QQI
Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

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

Part 1

Provider name	CCT College Dublin
Date of site visit	05-06-2019
Date of report	

Overall recommendations

Principal programme	Title	Diploma in Applied Software Development
	Award	Diploma
	Credit	60 ECTS – Level 7
Recommendation *Satisfactory OR Satisfactory subject to proposed conditions[1] OR Not Satisfactory*		Satisfactory subject to proposed conditions

Embedded programme	Title	N/A

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[1] Normally an application that fails to meet the criteria in any of its aspects will be considered as not satisfactory. Nevertheless, so as to ensure that the validation process will not be implemented unreasonably, if an independent evaluation finds that a programme virtually meets the validation criteria but needs some minor modifications, the independent evaluation could conclude "Satisfactory subject to recommended special conditions" where the special conditions prescribe the defects that require to be corrected.

Further, in exceptional cases the 'special conditions' may be used to identify parts of the application that are considered satisfactory on a stand-alone basis. For example, an application might propose a programme to be provided at two locations but the independent evaluation report may find the application satisfactory on condition that it be provided only at one specified location and not at the other. These conditions will not however be used to recommend that QQI can be satisfied with a programme conditional on a different QQI award (e.g. at a lower NFQ level or having a different CAS award title) being sought than the one identified in the application.

Evaluators

Evaluators		
Name	**Role**	**Affiliation**
Mr. Daniel Brennan	Chair	Former Registrar LYIT and Consultant with DNB Education Consultants
Dr. Catherine Peck	Secretary	Education Consultant
Ms. Anna Keller	Industry	Global Technology Director Coca Cola
Ms. Helen McMahon	Academic Expert	Lecturer in Department of Computing Letterkenny Institute of Technology
Prof. Martin McKinney	Academic Expert	Professor Emeritus of Computing Ulster University
Dr. Michael Collins	Academic Expert	Lecturer in Computer Science Technological University Dublin – City Campus (DIT)
Ms. Emma English	Student	BSc (Hons) in Computing Student NCI

Principal Programme

Names of centres where the programmes are to be provided	Maximum number of learners *(per centre)*	Minimum number of learners
CCT College Dublin	100	16
Microsoft Ireland, Leopardstown, Dublin	100	16

Enrolment interval *(normally 5 years)*	**Date of first intake**	Sep-2019
	Date of last intake	Aug-2024
Maximum number of annual intakes	2	
Maximum total number of learners per intake	100	
Programme duration (months from start to completion)	2 semesters FT 1 calendar year PT	
Target learner groups		
The programme is aimed at full time, part time, domestic and international learners. All applicants must have qualifications or experience which evidences intermediate competence in IT along with O6 or equivalent in Leaving certificate Maths. This programme is designed to include learners in a related industry and those seeking employment within the IT field. Also for those aspiring to progress their academic experience to a Level 7 NFQ award, specifically in the area of Applied Software Development. The programme is also aimed at those learners who have already attained a Level 7 NFQ award in a related discipline and are seeking to fine tune their knowledge of their chosen field with a specialist themed course of study.		
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Full time, Part-time	
The teaching and learning modalities	Lecture, lab, tutorial, workshop, group work.	
Brief synopsis of the programme		
The Diploma in Applied Software Development (60 ECTS) is designed for domestic and international learners seeking to develop their knowledge, skills and competence in the area of Software Development. This special purpose programme is designed to produce graduates with the attributes required of a Software Developer today, and with the ability to continue to develop		

knowledge, skill and competence to remain competitive and employable in a rapidly changing and expanding sector of the economy.

Learners will be provided with the opportunity to assimilate knowledge within an industry focused learning environment. This focus is maintained through the use of practical sessions in labs and workshops. Graduates will be qualified to assume entry level industry roles and/or to further advance their education.

Summary of specifications for teaching staff	
Profile	**WTE**
Academic and Professional: MSc required. However NFQ Level 8 in computer science, in Computer Science, Software Development, Software Engineering or equivalent is acceptable in cases where significant industrial experience is evident. Industry experience will be essential for those who do not have a postgraduate award.	2
Software Development and Associated Experience: A minimum of 1-year experience required, 3 years of experience preferred.	
Pedagogical: Teaching experience is desired. Completion of postgraduate CPD/Certificate in Teaching and Learning or similar preferred.	

Summary of specifications for the ratio of learners to teaching-staff	
Learning Activity	**WTE**
Laboratory work / Tutorials / Workshops	25:1
Lectures / Demonstrations	50:1

Other noteworthy features of the application

The panel would like to commend CCT on the following:

- Timely and well considered proposals that address well documented gaps in the marketplace.

- Coherent curricula that are relevant, up to date and incorporate a suitably integrated assessment strategy.

- A highly motivated and well-led team.

Part 1A Evaluation of the Case for an Extension of the Approved Scope of Provision (where applicable).

Comment on the case for extending the applicant's Approved Scope of Provision to enable provision of this programme.

N/A – This programme comes within the provider's current approved scope of provision.

Part 2 Evaluation against the validation criteria

QQI's validation criteria and sub-criteria are copied here in grey panels.

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.[2]	
Satisfactory (yes, no, partially)	**Comment**
	Yes

Principal programme

The panel is satisfied that the provider is eligible to apply for validation of the programme. Specifically:

- The provider's procedures for Quality Assurance (QA) fully comprehend the programme submitted for validation, and were approved by QQI following the provider's participation in the Reengagement for QA process in 2018.

- The provider has established procedures for access, transfer and progression that are detailed in section 4 (pp. 47 – 51) of the provider's submission for validation.

- The provider has complied with section 65 in respect of arrangements for the protection of enrolled learners and provided evidence in the form of a signed framework agreement providing for the HECA PEL scheme in Appendix 3 of the provider's application for validation.

- The application for validation has been signed by the provider's chief executive equivalent, the College president Neil Gallagher, confirming that the information provided is truthful and that CCT has endeavoured to address all applicable criteria. This declaration states that the programme complies with applicable statutory, regulatory and professional body requirements.

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[2] This 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.

Criterion 2

The programme objectives and outcomes are clear and consistent with the QQI awards sought
a) The programme aims and objectives are expressed plainly.
b) A QQI award is specified for those who complete the programme.
(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 *Policy and Criteria for Making Awards.*
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
(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
(i) The **minimum intended programme learning outcomes** and any other educational or training objectives of the programme are explicitly specified.[3]
(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.
For each minor award specified, the minimum intended module learning outcomes to qualify for the award are consistent with relevant QQI minor awards standards.[4]

Satisfactory (yes, no, partially)	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit to CCT, the panel is satisfied that the provider's application meets this criterion.

Specifically:

- The programme aims and objectives are clearly expressed in section 2.1 (pp. 22 – 25) of the provider's submission for validation.
- A QQI award is specified for learners who complete the programme (Diploma in Applied Software Development).
- The award title is consistent with unit 3.1 of QQI's *Policy and Criteria for Making awards*.
- The programme titles are consistent with the QQI awards sought, and clearly inform prospective learners or stakeholders regarding the nature of the programme.

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

[4] 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 minimum intended programme learning outcomes are explicitly specified in section 2.4 (pp. 26 – 27) of the provider's submission for validation; these are mapped against QQI awards standards in section 2.5 (pp. 28 – 31).

Modules

- The minimum intended module learning outcomes are explicitly specified for each of the programme's 9 modules in section 7 (pp. 69 – 125). These are consistent with QQI awards standards.

Criterion 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)

    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.[5]

    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.

        (i)   There is a satisfactory rationale for providing the programme.

        (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.

        (iii)   There is support for the introduction of the programme (such as from employers, or professional, regulatory or statutory bodies).

        (iv)   There is evidence[6] of learner demand for the programme.

        (v)   There is evidence of employment opportunities for graduates where relevant[7].

        (vi)   The programme meets genuine education and training needs.[8]

    c)   There are mechanisms to keep the programme updated in consultation with internal and external stakeholders.

    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.

    e)   The programme satisfies any validation-related criteria attaching to the applicable awards standards and QQI awards specifications.

Satisfactory (yes, no, partially)	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit to CCT, the panel is satisfied that the provider's application meets this criterion.

Within CCT's application documentation the programme concept is outlined in section 3.1 (pp. 33 – 35). During the site visit, the panel explored the development of the programme further in discussions with CCT staff. CCT representatives noted that feedback the provider receives from industry and employers consistently highlights skills shortages in this area.

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[5] 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.

[6] This might be predictive or indirect.

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

[8] 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.

This feedback is echoed in reports in the sector, including the 2018 LinkedIn report. The development of the Diploma in Applied Software Development responds directly to this.

The development of the programme in close consultation with Microsoft and other prospective employers in industry is outlined in the application documentation in sections 3.3 (pp. 35 – 36) and 3.6 (pp. 37 – 38). In the latter section, CCT draws upon the National Skills Bulletin 2018, which indicated that over a five year period from 2012 employment in ICT had increased by 19%. This bulletin further reported that despite a sufficient supply of graduates to meet replacement and demand in the sector, the evolution of skillsets required had resulted in shortages, including for software developers/engineers and web developers. CCT highlights how the proposed programme addresses this skills gap and workforce need. Appendix 2B of the application documentation contains letters of endorsement from numerous companies who have contributed to the design and development of the programme. These include Microsoft Ireland, DXC.technology (Ireland), Neueda Ireland, Spanish Point Technologies Ltd., IBM Ireland and Survey Monkey, among others. Pursuant to validation, the CCT Industry Forum will be a valuable mechanism for ensuring the programme is updated.

During discussion, the panel queried the involvement of learners in informing the development of the programme. CCT responded that existing learner representatives at the provider had been invited to make input, rather than prospective learners. Members of the panel noted that in addition to the extensive industry consultation the provider had undertaken and the input from learners, future programme development might also benefit from greater input from social or community representatives. CCT staff acknowledged that this sector had not been actively engaged with at the provider, but that this may be of value moving forward.

CCT has undertaken comparisons with Level 7 programmes offered by Dorset College (Certificate in Java Programming), IT Tralee (BSc Computing with Software Development) and IT Sligo (BSc in Computing with Software Development. The proposed programme differs from these in targeting a mature learner, typically with IT experience, for part-time study with an evening and weekend schedule. This distinction further contributes to the rationale for the proposed programme, as it provides for a market that is not catered to by the comparators.

Criterion 4

The programme's access, transfer and progression arrangements are satisfactory
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 satisfied[9].
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.
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 (CEFRL[10]) in order to enable learners to reach the required standard for the QQI award.
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).
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.
f) The programme title (the title used to refer to the programme):-
(i) Reflects the core *intended programme learning outcomes*, 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.
g) The programme title is otherwise legitimate; for example, it must comply with applicable statutory, regulatory and professional body requirements.

Satisfactory (yes, no, partially)	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit to CCT, the panel is satisfied that the access, transfer and progression arrangements in place are satisfactory.

Section 4 (pp. 47 – 51) of the provider's application documentation includes clearly established entry procedures, including for the recognition of prior learning. Information pertaining to transfer and progression. Section 4.1 contains a statement on information made available to learners that complies with the QQI 2016 *Core Statutory Quality Assurance Guidelines*. In addition, CCT identify that they intent to also publish the intended

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[9] 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

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

learning outcomes of the programme, teaching and learning strategies and available resources. CCT has experience of providing information to learners in relation to the provider's established programmes, and examples of the provider's current practices in this area demonstrate compliance, including in relation to arrangements for Protection of Enrolled Learners (PEL).

During the site visit, the panel sought to understand the entry procedures in more depth. CCT representatives provided an overview of these, emphasizing the provider's approach of interviewing students individually and discussing with them whether the course is appropriate to their needs at that time. This culture of face to face, individualized discussion is made possible due to the small size of the college, with admissions staff undertaking over 200 interviews with potential students each year. Where a student is applying for RPL or where a need is otherwise identified, a potential learner is referred on to a member of the IT academic staff who is trained to undertake a technical assessment for RPL. It is the view of the panel that the processes in place at CCT give the provider a reasonable assurance that learners accepted to the programme will be able to succeed.

The rationale for the named award title is included in the provider's application documentation in section 2.2. In this section, CCT identify that the award of Diploma was chosen because consultation had identified graduate attributes which required a depth and breadth of curriculum to facilitate their attainment that warranted an award of 60 ECTs at NFQ Level 7. That consultation also confirmed that a specialisation of software development was also in demand, a finding that has been central to the proposed programme's development. The award title therefore appropriately reflects the intended programme learning outcomes and the written curriculum, and it is the panel's view that as a result it will be meaningful to the learners.

Criterion 5

The programme's written curriculum is well structured and fit-for-purpose

    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.

    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.

    c) Each module and stage is suitably structured and coherently oriented towards the achievement by learners of the intended *programme* learning outcomes.

    d) The objectives and purposes of each of the programme's elements are clear to learners and to the provider's staff.

    e) The programme is structured and scheduled realistically based on sound educational and training principles[11].

    f) The curriculum is comprehensively and systematically documented.

    g) The credit allocated to the programme is consistent with the difference between the entry standard and minimum intended programme learning outcomes.

    h) The credit allocated to each module is consistent with the difference between the module entry standard and minimum intended module learning outcomes.

    i) Elements such as practice placement and work based phases are provided with the same rigour and attentiveness as other elements.

    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.[12]

Satisfactory (yes, no, partially)	Comment
	Partially

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has partially satisfied this criterion.

The programme is coherently structured and the modules are well integrated, notably through the use of an integrated, cross-modular approach to assessment. In section 5.4 of the application documentation, CCT emphasize that first semester modules lay a foundation for the more advanced modules of the second semester. The second semester begins by leveraging the knowledge gained by learners in the first half of the Programming – Object Oriented Approach module, which spans 2 semesters in duration.

CCT has undertaken detailed mapping of module and programme outcomes. This is presented in the application documentation in section 7, along with the clearly stated aims and objectives for each of the individual modules. The curriculum is generally well documented, and includes sufficient detail to make clear the difference between entry

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

standards and learning outcomes for the programme overall. However, as reflected in the recommended special condition of validation in this report, the panel advises CCT to undertake careful proofreading of this section for version control and proofing errors.

There are no practice placement or work based phases included in the programme.

Modules

During the site visit, the panel sought to understand specific aspects of content, structure and assessment in particular modules in more detail. Discussions included:

- Module 1, Digital Transversal Skills (also a component of another diploma, concurrently proposed by the provider for validation). The panel queried how this would be differentiated for learners in the Diploma of Applied Software Development. CCT staff confirmed that while the base content was the same as in other programmes, the context of problems, assessment tasks and applications was differentiated for learners in this particular programme.
- Module 3, Problem Solving and Mathematics for IT. The panel noted that the content listed appeared dense for a 5 ECTs module. CCT staff explained the approach in this module emphasised exposure rather than depth, with learners having the opportunity to attempt practical application of their learning in other modules. The panel further noted that the student support service for maths CCT has made a commitment to will be necessary for some learners.
- Module 4, Software Development Processes. The panel identified that some overlap was represented in relation to use case modelling, and that the module title could be reconsidered.
- Module 7, Advanced Requirements Gathering. The panel queried assessment overlap, and suggested that elicitation techniques and project management were gaps in this area.
- Module 9, Strategic Business IT. The panel noted the strength of this module in focusing on how IT engages with business, and noted that some topics also appeared to be repeated here. As per Module 1, this is also a component of another module, and assessment will also be differentiated by the context of problems, assessment tasks and applications by programme.

The panel was generally satisfied with the responses of CCT's representatives, which aligned to the written curriculum presented in the application documentation and to good practice in teaching and learning more broadly. However, the panel expressed some concerns in relation to specific modules that pertain to workload, overlaps and titling. These are noted as recommendations in this report.

Criterion 6

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

   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).
   b) The programme has an identified complement of staff[13] (or potential staff) who are available, qualified and capable to provide the specified programme in the context of their existing commitments.
   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.
   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 development[14] opportunities[15].
   e) There are arrangements for programme staff performance to be reviewed and there are mechanisms for encouraging development and for addressing underperformance.
   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.

Satisfactory (yes, no, partially)	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

Section 8 of the provider's application documentation outlines details pertaining to programme staff. This includes the programme director and programme board as well as the complement of programme related staff (lecturers & student support). The documentation also contains information pertaining to CCT's recruitment plans for additional lecturing staff, pursuant to validation of the proposed programme.

During the site visit the provider presented on its existing staff capacity to the panel, which is sufficient to cover a September 2019 intake of the proposed programme. This included

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[13] 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.

[14] 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.

[15] 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 identification of additional administrative, student services and facilities staff alongside lecturers. CCT has a complement of full time staff, but also employs practising IT specialists in lecturing roles to ensure close links are maintained between theory and practice, as well as education and employment.

CCT gave an unequivocal assurance to the panel regarding its commitment to recruit additional staff in advance of the second semester of the proposed programme. The provider notes that staff recruitment has not proved a challenge at CCT to date; unsolicited applications are common, and staff turnover is very low. Practices including a four day week for full time staff, and flexibility in meeting times for part-time staff have contributed to this.

The provider's application documentation outlines staff development and performance management arrangements in place at CCT. These include a formal induction for new lecturers, classroom observations, annual training plans and support for engaging with wider Communities of Practice via conference, working group and seminar attendance.

Criterion 7

There are sufficient physical resources to implement the programme as planned

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).

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:
   (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

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).

d) There is a five-year plan for the programme. It should address
   (i) Planned intake (first five years) and
   (ii) The total costs and income over the five years based on the planned intake.

e) The programme includes controls to ensure entitlement to use the property (including intellectual property, premises, materials and equipment) required.

Satisfactory (yes, no, partially)	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

The physical resources required by the programme are specified in section 9 of the application documentation. This section contains precise information, identifying the number of teaching spaces available on the premises, as well as square footage of library space and quiet study areas. The CCT campus has Disability Access Certification for the whole building, an induction loop for use with hearing aids and 6 disabled toilets. During the site visit CCT staff noted that the premises in Westmoreland Street have capacity for over 550 learners. Currently during evenings and weekends this is underutilised, with less than 100 learners typically in attendance. CCT notes that a strategic partnership exists with Microsoft, but that this will not involve programme delivery in Microsoft's facilities. If an alternative site were required, CCT would undertake a site check against a checklist, which would include capacity for provision of student services at the site, which would then be reviewed by the academic council.

To facilitate the learning and teaching strategy planned for the proposed programme, learners will require access to traditional classrooms, collaborative learning areas with internet access and IT labs with access to relevant technology and software. These are available at the current premises. Learners at CCT typically elect to use a Bring Your Own Device (BYOD) system. However, laptops are available for loan by students who for any reason need or prefer to utilise these on a temporary or longer term basis.

During the site visit, the panel discussed with the provider that the current lease on its Westmoreland Street premises does not extend to cover the full five years of the validation period, and that this poses a risk to the proposed programmes. CCT acknowledges this, and notes that this is an issue under constant review and an agenda item at every Board of Directors meeting. Measures to mitigate the potential risk, including identification of potential additional premises, have been undertaken. However, CCT's intent is to remain in its current location.

Criterion 8

The learning environment is consistent with the needs of the programme's learners	
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. 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. 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.	
Satisfactory (yes, no, partially)	**Comment**
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

CCT is an experienced provider, with a track record in education in the discipline domain. The physical environment provides appropriate resources to support learner achievement of the programme learning outcomes. Support systems are in place (see criterion 11), and teaching staff are appropriately qualified experts.

The proposed programme is delivered face to face, which ensures learners will have ample opportunity for interaction with teaching staff, many of whom are also active practitioners in industry. CCT routinely invites guest speakers to deliver programme specific and open house guest lectures. The emphasis on social learning, teamwork and team assessment within the proposed programme will encourage learner interaction with peers.

There are no practice placement or work based phases included in the programme.

Criterion 9

There are sound teaching and learning strategies	
a) The teaching strategies support achievement of the intended programme/module learning outcomes. b) The programme provides authentic learning opportunities to enable learners to achieve the intended programme learning outcomes. 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). **d)** Learning is monitored/supervised. **e)** Individualised guidance, support[16] and timely formative feedback is regularly provided to enrolled learners as they progress within the programme.	
Satisfactory (yes, no, partially)	**Comment**
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

The provider's Institutional Teaching, Learning & Assessment Strategy is provided in Appendix 6 of the application documentation. The strategy is well expressed, and outlines approaches used to foster a student centred culture of learning at the provider. These include the implementation of Problem Based Learning and other methods that foster active learning, independent enquiry and critical thinking. During the site visit, in the panel's discussions with the provider, social learning approaches were frequently referenced. These included the student mentoring programme at CCT and the use of team work in assessed and non-assessed learning activities.

Notably, the approach to teaching and learning at CCT takes a programme level view. A programme teaching and learning strategy which includes formative assessment is provided in section 5.5 of the application documentation. Learning from previous modules is applied in those undertaken subsequently, and leveraged in those undertaken concurrently. Additional supports and guidance are available to learners (see criterion 11), and the provision of feedback to learners in a timely manner is considered a priority.

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[16] 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
    a)   All assessment is undertaken consistently with ***Assessment Guidelines, Conventions and Protocols for Programmes Leading to QQI Awards***[17]
    b)   The programme's assessment procedures interface effectively with the provider's QQI approved quality assurance procedures.
    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.[18]
    d)   The programme includes formative assessment to support learning.
    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.[19]
    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.
    g)   There are sound procedures for the moderation of summative assessment results.
    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.[20]	

Satisfactory (yes, no, partially)	**Comment**
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

CCT is an experienced provider with a track record of assessment that aligns to QQI guidelines and interfaces with CCT's approved QA procedures.

Section 5.5 of the application documentation outlines the proposed programme's teaching and learning strategy, which includes a focus on formative assessment. This section also outlines the provider's Integrated Assessment approach, which enables students to complete projects utilising the skills they have developed across two or three modules. These projects are then assessed for those skills elements individually and those marks contributed back to the relevant module as a form of continuous assessment. The approach is seen to mirror the integration of skills characteristic of the workplace, and to reduce learner workload.

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[17] See the section on transitional arrangements.

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

[19] 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.

[20] 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).

During the site visit, a hard copy of an assignment brief for a cross-modular assessment piece was distributed for exemplification. In discussion with the panel members, CCT staff provided clear rationales for the assessment structures and strategies within individual modules and for the programme overall.

Criterion 11

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

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.

b) Information is provided about learner supports that are available to learners enrolled on the programme.

c) Specific information is provided to learners enrolled on the programme about any programme-specific appeals and complaints procedures.

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.

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.

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.

g) The programme provides supports for enrolled learners who have special education and training needs.

h) The programme makes reasonable accommodations for learners with disabilities[21].

i) If the programme aims to enrol international students it complies with the *Code of Practice for Provision of Programmes to International Students*[22] 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.

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).

Satisfactory (yes, no, partially)	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

CCT is an established provider with a track record of facilitating a supportive learning environment. Students at CCT are provided with a staggered induction that introduces them to the provider's QA, library services, careers services and social programme. A learner handbook is available online, and students are directed to this resource during induction. The learner handbook contains information regarding appeals and complaints procedures, as well as information pertaining to plagiarism and academic integrity.

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[21] 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).

[22] See Code of Practice for Provision of Programmes to International Students (QQI, 2015)

Student services refers students to 3 medical clinics and 3 counsellors in the area who charge student rates and provide multilingual services. Financial support is available on a case by case basis.

In addition to the learner handbook, CCT provides each enrolled learner with a programme specific handbook in both hard copy and online. The learning environment at CCT has recently been enhanced through extension of the library's resources, and the establishment of a Centre for Teaching and Learning that facilitates academic literacy focused workshops and support sessions for students. CCT has made a commitment to the provision of mathematics support through this channel as required in the future. CCT's premises are accessible (see criterion 7), and the provider makes all reasonable accommodations as needed for learners with disabilities.

A class representative system is used at CCT to ensure the learner voice contributes to decision-making. The principles of student engagement published by the National Student Engagement Programme (NStEP) have been distributed among academic staff, and CCT intends to engage further with NStEP when class representative training applications are reopened in the future.

Pursuant to validation of the proposed programme, CCT has made a commitment to ensure all student services currently available to full-time students are equally available to part-time students attending in the evenings and at weekends.

Criterion 12

The programme is well managed

   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.

   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-the-purpose of identifying which centres are suited to provide the programme and which are not.

   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.

   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.

   e) Quality assurance[23] is intrinsic to the programme's maintenance arrangements and addresses all aspects highlighted by the validation criteria.

   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.

   g) The programme operation and management arrangements are coherently documented and suitable.

   h) There are sound procedures for interface with QQI certification.

Satisfactory	Comment
	Yes

Principal programme

Following review of the provider's application documentation and a site visit, the panel finds that the provider has satisfied this criterion.

CCT's QA was approved by QQI in 2018 through the current reengagement process. During that process the provider's governance structure, assessment practices and access, transfer and progression procedures were reviewed and approved. The application documentation for the proposed programme reflects an interface with the provider's QA procedures, and discussions with provider staff during the site visit were also well aligned to these.

The application documentation for the proposed programme contains programme-specific information with regard to recruitment and selection of suitable staff, and the selection of physical resources.

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[23] See also QQI's Policy on Monitoring (QQI, 2014)

Overall recommendation to QQI

1.1 Principal programme

Select one	
	Satisfactory (meaning that it recommends that QQI can be satisfied in the context of unit 2.3) of Core policies and criteria for the validation by QQI of programmes of education and training;
X	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);[24]
	Not satisfactory.

1.1.1 Reasons[25] for the overall recommendation

Summary of recommended special conditions of validation

The panel notes that the programme documentation presented for validation contained some inconsistencies. The panel is confident these are errors which have emerged from version control and drafting processes. Exemplification is provided on p.33 which refers to a table 2.2 that does not appear within the main document, on p.111 where stakeholders appears as steak holders, and in section 5.1.2 where the module ECTs listed add to 50. These examples are indicative, not exhaustive, and the entire document should be carefully reviewed.

The panel has therefore identified as a special condition of validation that CCT carefully review the programme documentation to remove typographical errors and inaccuracies.

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[24] Normally an application that fails to meet the criteria in any of its aspects will be considered as not satisfactory. Nevertheless, so as to ensure that the validation process will not be implemented unreasonably, if an independent evaluation finds that a programme virtually meets the validation criteria but needs some minor modifications, the independent evaluation could conclude "Satisfactory subject to recommended special conditions" where the special conditions prescribe the defects that require to be corrected.

[25] Give precise reasons for the conclusions organised under each of the 12 criteria (for the programme and each embedded programme and any modules proposed to lead to QQI awards) citing supporting evidence. If any criteria or sub-criteria are not met by the application this must be stated explicitly giving precise reasons with evidence. A "Not Satisfactory" recommendation may be justified if any one of the applicable criteria or sub-criteria are not demonstrated to be satisfied.

Summary of recommendations to the provider

With regard to the content, structure and weighting of individual modules, the panel makes the following recommendations:
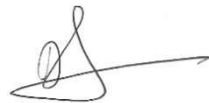
1. Software Development Processes could be renamed Object Oriented Analysis and Design, and the content that overlaps with Advanced Requirements Gathering replaced.
2. Advanced Requirements Gathering could then be renamed, for example, Software Development Processes and include project management content.
3. Reconsider the content and volume for the Mathematics for Computing (Problem Solving and Mathematics for IT) module in light of panel discussion regarding student workload.

The panel acknowledges that CCT intends to provide mathematics support parallel to current academic literacy support, pursuant to programme validation. The panel recommends that they proceed with this as a priority.

Declarations of Evaluators' Interests

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

Panel chairperson: Date: 19 June 2019

1.2   Disclaimer

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