QQI
Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

Independent Evaluation Report on an Application for Validation of a Microcredential Programme

Part 1. Provider details

Provider name	National College of Ireland
Date of report	15/11/20

Section A. Overall recommendations

Programme	**Code**	PG24438
	Title	Certificate in Software Development
	Award Class	Special Purpose Award
	Credit	10 ECTS
	NFQ Level	8
	Recommendation *Satisfactory OR Satisfactory subject to proposed conditions OR Not Satisfactory*	Satisfactory subject to proposed condition

Section B. Expert Panel

Name	Role	Affiliation
Andrew Finn	Subject Matter Expert	Registrar, Fasttrack to Information Technology
Irene Murtagh	Subject Matter Expert	TU Dublin
Dr. Brendan Ryder	Subject Matter Expert	Dundalk IT

Section C. Programme Profile Information (as supplied by provider)

Brief synopsis of the programme

The Software Development (SDev) micro-credential programme is a 10 Credit Level 8 programme, that will be available to learners online and through blended learning over 12 weeks. The SDev micro-credential programme has been designed to provide learners with a baseline understanding and knowledge of the key technical skills, terminologies, tools and stages of the software development process. The programme aims to give learners a systematic understanding of how computers can be used to solve problems, and therefore will introduce learners to the principles of programming and the object-oriented approach to program design and implementation. The micro-credential will enable learners to design, implement and debug programs using an object-oriented programming language.

It is aimed at upskilling/ reskilling learners from non-technical backgrounds on the fundamental skills needed to enter the computing industry. This programme would also be relevant for non-technical staff working within companies to enhance their ability to work with and understand their colleagues in technical teams. It also would enable those in non-technical roles to apply for opportunities within technical departments within their workplace. This micro-credential programme could also be considered as a 'taster course' for those that might wish to consider retraining or pursuing a career in computing or exploring study opportunities within NCI or elsewhere. Its content spans features that are often are listed within job descriptors for Junior Programmers and Software Engineers, principally:

- Java
- Object Orient Programming
- Version Control

In addition to the technical knowledge, graduates of this programme will also learn important soft skills that can be applied in the workplace such as:

- Problem solving
- Team based programming
- Communication & Documentation

Target learner groups

The target learner profile is unchanged from the validated principal programme (Certificate in Science in Computing) which is aimed at three core audiences:

- Learners who do not meet the entry criteria for level 9 programmes
- Learners who have time constraints caused by family or work commitments that make the time commitments of the Higher Diploma programme unfeasible or Learners who are new to Computing as a subject area and who are seeking a low stakes introductory course.
- Learners who require more flexible delivery options.

Rationale for Programme

Evidence of learner demand

Duration and Enrolment					
	First Intake Date	**Duration (months)**	**Cohorts / Intakes per Annum**	**Enrolment i.e. learners per Intake**	
			Maximum	**Minimum**	**Maximum**
Full-Time	N/A				
Part-Time	Jan 2021	3 months	3	30	200

Panel Commentary on Section C: Programme Profile Information

This should set out the panel's views on the adequacy of the case made by the provider for the approval of this programme as a viable, stand alone offering for the target learner group. The panel should take into account the proposed rationale, evidence of market demand, learner numbers, entry criteria, and marketing information. The information on objectives, MIPLO's and marketing information, rationale, should also be checked.

Where the proposed award is at a different NFQ level to that of its parent programme e.g. where the programme is taken from Stage 1 of a validated Level 8 programme, the panel should check the MIPLO to Level Indicator mapping for consistency.

The following Validation Criteria as they apply to this programme should be borne in mind, while also recognising that the programme of which this microcredential is a module, has already been deemed to have met these criteria.

***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)*

***Criterion 2:** The programme objectives and outcomes are clear and consistent with the QQI awards sought*

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

***Criterion 12**: The programme is well managed*

Rationale, Learner Demand, Viability:

The microcredential module proposed by NCI is in response to the recovery plans outlined by the Minister and industry in response to the COVID pandemic. The overarching and recent validation of this module within its parent programme, the Certificate in Science and Computing, details Java as the most popular coding language at present. The prevalence of Java in the contemporary software development environment is an accurate reflection. It is encouraging to see this consideration reflected in this microcredential module/certificate.

The proposed module is also short duration, flexible, and delivered blended over 12 weeks. NCI appears by completing the most recent and broader validation to have satisfied all of the QQI requirements for blended and online learning, so a capacity to deliver this over the proposed full five-year validation has been established. This consideration is critical as the Summary Programme Schedule outlines that between years 1 and 3, that 1800 learners may avail of this programme offering.

Proposed Award - consistency with NFQ:

The proposed title for the progamme is adequately differentiated from the larger credit-bearing Certificate in Science and Computing. However, the current programme title is quite generic and does not reflect the *'taster'* nature of this 10 ECTS certificate. Certificate in Software Development Practice or similar may be a good choice as programme title if the naming conventions permit.

Learner Interests: - (Information, QA, Supports, Benefits / Skills accruing from programme):

The programme's aim and objectives are clear, but should emphasise explicitly that this programme is an introduction to software development. This should be presented in a short and explicit statement, followed by the broader aims and objectives already formulated when disseminated to candidates or enrolled learners.

Section D. Programme Content, Delivery and Assessment

Summary of specifications for teaching staff		
Role	**Profile**	**WTE**
Lecturer	Lecturers will have a Bachelor or/and Master's degree in computing or cognate discipline with academic experience delivering modules in ICT at level 8 on NFQ and may have industry experience also.	1.5
Programme Director	The Programme Director is responsible for the academic management of the programme and may also be a lecturer on the programme. The programme director will have at least a Masters or PhD qualification in computing or a related discipline.	0.5
Programme Coordinator	The Programme Coordinator will have previous experience in providing administrative support to faculty involved in the delivery of an academic programme.	0.5

Mode(s) of Delivery
Blended with workplace application

Assessment Strategy

Panel Commentary on Section D: Programme Content, Delivery and Assessment

This should set out the panel's views on the programme content, mode(s) of delivery and assessment, human and ICT resources. If the parent programme is more than a year old, the currency of module content and supporting technology should be checked.

The following Validation Criteria as they apply to this programme should be borne in mind, while also recognising that the programme of which this microcredential is a module, has already been deemed to have met these criteria.

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

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

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

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

***Criterion 10:** There are sound assessment strategies*

Currency of content:

As outlined, the indicative content details solid foundational learning in the critical functional and introductory elements of software development. A substantial level of industry input was garnered in the parent validation. No noticeable gaps are noted, and indeed the content to be delivered across the 12 weeks charts a logical sequence that builds upon the initial learning. Learners who complete this programme should gain the intended systematic understating of how computers can be used to solve problems.

Delivery mode(s):

The online delivery approach is consistent with the aims of this microcredential implementation. The staff and student ratio for a foundational level programme is relatively high at 1:60. It would be helpful to understand **how** an enrolled learner would access online supports within the NCI institution. Ready access to this support is crucial, though NCI has listed a comprehensive array of supports in S*ection 2.12* of the microcredential document.

Assessment strategy:

The assessment strategy ensures a broad use of continuous assessment, project, and terminal exam. This approach is commendable for a programme of such a short duration and should yield a comprehensive assessment of the learning outcomes. An approach to reassessment is also considered and planned.

Human and ICT resources:

Consideration should be given to how this programme will be implemented and managed if the full intake figures are realised.

Part 2. Overall recommendation to QQI

2.1 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;
√	**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);
	Not satisfactory.

Reasons for the overall recommendation

1. A small change of programme title will reinforce the introductory nature of this microcredential. This may also facilitate the programme in finding a relevant placement among the wider NCI IT programme offerings.

2. The panel found some descriptions of the intended delivery approach confusing. The provided documentation outlines a 100% online delivery approach (*Section 2.9* Programme Descriptor) and, in other sections, alludes to a blended learning approach. Some typos were also noted, i.e., Summary Programme Schedule allocation of marks. The panel recommends that NCI review the aligned documentation content and clarify the intended delivery approach for this microcredential, i.e., 100% online, blended or both.

Any other observations:

1. NCI should make explicit provision for enrolled learners as regards access to lecturer and institutional supports available to inform their learning and academic progress from the outset of programme induction.

2. The transfer arrangements noted in *Table 2.6* of the Programme Descriptor could do with an addition that outlines the possible paths for learner progression upon completing this specific microcredential.

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

1. NCI to agree upon an amended programme title for this microcredential within three months of issuance of this panel report.

Declarations of Evaluators' Interests

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

Panel Members: Andrew Finn, Brendan Ryder, and Irene Murtagh.

Panel chairperson: Andrew Finn Date: 17/11/20

Signed: 

2.2 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.

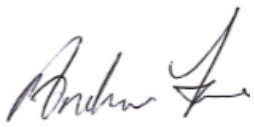
Panel acknowledgment of NCI response to the Conditions of Validation and the Observations of the Panel

Condition 1	Action Taken	Panel's Comment
A small change of programme title will reinforce the introductory nature of this micro-credential. This may also facilitate the programme in finding a relevant placement among the wider NCI IT programme offerings.	The title will be changed to Certificate in "Software Development Fundamentals" to reflect the introductory nature of the programme.	The Panel is in agreement with the title change as outlined.
Condition 2	**Action Taken**	**Panel's Comment**
The panel found some descriptions of the intended delivery approach confusing. The provided documentation outlines a 100% online delivery approach (Section 2.9 Programme Descriptor) and, in other sections, alludes to a blended learning approach. Some typos were also noted, i.e., Summary Programme Schedule allocation of marks. The panel recommends that NCI review the aligned documentation content and clarify the intended delivery approach for this micro-credential, i.e., 100% online, blended or both.	The documentation has been reviewed and all errors corrected. The programme is both 100% online and follows a blended approach, mixing synchronous online teaching and asynchronous directed e-learning. Section 2.1.5 (Teaching and learning (including formative assessment) strategy) has been updated to reflect the above more accurately, i.e. "This is a Blended Learning programme, with a mix of Synchronous Online Classes and Asynchronous Directed E-Learning. Both the online classes and the directed e-learning will be accessed 100% online." This section was also updated to explicitly state the strategy used between synchronous and asynchronous material. The Summary Programme Schedule has been updated to reflect QQI's new teaching and learning models and to better reflect Blended Learning mix.	The Panel notes the changes outlined and is satisfied with NCI's clarity on the delivery approach.
Observation 1	**Action Taken**	**Panel's Comment**
NCI should make explicit provision for enrolled learners as regards access to lecturer and institutional supports available to inform their learning and academic progress from the outset of	Clarification has been included in Section 2.12 of the micro-credential document regarding how enrolled learners will access supports.	The Panel agrees with the inclusion in *Section 2.2* of how learners will access supports.

programme induction.		
Observation 2	**Action Taken**	**Panel's Comment**
The transfer arrangements noted in Table 2.6 of the Programme Descriptor could do with an addition that outlines the possible paths for learner progression upon completing this specific micro-credential.	The table in Section 2.6 has been amended to indicate all the related ICT programmes that learners are available to learners as a next or final destination. Each programme is also specified as a transfer or progression option.	The Panel note that the updated Table with progression arrangements makes explicit the transfer and progression route logically.

The panel is satisfied that the Programme Team have sufficiently responded to each of the Conditions of Validation and the Observations of the Panel, and have modified the programme documentation accordingly.

Signed by Panel Chair,



Andrew Finn.

Date: 19/11/20