

# CERTIFICATE OF VALIDATION

<b>Provider Name</b>	CCT College Dublin
<b>Date of Validation</b>	18-Jul-19

	<b>First intake</b>	<b>Last intake</b>
<b>Enrolment Interval</b>	Sep-19	Aug-24

	Code	Title	Award	Duration (Months)	Annual Intakes
<b>Principal Programme</b>	PG24098	Master of Science in Applied Software Development	Master of Science (Major Award at NFQ Level 9) 9M20743 90 credits	15 months FT 2 years 3 months PT	2
<b>Embedded Programmes</b>	PG24099	Postgraduate Diploma in Science in Applied Software Development	Postgraduate Diploma (Major Award at NFQ Level 9) 9M20744 60 Credits	1 year FT 2 years PT	2

## Principal Programme

### 5 Year Plan: Planned total enrolment i.e. aggregated across all intakes and all approved centres

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Minimum Intake into first year</b>	64	64	64	64	64
<b>Maximum Intake into first year</b>	120	120	120	120	120

#### Target Learner groups

This programme is intended for graduates of level 8 NFQ major awards in ICT/Computing (or equivalent), aspiring to progress their academic experience to post graduate level, specifically in the area of software development. The programme is available to learners who present with undergraduate degrees in ICT/computing disciplines. Relevant experience in the area of software development and/or professional certification, may also be considered.

#### Brief Synopsis of the programmes

The MSc in Applied Software Development (90 ECTS) is designed for full-time, part-time, domestic and international, level 8 (Irish NQF) major award-holders or equivalent in ICT/computing disciplines seeking to develop their knowledge, skills and competence in the area of software development. The programme is a specialist, post graduate computing degree designed to produce graduates with the attributes required of software developers today and the ability to continue to develop knowledge, skill and competence to remain competitive and employable in an ever-advancing sector. The programme consists of 60 credits of taught module work and 30 credits of an applied development project. Learners who decide to leave the programme, after completing the taught elements only, may be entitled to receive the embedded exit award of a Post Graduate Diploma in Science in Applied Software Development. Graduates will be qualified to assume advanced industry roles and/or to further their education at level 10.

#### Delivery mode: full-time / part-time

Full time and Part-Time

#### Teaching and Learning Modes

Lecture, lab, tutorial, workshop, project supervision, directed group work, and directed reading.

#### Approved countries

Ireland

**Physical resource requirements**

Standard computing resources required to deliver level 9 programmes in computing. Classrooms, IT Laboratories, (including relevant hardware and software), student support resources including library, study and meeting facilities, etc.

**Staff Profiles**

<b>Qualifications and Experience</b>	<b>WTE</b>
A minimum of an MSc in Computing, Computer Science, Software Development or domain equivalent, is essential. Experienced delivering and assessing higher education computing modules, ideally including at level 9 is both advantageous and desirable. Where a lecturer is not experienced in level 9 module delivery and assessment, they will be required to complete the CCT Certificate in Teaching, Learning and Assessment at Level 9, and will also be assigned a mentor with level 9 experience, as per CCT QA Policy.	2
PhD in Computing, Computer Science, Software Development or equivalent. Experience delivering level 9 computing modules.	2
MSc or PhD in Computing with experience managing level 8 or 9 computing programmes including project/dissertation modules.	1

**Approved Centres**

<b>Centre</b>	<b>Minimum Number of learners per intake per Centre</b>	<b>Maximum Number of learners per intake per Centre</b>
CCT College Dublin (CCT), 30-34 Westmoreland St., Dublin 2	38	120

**Learner Teacher Ratios**

<b>Learning Activity</b>	<b>Ratio</b>
Lectures / Demonstrations	1:60
Laboratory work / Tutorials / Workshops	1:30
Applied Software Development Project	1:4

**Programme being replaced by this programme**

<b>Prog Code</b>	<b>Programme Title</b>	<b>Validated</b>	<b>To Close</b>
NA	N/A		

# Embedded Programme

Code	Title	Award	Duration (Months)	Annual Intakes
PG24099	Postgraduate Diploma in Science in Applied Software Development	Postgraduate Diploma 9M20744 60 credits	1 year FT 2 years PT	0 - Exit

## 5 Year Plan: Planned total enrolment i.e. aggregated across all intakes and all approved centres

	Year 1	Year 2	Year 3	Year 4	Year 5
Minimum Intake into first year	N/A - Exit				
Maximum Intake into first year	N/A - Exit				

### Target Learner groups

This programme is intended for graduates of level 8 NFQ major awards in ICT/Computing (or equivalent), aspiring to progress their academic experience to post graduate level, specifically in the area of software development. Learners who present undergraduate degrees, along with relevant experience in the area of software development and/or professional certification, may also be considered (RPEL route).

### Brief Synopsis of the programmes

The PG Diploma in Applied Software Development (90 ECTS) is designed for full-time, part-time, domestic and international, level 8 (Irish NQF) major award-holders or equivalent in ICT/computing disciplines seeking to develop their knowledge, skills and competence in the area of software development. The programme is a specialist, post graduate computing degree designed to produce graduates with the attributes required of software developers today and the ability to continue to develop knowledge, skill and competence to remain competitive and employable in an ever-advancing sector. The programme consists of 60 credits of taught module work. Graduates will be qualified to assume advanced industry roles and/or to further their education at level 10.

### Delivery mode: full-time / part-time

Full-time, Part-time

### Teaching and Learning Modes

Lecture, lab, tutorial, workshop, project supervision, directed group work, and directed reading.

### Approved countries where enrolled learners will be based

Ireland

### Physical resource requirements

Standard computing resources required to deliver level 9 programmes in computing. Classrooms, IT Laboratories, (including relevant hardware and software), student support resources including library, study and meeting facilities, etc.

**Staff Profiles**

<b>Qualifications and Experience</b>	<b>WTE</b>
A minimum of an MSc in Computing, Computer Science, Software Development or domain equivalent, is essential. Experienced delivering and assessing higher education computing modules, ideally including at level 9 is both advantageous and desirable. Where a lecturer is not experienced in level 9 module delivery and assessment, they will be required to complete the CCT Certificate in Teaching, Learning and Assessment at Level 9, and will also be assigned a mentor with level 9 experience, as per CCT QA Policy.	2
PhD in Computing, Computer Science, Software Development or equivalent. Experience delivering level 9 computing modules.	2
MSc or PhD in Computing with experience managing level 8 or 9 computing programmes including project/dissertation modules.	1

**Approved Centres**

<b>Centre</b>	<b>Minimum Number of learners per intake per Centre</b>	<b>Maximum Number of learners per intake per Centre</b>
CCT College Dublin (CCT), 30-34 Westmoreland St., Dublin 2	32	120

**Learner Teacher Ratios**

<b>Learning Activity</b>	<b>Ratio</b>
Lectures / Demonstrations	60:1
Laboratory work / Tutorials / Workshops	30:1
Applied Software Development Project	4:1

**Programme being replaced by this programme**

<b>Prog Code</b>	<b>Programme Title</b>	<b>Validated</b>	<b>To Close</b>
NA	N/A		

# Conditions of Validation of the Programmes Covered by this Certificate of Validation

## Part 1: Statutory Conditions of Validation

The statutory (section 45(3) of the 2012 Act) conditions of validation are that the provider of the programme shall:

- 1.co-operate with and assist QQI in the performance of QQI's functions in so far as those functions relate to the functions of the provider,
- 2.establish procedures which are fair and consistent for the assessment of enrolled learners to ensure the standards of knowledge, skill or competence determined by QQI under section 49 (1) are acquired, and where appropriate, demonstrated, by enrolled learners,
- 3.continue to comply with section 65 of the 2012 Act in respect of arrangements for the protection of enrolled learners, if applicable, and
- 4.provide to QQI such information as QQI may from time to time require for the purposes of the performance of its functions, including information in respect of completion rates.

## Part 2 Conditions of Validation Established by QQI Under section 45(4)(b) of the 2012 Act

### Part 2.1 Condition of Validation Concerning a Change in the QQI Award or Award Standard

- 1.Where QQI changes an award title, an award specification or an award standard that a programme depends upon, the provider shall not enrol any further learners on the affected programmes unless informed otherwise in writing by QQI (e.g. by the issue of a revised certificate of validation). The programme is considered validated for learners already enrolled on the affected programme.

### Part 2.2 Condition of Validation Concerning the Duration of Enrolment

- 1.The duration of enrolment is the interval during which learners may be enrolled on the validated programme.

Validation is determined by QQI for a specified number of years of enrolment appropriate to the particular programme as indicated on the certificate on validation subject to unit 9.2.1. It is a condition of validation that the programme does not enrol any new learners outside this interval. A typical duration would be five years.

If a provider wishes to continue to enrol learners to the programme beyond this interval the provider must arrange in good time for it to be validated again by QQI, or exceptionally the provider may apply for extension of the duration of enrolment (unit (14)). In this context the provider may apply for validation of the programme from first principles or, alternatively, the provider may avail of the process for revalidation (unit (13)) by QQI.

### Part 2.3 General Condition of Validation

The provider of the programme shall:

- 1.Ensure that the programme as implemented does not differ in a material way from the programme as validated; differing in a material way is defined as differing in any aspect of the programme or its implementation that was material to QQI's validation criteria.
- 2.Ensure that the programme is provided with the appropriate staff and physical resources as validated.
- 3.Implement in respect of the programme its written quality assurance procedures (as approved by QQI).
- 4.Make no significant change to the programme without the prior approval of QQI. (See unit (8)).
- 5.Unless otherwise agreed by QQI in writing, start implementing the programme as validated and enrol learners within 18 months of validation.

6.Continue in respect of the validated programme to comply with section 56 of the 2012 Act in respect of procedures for access, transfer and progression.

7.Implement the programme and procedures for assessment of learners in accordance with the Approved Programme Schedule and notify QQI in writing of any amendments to this arising from changes to the programme; see unit (9).

8.When advertising and promoting the programme and awards, use the programme title as validated, and the correct QQI award title(s), award type(s) and award class(es) indicating the level of the award(s) on the National Framework of Qualifications.

9.Adhere to QQI regulations and procedures for certification.

10.Notify QQI in writing without delay of:

a. any material change to the programme;

a. anything that impacts on the integrity or reputation of the programme or the corresponding QQI awards;

b. anything that infringes the conditions of validation; or

c. anything that would be likely to cause QQI to consider reviewing the validation.

11.Notify QQI in writing to determine the implications for the provider's validated programmes, where the provider is likely to, or planning to, merge (amalgamate) with another entity or to acquire, or be acquired by, another entity (see unit (12.5)).

12.Report to QQI, when required or requested, on its implementation of the programme and compliance with the conditions of validation.

#### **Part 2.4 General Condition of Validation Arising from Specialised Validation Policy and Criteria**

1.

#### **Part 2.5 Special Conditions of Validation**

N/A

## 6 Proposed Programme Schedule

<b>Name of Provider:</b>		CCT College Dublin													
<b>Programme Title</b>		Master of Science in Applied Software Development													
<b>Award Title</b>		Master of Science in Applied Software Development													
<b>Stage Exit Award Title</b>		Post Graduate Diploma in Science Applied Software Development													
<b>Modes of Delivery (FT/PT):</b>		Full Time													
<b>Teaching and learning modalities</b>		Classroom instruction, supervised computer laboratories, independent learning, supervised individual and group project work													
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):	Stage NFQ Level <sup>2</sup>	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code							
Major	9	7	Award	9	7	90	February 2019	0613							
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 <sup>9</sup>	NFQ Level where specified	Credit Units	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 %	
1. Algorithms & Mathematical Methods		1	M	9	10	250	60	0	190	0	50	0	0	50	
2. Information Retrieval & Data Mining		1	M	9	10	250	60	0	190	0	50	0	0	50	

<sup>9</sup> Mandatory (m) or elective (E)

3. Research Methods and Professionalism	1	M	9	5	125	30	0	95	0	100	0	0	0
4. Software Design Methodologies	1	M	9	5	125	30	0	95	0	100	0	0	0
5. Cloud Services & Integration	2	M	9	10	250	60	0	190	0	50	0	0	50
6. Enterprise Software Development	2	M	9	10	250	60		190	0	100	0	0	0
7. Programming Paradigms	2	M	9	5	125	30	0	95	0	50	0	0	50
8. Systems Security	2	M	9	5	125	30	0	95	0	100	0	0	0
9. Applied Software Development Project	3	M	9	30	750	186	0	564	0	0	100	0	0
<b>Special Regulations</b> (Up to 280 characters)													

<b>Name of Provider:</b>		CCT College Dublin											
<b>Programme Title</b>		Master of Science in Applied Software Development											
<b>Award Title</b>		Master of Science in Applied Software Development											
<b>Stage Exit Award Title</b>		Post Graduate Diploma in Science Applied Software Development											
<b>Modes of Delivery (FT/PT):</b>		Part Time											
<b>Teaching and learning modalities</b>		Classroom instruction, supervised computer laboratories, independent learning, supervised individual and group project work											
<b>Award Class</b>	<b>Award NFQ level</b>	<b>Award EQF Level</b>	<b>Stage (1, 2, 3, 4, ..., or Award Stage):</b>	<b>Stage NFQ Level<sup>2</sup></b>	<b>Stage EQF Level</b>	<b>Stage Credit (ECTS)</b>	<b>Date Effective</b>	<b>ISCED Subject code</b>					
Major	9	7	Award	9	7	60	February 2019	0613					
<b>Module Title</b> (Up to 70 characters including spaces)		<b>Semester no where applicable. (Semester 1)</b>	<b>Module</b>	<b>Credit Number</b>	<b>Total Student Effort Module (hours)</b>		<b>Allocation Of Marks (from the module assessment strategy)</b>						



	or Semester2)	Status <sup>10</sup>	NFQ Level where specified	Credit Units	Total Hours	Class (or equity) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
1. Algorithms & Mathematical Methods	1	M	9	10	250	60	0	190	0	50	0	0	50
3. Research Methods and Professionalism	1	M	9	5	125	30	0	95	0	100	0	0	0
2. Information Retrieval & Data Mining	2	M	9	10	250	60	0	190	0	50	0	0	50
4. Software Design Methodologies	2	M	9	5	125	30	0	95	0	100	0	0	0
5. Cloud Services & Integration	3	M	9	10	250	60	0	190	0	50	0	0	50
7. Programming Paradigms	3	M	9	5	125	30	0	95	0	50	0	0	50
6. Enterprise Software Development	4	M	9	10	250	60		190	0	100	0	0	0
8. Systems Security	4	M	9	5	125	30	0	95	0	100	0	0	0
9. Applied Software Development Project	5	M	9	30	750	186	0	564	0	0	100	0	0
<b>Special Regulations (Up to 280 characters)</b>													

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<sup>10</sup> Mandatory (m) or elective (E)

### 6.1.1 Programme Schedules (Post Graduate Diploma in Science in Applied Software Development)

The programme schedules displayed below are the same as the proposed schedules for the MSc in Applied Software Development programme, minus the capstone module – Applied Software Development Project.

<b>Name of Provider:</b>		CCT College Dublin										
<b>Programme Title</b>		Post Graduate Diploma in Science in Applied Software Development										
<b>Award Title</b>		Post Graduate Diploma in Science in Applied Software Development										
<b>Stage Exit Award Title</b>		None										
<b>Modes of Delivery (FT/PT):</b>		Full Time										
<b>Teaching and learning modalities</b>		Classroom instruction, supervised computer laboratories, independent learning, supervised individual and group project work										
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):	Stage NFQ Level <sup>2</sup>	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code				
Major	9	7	Award	9	7	60	February 2019	0613				
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 <sup>11</sup>	NFQ Level where specified	Credit Units	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 %

<sup>11</sup> Mandatory (m) or elective (E)

1. Algorithms & Mathematical Methods	1	M	9	10	250	60	0	190	0	50	0	0	50
2. Information Retrieval & Data Mining	1	M	9	10	250	60	0	190	0	50	0	0	50
3. Research Methods and Professionalism	1	M	9	5	125	30	0	95	0	100	0	0	0
4. Software Design Methodologies	1	M	9	5	125	30	0	95	0	50	0	0	50
5. Cloud Services & Integration	2	M	9	10	250	60	0	190	0	50		0	50
6. Enterprise Software Development	2	M	9	10	250	60		190	0	100	0	0	0
7. Programming Paradigms	2	M	9	5	125	30	0	95	0	50	0	0	50
8. Systems Security	2	M	9	5	125	30	0	95	0	50	0	0	50
<b>Special Regulations</b> (Up to 280 characters)													

<b>Name of Provider:</b>		CCT College Dublin											
<b>Programme Title</b>		Post Graduate Diploma in Science in Applied Software Development											
<b>Award Title</b>		Post Graduate Diploma in Science in Applied Software Development											
<b>Stage Exit Award Title</b>		None											
<b>Modes of Delivery (FT/PT):</b>		Part Time											
<b>Teaching and learning modalities</b>		Classroom instruction, supervised computer laboratories, independent learning, supervised individual and group project work											
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):	Stage NFQ Level <sup>2</sup>	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code					
Major	9	7	Award	9	7	60	February 2019	0613					
Module Title (Up to 70 characters including spaces)		Semester no where applicable. (Semester 1)	Module	Credit Number	Total Student Effort Module (hours)		Allocation Of Marks (from the module assessment strategy)						

	or Semester2)	Status <sup>12</sup>	NFQ Level where specified	Credit Units	Total Hours	Class (or equity) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
1. Algorithms & Mathematical Methods	1	M	9	10	250	60	0	190	0	50	0	0	50
3. Research Methods and Professionalism	1	M	9	5	125	30	0	95	0	100	0	0	0
2. Information Retrieval & Data Mining	2	M	9	10	250	60	0	190	0	50	0	0	50
4. Software Design Methodologies	2	M	9	5	125	30	0	95	0	50	0	0	50
5. Cloud Services & Integration	3	M	9	10	250	60	0	190	0	50	0	0	50
7. Programming Paradigms	3	M	9	5	125	30	0	95	0	50	0	0	50
6. Enterprise Software Development	4	M	9	10	250	60		190	0	100	0	0	0
8. Systems Security	4	M	9	5	125	30	0	95	0	50	0	0	50
<b>Special Regulations</b> (Up to 280 characters)													

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<sup>12</sup> Mandatory (m) or elective (E)