CERTIFICATE OF VALIDATION

QQI
Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

New Validation

Provider Name	CCT College Dublin
Date of Validation	08-Apr-20

	Code	Title	Award	Duration (Full Time)	Duration (Part Time)	Exit
Principal Programme	PG24244	Bachelor of Science (Honours) in Computing and Information Technology	Bachelor of Science (Honours) (Major Award at NFQ Level 8) 8M20932 240 credits	4 years	4 years	
Embedded Programmes	PG24245	Bachelor of Science in Computing and Information Technology	Bachelor of Science (Major Award at NFQ Level 7) 7M20934 180 Credits	3 years	3 years	Yes
	PG24246	Higher Certificate in Science in Computing and Information Technology	Higher Certificate in Science (Major Award at NFQ Level 6) 6M20936 120 Credits	2 years	2 years	Yes

	First intake	Last intake
Enrolment Interval	Sep-20	Aug-25

	Full Time	Part Time
Maximum Intakes per annum:	2	2
Minimum Learners per Intake:	32	20
Maximum Learners per Intake:	180	60

Principal Programme

Target Learner groups

The proposed profile of the target learners include: domestic, European and International learners. Within this group there is a mix of school leavers and mature learners. Any learner suitably qualified to gain access to the proposed programme, can apply for access. Typically, targeted learners for this programme will mainly be representative of the following broad categories:
a) CAO applicants
b) Graduates of full QQI level 5 awards. Applicants must have achieved a pass mark in a Mathematics module in their QQI award, or have achieved a pass mark in Mathematics at Leaving Certificate level.
c) Suitably experienced ICT professionals, subject to meeting stringent Recognition of Experiential Prior Learning policy requirements
d) International students, EU and Non-EU, who meet access criteria as determined by a comparison using A World of Access by Douglas & Lennon (2011) and meeting stringent RPL and REPL policy requirements.
A more detailed analysis on access and admissions arrangements and entry requirements for this programme, is outlined in section 4 of this document.

Brief Synopsis of the programmes

This programme has been designed to produce graduates with the attributes required of computing and IT graduates 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 220 credits of taught module work and 20 credits of an applied development project. Learners who decide to leave the programme after completing the taught elements of one or more stages, may be entitled to receive the embedded exit award of a BSc in Computing and IT (stage 3 – level 7 NFQ) or a Higher Certificate in Computing and IT (stage 2 – level 6 NFQ). Graduates will be qualified to assume industry roles and/or to further their education at level 9.

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

Ireland

Physical resource requirements

Standard computing resources required to deliver level 8 programmes in computing. Classrooms, IT Laboratory setup, (including relevant hardware and software), student support resources including library, study and meeting facilities, etc.

Staff Profiles

Qualifications and Experience		WTE
Academic and Professional	MSc desired. However, NFQ Level 8 in Computer Science, Software Development, Software Engineering or equivalent is acceptable in cases where significant ndustrial experience is evident. Industry experience will be essential for those who do not have a postgraduate award. Pedagogical: Teaching experience is desired. Completion of a postgraduate CPD/Certificate in Teaching and Learning or similar preferred. (All new Lecturing staff are required to complete the CCT certificate in Teaching and Learning)	2
	MSc or PhD in Computing with experience managing level 8 or 9 computing programmes including project/dissertation modules.	1

Approved Centres

Centre	Minimum per intake per Centre	Maximum per intake per Centre
CCT Campus, West Moreland St	20	180

Learner Teacher Ratios

Learning Activity	Ratio
Supervised Project	1:4
Lectures / Demonstrations	1:100
Laboratory work / Tutorials / Workshops	1:30

Programme being replaced by this programme

Prog Code	Programme Title	Validated	To Close
na	n/a		

Embedded Programme

Code	Title	Award	Duration (Full Time)	Duration (Part Time)	Exit?
PG24245	Bachelor of Science in Computing and Information Technology	Bachelor of Science 7M20934 180 credits	3 years	3 years	Yes

	Full Time	Part Time
Maximum Intakes per annum:	N/A	N/A
Minimum Learners per Intake:	N/A	N/A
Maximum Learners per Intake:	N/A	N/A

Target Learner groups

As per the Principal Programme

Brief Synopsis of the programmes

As per the Principal Programme

Delivery mode: full-time / part-time

As per the Principal Programme

Teaching and Learning Modes

As per the Principal Programme

Approved countries where enrolled learners will be based

As per the Principal Programme

Physical resource requirements

As per the Principal Programme

Staff Profiles

Qualifications and Experience	WTE
As per the Principal Programme	

Approved Centres

Centre	Minimum per intake per Centre	Maximum per intake per Centre
As per the Principal Programme		

Learner Teacher Ratios

Learning Activity	Ratio
As per the Principal Programme	

Programme being replaced by this programme

Prog Code	Programme Title	Validated	To Close
na	n/a		

Embedded Programme

Code	Title	Award	Duration (Full Time)	Duration (Part Time)	Exit?
PG24246	Higher Certificate in Science in Computing and Information Technology	Higher Certificate in Science 6M20936 120 credits	2 years	2 years	Yes

	Full Time	Part Time
Maximum Intakes per annum:	N/A	N/A
Minimum Learners per Intake:	N/A	N/A
Maximum Learners per Intake:	N/A	N/A

Target Learner groups

As per the Principal Programme

Brief Synopsis of the programmes

As per the Principal Programme

Delivery mode: full-time / part-time

As per the Principal Programme

Teaching and Learning Modes

As per the Principal Programme

Approved countries where enrolled learners will be based

As per the Principal Programme

Physical resource requirements

As per the Principal Programme

Staff Profiles

Qualifications and Experience	WTE
As per the Principal Programme	

Approved Centres

Centre	Minimum per intake per Centre	Maximum per intake per Centre
As per the Principal Programme		

Learner Teacher Ratios

Learning Activity	Ratio
As per the Principal Programme	

Programme being replaced by this programme

Prog Code	Programme Title	Validated	To Close
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. N/A

Part 2.5 Special Conditions of Validation

1. N/A

Approved Programme Schedules

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	N/A
Modes of Delivery (FT/PT):	Full Time
Teaching and learning modalities	Classroom instruction, supervised computer laboratories, independent learning, group work

Award Class	**Award NFQ level**	**Award EQF Level**	**Stage** (1, 2, 3, 4, …, or Award Stage)**:**	**Stage NFQ Level**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Stage 1			120	Sep. 2020	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**			
		Status[6]	**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 %**
Programming – Object Oriented Approach	1 & 2	M	6	10	250	60	0	190	0	100	0	0	0
Introduction to H.C.I. (Human Computer Interaction)	1	M	6	10	250	60	0	190	0	100	0	0	0
Networking Technologies	1 & 2	M	6	10	250	60	0	190	0	60	0	0	40
Computing Architecture	1	M	6	5	125	30	0	95	0	100	0	0	0
Time and Task Management	1	M	6	5	125	30	0	95	0	100	0	0	0
Discrete Mathematics for Computing	2	M	6	5	125	30	0	95	0	50	0	0	50

[6] Mandatory (m) or elective (E)

Operating Systems	2	M	6	5	125	30	0	95	0	100	0	0	0
Project Skills	2	M	6	5	125	30	0	95	0	100	0	0	0
Client-side Programming	2	M	6	5	125	30	0	95	0	100	0	0	0
Special Regulations (Up to 280 characters)													

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	Higher Certificate in Computing and Information Technology
Modes of Delivery (FT/PT):	Full Time
Teaching and learning modalities	Classroom instruction, supervised computer laboratories, independent learning, group work

Award Class	**Award NFQ level**	**Award EQF Level**	**Stage** (1, 2, 3, 4, …, or Award Stage)**:**	**Stage NFQ Level**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Stage 2			120	Sep. 2020	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**			
		Status [7]	**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 %**
Object Oriented Constructs	3	M	6	5	125	30	0	95	0	100	0	0	0
Linear Algebra	3	M	6	5	125	30	0	95	0	50	0	0	50
Wireless Networking	3	M	6	5	125	30	0	95	0	100	0	0	0
Cloud Computing Fundamentals	3	M	6	5	125	30	0	95	0	50	0	0	50
Databases: Approaches and Systems	3 & 4	M	6	10	250	60	0	190	0	50	0	0	50
Server-side Programming	3	M	6	5	125	30	0	95	0	100	0	0	0
Research Skills	4	M	6	5	125	30	0	95	0	100	0	0	0
Networking Services & Virtualization	4	M	6	5	125	30	0	95	0	100	0	0	0
Cross Platform Development	4	M	6	5	125	30	0	95	0	100	0	0	0
Business Information Systems	4	M	6	5	125	30	0	95	0	100	0	0	0
Integrated Application Development	4	M	6	5	125	30	0	95	0	100	0	0	0

[7] Mandatory (m) or elective (E)

(LCM1)													
Special Regulations (Up to 280 characters)													

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	Bachelor of Science in Computing and Information Technology
Modes of Delivery (FT/PT):	Full Time
Teaching and learning modalities	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**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Stage 3			180	Sep. 2020	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**			
		Status [8]	**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 %**
Algorithms, Architectures and Design Patterns	5	M	7	5	125	25	0	100	0	100	0	0	0
Advanced Numerical Methods	5	M	7	5	125	25	0	100	0	50	0	0	50
Switching and Routing	5	M	7	5	125	25	0	100	0	100	0	0	0
Distributed Digital Transactions	5	M	7	5	125	25	0	100	0	100	0	0	0
Legal, Ethical and Privacy Issues	5	M	7	5	125	25	0	100	0	50	0	0	50
Object Oriented Analysis and Design	5	M	7	5	125	25	0	100	0	100	0	0	0
Concurrent Systems	6	M	7	5	125	25	0	100	0	100	0	0	0
Data Storage Solutions	6	M	7	5	125	25	0	100	0	60	0	0	40
Networks and Systems Security	6	M	7	10	250	50	0	200	0	100	0	0	0

[8] Mandatory (m) or elective (E)

Commercial Solutions Design (LCM2)	6	M	7	10	250	50	0	200	0	100	0	0	0
Special Regulations (Up to 280 characters)													

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	N/A
Modes of Delivery (FT/PT):	Full Time
Teaching and learning modalities	Classroom instruction, supervised computer laboratories, independent learning, supervised individual and group project work, peer assessment and research based learning

Award Class	**Award NFQ level**	**Award EQF Level**	**Stage** (1, 2, 3, 4, …, or Award Stage)**:**	**Stage NFQ Level**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Award Stage	8	7	240	Sep. 2020	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**			
		Status [9]	**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 %**
Artificial Intelligence	7	M	8	5	125	20	0	105	0	100	0	0	0
Data Visualisation and Communication	7	M	8	5	125	20	0	105	0	100	0	0	0
Data Exploration and Preparation	7	M	8	10	250	40	0	210	0	60	0	0	40
Cloud Services	7	M	8	5	125	20	0	105	0	100	0	0	0
Professional Development	7	M	8	5	125	20	0	105	0	100	0	0	0
Machine Learning for Artificial Intelligence	8	M	8	5	125	20	0	105	0	100	0	0	0
Strategic Business Information Technology	8	M	8	5	125	20	0	105	0	50	0	0	50
Problem Solving for Industry (LCM3)	8	M	8	20	500	80	0	420	0	0	100	0	0

[9] Mandatory (m) or elective (E)

Special Regulations (Up to 280 characters)

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	N/A
Modes of Delivery (FT/PT):	Part Time
Teaching and learning modalities	Classroom instruction, supervised computer laboratories, independent learning, group work

Award Class	**Award NFQ level**	**Award EQF Level**	**Stage** (1, 2, 3, 4, …, or Award Stage)**:**	**Stage NFQ Level**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Stage 1			120	Sep. 2020	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**			
		Status[10]	**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 %**
Programming – Object Oriented Approach	1 & 2	M	6	10	250	60	0	190	0	100	0	0	0
Introduction to H.C.I. (Human Computer Interaction)	1	M	6	10	250	60	0	190	0	100	0	0	0
Networking Technologies	1 & 2	M	6	10	250	60	0	190	0	60	0	0	40
Computing Architecture	2	M	6	5	125	30	0	95	0	100	0	0	0

[10] Mandatory (m) or elective (E)

Time and Task Management	2	M	6	5	125	30	0	95	0	100	0	0	0
Discrete Mathematics for Computing	3	M	6	5	125	30	0	95	0	50	0	0	50
Operating Systems	3	M	6	5	125	30	0	95	0	100	0	0	0
Project Skills	3	M	6	5	125	30	0	95	0	100	0	0	0
Client-side Programming	3	M	6	5	125	30	0	95	0	100	0	0	0
Special Regulations (Up to 280 characters)													

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	Higher Certificate in Computing and Information Technology
Modes of Delivery (FT/PT):	Part Time
Teaching and learning modalities	Classroom instruction, supervised computer laboratories, independent learning, group work

Award Class	**Award NFQ level**	**Award EQF Level**	**Stage** (1, 2, 3, 4, …, or Award Stage)**:**	**Stage NFQ Level**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Stage 2			120	Sep. 2020	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**			
		Status[11]	**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 %**
Object Oriented Constructs	4	M	6	5	125	30	0	95	0	100	0	0	0
Linear Algebra	4	M	6	5	125	30	0	95	0	50	0	0	50
Wireless Networking	4	M	6	5	125	30	0	95	0	100	0	0	0
Cloud Computing Fundamentals	4	M	6	5	125	30	0	95	0	50	0	0	50
Databases: Approaches and Systems	5	M	6	10	250	60	0	190	0	50	0	0	50
Server-side Programming	5	M	6	5	125	30	0	95	0	100	0	0	0
Research Skills	5	M	6	5	125	30	0	95	0	100	0	0	0
Networking Services & Virtualization	6	M	6	5	125	30	0	95	0	100	0	0	0
Cross Platform Development	6	M	6	5	125	30	0	95	0	100	0	0	0
Business Information Systems	6	M	6	5	125	30	0	95	0	100	0	0	0
Integrated Application Development	6	M	6	5	125	30	0	95	0	100	0	0	0

[11] Mandatory (m) or elective (E)

(LCM1)													
Special Regulations (Up to 280 characters)													

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	Bachelor of Science in Computing and Information Technology
Modes of Delivery (FT/PT):	Part Time
Teaching and learning modalities	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**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Stage 3	7	7	180	Sep. 2020	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**			
		Status[12]	**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 %**
Algorithms, Architectures & Design Patterns	7	M	7	5	125	25	0	100	0	100	0	0	0
Advanced Numerical Methods	7	M	7	5	125	25	0	100	0	50	0	0	50
Switching and Routing	7	M	7	5	125	25	0	100	0	100	0	0	0
Distributed Digital Transactions	7	M	7	5	125	25	0	100	0	100	0	0	0
Legal, Ethical and Privacy Issues	8	M	7	5	125	25	0	100	0	50	0	0	50
Object Oriented Analysis and Design	8	M	7	5	125	25	0	100	0	100	0	0	0
Concurrent Systems	8	M	7	5	125	25	0	100	0	100	0	0	0
Data Storage Solutions	8	M	7	5	125	25	0	100	0	60	0	0	40
Networks and Systems Security	9	M	7	10	250	50	0	200	0	100	0	0	0

[12] Mandatory (m) or elective (E)

Commercial Solutions Design (LCM2)	9	M	7	10	250	50	0	200	0	100	0	0	0
Special Regulations (Up to 280 characters)													

Name of Provider:	CCT College Dublin
Programme Title	Bachelor of Science Honours in Computing and Information Technology
Award Title	Bachelor of Science Honours
Stage Exit Award Title	N/A
Modes of Delivery (FT/PT):	Part Time
Teaching and learning modalities	Classroom instruction, supervised computer laboratories, independent learning, supervised individual and group project work, peer assessment, research based learning

Award Class	**Award NFQ level**	**Award EQF Level**	**Stage** (1, 2, 3, 4, …, or Award Stage)**:**	**Stage NFQ Level**[2]	**Stage EQF Level**	**Stage Credit (ECTS)**	**Date Effective**	**ISCED Subject code**
Major	8	7	Award Stage	8	7	240	Sep. 2020	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**			
		Status [13]	**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 %**
Artificial Intelligence	10	M	8	5	125	20	0	105	0	100	0	0	0
Data Visualisation and Communication	10	M	8	5	125	20	0	105	0	100	0	0	0
Data Exploration and Preparation	10	M	8	10	250	40	0	210	0	60	0	0	40
Cloud Services	11	M	8	5	125	20	0	105	0	100	0	0	0
Professional Development	11	M	8	5	125	20	0	105	0	100	0	0	0
Machine Learning for Artificial Intelligence	11	M	8	5	125	20	0	105	0	100	0	0	0

[13] Mandatory (m) or elective (E)

Strategic Business Information Technology	11	M	8	5	125	20	0	105	0	50	0	0	50
Problem Solving for Industry (LCM3)	12	M	8	20	500	80	0	420	0	0	100	0	0
Special Regulations (Up to 280 characters)													