# CERTIFICATE OF VALIDATION

**Extension #1**

| Provider Name | CCT College Dublin |
|---|---|
| Date of Validation | 10-Sep-20 |

| | Code | Title | Award | Duration (Full Time) | Duration (Part Time) | Exit |
|---|---|---|---|---|---|---|
| **Principal Programme** | PG24350 | Higher Diploma in Science in Artificial Intelligence Concepts and Applications | Higher Diploma in Science (Major Award at NFQ Level 8) 8M20990 60 credits | 2 semesters | 3 semesters | |
| **Embedded Programmes** | N/A | | | | | |

| | First intake | Last intake |
|---|---|---|
| **Enrolment Interval** | Sep-20 | Aug-26 |

| | Full Time | Part Time |
|---|---|---|
| **Maximum Intakes per annum:** | 2 | 2 |
| **Minimum Learners per Intake:** | 8 | 8 |
| **Maximum Learners per Intake:** | 60 | 40 |

# Principal Programme

**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 discipline specific expertise to level 8 (or level 7 with experience), including mathematical proficiency, to a minimum of NFQ level 7 or equivalent. This programme is designed to include learners in a related industry and those seeking employment within this field. It is also for those aspiring to progress their academic experience to a Level 8 NFQ award, specifically in the area of Artificial Intelligence. The programme is aimed at those learners who have already attained a Level 7 or 8 NFQ major award in a cognate discipline and are seeking to fine tune their knowledge of their chosen field with a specialist themed course of study.

**Brief Synopsis of the programmes**

The Higher Diploma in science in Artificial Intelligence Applications (60 ECTS) is designed for domestic and international learners seeking to develop their knowledge, skills and competence in the area of Artificial Intelligence. This targeted programme is designed to produce graduates with the attributes required of an A.I. 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 supported by on campus and online interactive learning. Graduates will be qualified to assume entry level industry roles and/or to further advance their education.

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

Full time & Part time including blended learning

**Teaching and Learning Modes**

Lecture, Webinar, lab (physical and virtual), tutorial, workshop, group work.

**Approved countries**

Ireland

**Physical resource requirements**

Standard computing resources required to deliver level 7 & 8 programmes in computing, face to face and in a VLE. Classrooms, IT Laboratories, (including relevant hardware and software), VLE and associated virtual classroom software, student support resources including library, study and meeting facilities, etc.

These are all currently available in CCT. The College has determined that, considering its current enrolment, it has the capacity to deal with the additional numbers outlined above. It is on this basis that it specified the maximum number of learners it will accept. The College commits to providing additional resources should a need arise during the period of validation.

**Staff Profiles**

| Qualifications and Experience | | WTE |
|---|---|---|
| Pedagogical: | Teaching experience is desired including experience of blended learning programmes. Completion of postgraduate CPD/Certificate in Teaching and Learning or similar preferred. Where experience in blended learning is not present, training and support will be provided. | 2 |
| Software Dev and Assoc Experience: | A minimum of 1 year experience required, 3 years of experience preferred. | 2 |
| Academic and Professional: | MSc required. However NFQ Level 8 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 |

**Approved Centres**

| Centre | Minimum per intake per Centre | Maximum per intake per Centre | |
|---|---|---|---|
| CCT Campus | 8 | 100 | |

**Learner Teacher Ratios**

| Learning Activity | Ratio |
|---|---|
| Lectures / Demonstrations /webinars | 1:50 |
| Laboratory work / Tutorials (inc. online)/ Workshops | 1:25 |

**Programme being replaced by this programme**

| Prog Code | Programme Title | Validated | To Close |
|---|---|---|---|
| | 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**

**Part 2.5 Special Conditions of Validation**

# Programme Schedules

| Name of Provider: | CCT College Dublin |
|---|---|
| Programme Title | Higher Diploma in Science in Artificial Intelligence Concepts and Applications |
| Award Title | Higher Diploma in Science in Artificial Intelligence Concepts and Applications |
| Stage Exit Award Title | None |
| 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 | 6 | Award | 8 | 6 | 60 | September 2020 | 0613 |

| Module Title | Semester | Module | | Credit Number | Total Student Effort Module (hours) | | | | | | Allocation of Marks (from the module assessment strategy) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Status[6] | NFQ Level where specified | Credit Units / ECTS Credits | 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. Strategic Thinking | 1 & 2 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 0 | 100 | 0 | 0 |
| 2. Artificial Intelligence Concepts to Implementation | 1 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |

| 3. Programming for Artificial Intelligence | 1 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4. Machine Learning | 1 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| 5. Data Visualisation Techniques | 2 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| 6. Storage Solutions for Big Data | 2 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| Special Regulations (Up to 280 characters) | | | | | | | | | | | | | |
| Mandatory (m) or elective (E) | | | | | | | | | | | | | |

| Name of Provider: | CCT College Dublin |
|---|---|
| Programme Title | Higher Diploma in Science in Artificial Intelligence Concepts and Applications |
| Award Title | Higher Diploma in Science in Artificial Intelligence Concepts and Applications |
| Stage Exit Award Title | None |
| 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 | 6 | Award | 8 | 6 | 60 | September 2020 | 0610 |

| Module Title | | Semester | Module | | Credit Number | Total Student Effort Module (hours) | | | | | Allocation of Marks (from the module assessment strategy) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NFQ Level | Credit Units | To tal | Cl as | Di re | Ho ur s | W or k | C.A. | Su pe | Pr oc | Pr oc |

| | | Status[7] | where specified | ECTS Credits | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Strategic Thinking | 1, 2 & 3 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 0 | 100 | 0 | 0 |
| 2. Artificial Intelligence Concepts to Implementation | 1 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| 3. Programming for Artificial Intelligence | 1 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| 4. Machine Learning | 2 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| 5. Data Visualisation Techniques | 2 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| 6. Storage Solutions for Big Data | 3 | M | 8 | 10 | 250 | 30 | 30 | 190 | 0 | 100 | 0 | 0 | 0 |
| Special Regulations (Up to 280 characters) | | | | | | | | | | | | | |
| Mandatory (m) or elective (E) | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |