



Institute of
Analytics

The Global Body for Analytics

Accreditation Criteria

IoA Accredited | Data Science & Analytics
Endorsed Courses

www.ioaglobal.org

INTRODUCTION

The rapid development of the field of Data Science & Analytics and the demand for these skills in the jobs market have created a need for recognition of professional training.

The Institute of Analytics (IoA) considers it appropriate to develop core training requirements for those seeking employment in the Data Science & Analytics field. Programmes which meet those requirements will be eligible to apply for endorsed accreditation status with the IoA. Satisfactory completion of an IoA Endorsed Course may meet the educational requirements for fast-track progression from IoA Affiliate membership, to IoA Associate membership, a status of recognition as a professional data analyst. (This will be determined on a case-by-case basis according to the depth and breadth of technical skills acquired during the Endorsed programme. Other conditions apply).

The criteria are intended to respect the independence and diversity of the field of Data Science & Analytics, while ensuring that employers can assume certain quality standards among students graduating from an accredited course of study. It is hoped that the opportunity to acquire IoA Endorsed Course status will encourage staff and course providers to monitor, develop and enhance their performance in ways that lead to a global body of quality training.

Accreditation is valid for 3 years. To ensure students benefit from accreditation, the education provider commits to promoting IoA student membership with their cohorts. Membership provides access to our vast learning resources in the IoA Learning Hub and other activities to support employability and career progression on graduation.

Applying for accreditation is free. On approval, accredited training providers will need to make an annual payment covering a minimum of 25 student memberships per course. Please see our website for current rates. We can also offer competitive prices for large volumes, please email us to discuss your individual needs hello@ioaglobal.org.

IoA requires a minimum of 25 student membership registrations for each accredited course annually.

INTRODUCTION	2
PART 1 - REQUIREMENTS FOR IoA ENDORSED COURSE STATUS 4	4
2 Admission Process	4
3 Staff	5
4 Course Rationale and Design	5
PART 2 - COURSE CONTENT	6
5 The Four Core Skills	6
5.1 Core Skill 1 Data collection and database maintenance	6
5.2 Core Skill 2 Data cleaning	6
5.3 Core Skill 3 Data modelling	6
5.4 Core Skill 4 Data Visualisation	6
6 Coding and software requirements	7
7 Methods	7
PART 3 - THE ACCREDITATION PROCESS	8
8 Application	8
9 Accreditation	8
10 Use of the IoA Logo	9
11 Accreditation not awarded	9
12 Sanctions and withdrawal of accreditation	10
PART 4 - RENEWAL OF COURSE ACCREDITATION	11

PART 1 - REQUIREMENTS FOR IoA ENDORSED COURSE STATUS

1.1 All students enrolled on IoA accredited courses are expected to become Student Members of the IoA.

1.2 Applications for accreditation for the IoA Endorsed Course track will be welcomed from training courses that require a minimum ISCED Level 3 Certificate (e.g., high school diploma) or local equivalent on entry to the course. The course should require not less than 15 hours' student contact time for the specified course content, with a substantial requirement for independent study.

1.3 An Endorsed Course must provide an appropriate mix of theoretical training in the field of Data Science & Analytics, and practical experience of applying data solutions.

1.4 On application, any information, course specifications, leaflets, brochures, advertisements, etc. supplied to the public must be made available to the IoA.

1.5 The course should be subject to course moderation processes. Moderators must be appropriately qualified and have experience assessing comparable courses.

1.6 There must be a clear written complaints procedure available to students, staff, and other training supporters. The course provider has ultimate responsibility for complaints and must have a clear written procedure for dealing with complaints.

1.7 Courses are subject to the IoA's Code of Ethics and Practice.

2. Admission Process

2.1 IoA requires a minimum of 25 student membership registrations for each accredited course annually.

2.2 Prospective students should be provided with detailed and accurate information about the course, including its structure, aims, staffing, content, assessment requirements, fees, and conditions of participation (e.g., time commitment or equipment requirements).

2.3 The procedure for selection should be clearly explained and be consistent with the course rationale, design, and methodology.

3. Staff

Course providers are accountable for the work of all staff.

3.1 Course staff shall monitor all trainers and supervisors.

3.2 Core Staff members are members of staff who have ultimate responsibility for the course and for the experience, well-being and advancement of students. Core Staff members are also directly involved in admission, course management, assessment and content oversight.

3.3 There must be at least two staff team members nominated as Core Staff for each iteration of the course (e.g., one cohort of an Introduction to Python course).

3.4 Core Staff will be provided membership of the IoA at Affiliate grade.

3.5 Core Staff must be familiar with and agree to work within the current version of the IoA's Code of Ethics and Practice. Copies of the Code of Ethics and Practice are available from IoA.

4. Course Rationale and Design

4.1 Courses should provide a clear statement of the rationale and design, including methods and practical exercises, which is consistent with the actual structure of the course and reflects the Core Accreditation Requirements listed in this document.

4.2 All courses should provide detailed study of one of the Core Skills listed in Section 5.

4.3 There should be a balance between theory and practice and between all elements of the course.

PART 2 - COURSE CONTENT

The IoA acknowledges that Data Science & Analytics is a field defined by multiple areas of interest and dynamic change. All accredited IoA Endorsed Courses must cover at least one of the 4 Core Skills listed below.

5. The Four Core Skills

The IoA recognises that the balance of focus for skills on independent courses will vary. For a course to qualify, it must have at least ONE of the following skills as the focus of study. Courses that cover more than one skill will also be recognised provided that the balance of those skills is the focus of the course.

5.1 Core Skill 1 Data collection and database maintenance

Database schema design and use

Data collection and provenance

Basic initial exploratory data analysis

Data sampling theory and application

5.2 Core Skill 2 Data cleaning

Theory of data cleaning, validation, data integrity (accuracy, consistency etc.) and ongoing quality assurance

Theory and practice of handling missing and duplicate data

Theory and practice of normalisation or the removal of outliers

5.3 Core Skill 3 Data modelling

Theory and practice of a range of models on large data sets

5.4 Core Skill 4 Data Visualisation

Theory of data visualisation and avoiding visual deception

Practice of data visualisation design for a non-technical audience

5.5 It is not anticipated that the Core Skills for IoA accreditation will change in the short term. However, given the rapid development of new technologies relevant to the field, and the large number of research technologies currently close to maturity, the IoA reserves the right to update the Core Skills as needed in response to emerging technologies and legislative environments. An 18-month period of notification and support will be given to all accredited suppliers in the unlikely event of a change, to allow course providers to adjust to the new requirements. Support can be agreed with the IoA on a case-by-case basis.

6. Coding and software requirements

The IoA is language and software agnostic and will accept any relevant software or programming tool for Data Science & Analytics, but course providers are required to submit details of the software and languages used for practical work during the application process.

7. Methods

Course staff are required to take responsibility for providing a range of learning experiences congruent with the topic of instruction. The course should include:

- (i) Theoretical instruction
- (ii) Practical application of technologies

PART 3 – THE ACCREDITATION PROCESS

Before applying for accreditation, course providers should familiarise themselves with the course accreditation procedures below.

8. Application

A course provider wishing to apply for IoA Endorsed Course Status should supply the following in the first instance:

- (i) A completed application form.
- (ii) Copies of any explanatory or promotional material such as course specification documentation to be used with the course to be accredited.

9. Accreditation

Accreditation is valid for 3 years. An education provider submits a completed application form electronically via our website and our team will review it against our criteria. The process is completed within 3 - 6 weeks. To ensure students benefit from accreditation, the education provider commits to promoting IoA student membership with their cohorts. Membership provides access to our vast learning resources in the IoA Learning Hub and other activities to support employability and career progression on graduation.

Applying for accreditation is free. On approval, accredited training providers will need to make an annual payment covering a minimum of 25 student memberships per course. Please see our website for current rates. We can also offer competitive prices for large volumes, please email us to discuss your individual needs hello@ioaglobal.org.

Accreditation by the IoA will last for 3 years, after which accreditation must be renewed following the process described in Part 4. Students currently studying on an IoA Endorsed course automatically qualify for Student membership of the IoA, if they are new to the IoA. Existing members may keep their current membership grade if they prefer. On successful completion of an IoA Endorsed course, they may be eligible to apply for our professional 'Associate' grade of membership, this will be determined on a case-by-case basis according to the depth, breadth and duration of the content of the course and agreed with the learning provider.

Please see the IoA Analyst Competency Framework for full details of the key competencies we expect members to acquire during their progression through the membership levels and for the criteria for relevant work experience.



If it has been agreed that the graduates of the Endorsed Course qualify for fast-track Associate membership, students of the course must have attended and successfully completed their IoA Endorsed Course during the specified period of accreditation.

In the instance that a course is awarded accreditation halfway through a student's pre-existing studies, they will be deemed to have completed an accredited course provided no amendments have been made to the course content since the start of the period of study. For information about accreditation withdrawal, please see Section 13.

We expect course providers to encourage their students to take up and use IoA membership to leverage the many benefits that membership of a professional overseeing body brings. The IoA offers welcome sessions and support for course providers in promoting the many resources in the membership platform to optimise their career success.

10. Use of the IoA Logo

Courses which have completed the accreditation process and have received confirmation of their accredited status may include the words 'IoA Endorsed Course' on their publicity material and may display the IoA Endorsed Course logo for that specific accredited course only after accreditation has been awarded and while accreditation is current. In the case of the intention to apply for IoA accredited status, a lapse of accreditation, or former existence of IoA accredited status, statements relating to accredited status may not appear in any publicity material around the course. Course accreditation status is non-transferable.

11. Accreditation not awarded

In the case of accreditation not being awarded, a member of our team will be in contact to advise which elements of the criteria are not being met and provide suggested enhancements.

12. Sanctions and withdrawal of accreditation

Failure to meet the criteria will result in the suspension or complete withdrawal of IoA accreditation. Accreditation of a course may be completely withdrawn or suspended by the IoA at any time if:

- (i) Course criteria are not met
- (ii) Standards are not maintained
- (iii) If a requirement for an annual minimum student membership registrations is not fulfilled

Any misleading or inaccurate information that is given to the IoA will result in a course being withdrawn from the course accreditation process.

In the event that accreditation is withdrawn from a course halfway through studies, existing student members on the course will be contacted by the IoA, and we will endeavor to find a mutually satisfactory resolution.

In addition, the IoA reserves the right to consider any unusual behaviour by those providing the course or any of its employers or agents, as a breach of the standard expected by the IoA. In the event that the Endorsed Course owner has an Approved Learning Partnership agreement with another learning provider, it will be the responsibility of the course owner, not the IoA, to discuss the withdrawal of accreditation.

PART 4 – RENEWAL OF COURSE ACCREDITATION

IoA accreditation is valid for 3 years, at which time, the course provider is required to seek its renewal. An IoA accredited course which is coming up for renewal, has two routes, depending on the circumstances:

- (i) If nothing has changed in the content, duration, delivery or name of the course, then a provider may seek to reaccredit by arranging a discussion with us to confirm that nothing in the course has changed, how many student memberships are required for the new period, if there are any minimum requirements to maintain the accreditation and to complete a renewal form.
- (ii) If there have been any changes to the course it will be necessary to arrange a discussion with our team to review how many student memberships are required for the new period. A new submission of the course will be required for review, which is usually completed within 3 - 6 weeks.



**Institute of
Analytics**

The Global Body for Analytics

The Future is Here.

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