Programme Specification

Data Science and Artificial Intelligence {Top-Up} [Frenchay]

Version: 2025-26, v1.0, Validated

Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Data Science and Artificial Intelligence {Top-Up} [Frenchay]

Highest award: BSc (Hons) Data Science and Artificial Intelligence

Interim award: BSc Data Science and Artificial Intelligence

Awarding institution: UWE Bristol

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: No

Credit recognition: No

School responsible for the programme: CATE School of Computing and Creative Technologies, College of Arts, Technology and Environment

Professional, statutory or regulatory bodies: Not applicable

Modes of delivery: Full-time

Entry requirements: For current entry requirements, see the UWE public website.

For implementation from: 01 September 2025

Programme code: INI400

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: This award is designed to enable flexible entry to students who have successfully completed prior studies at FHEQ Level 5 of a UK HND or equivalent

(e.g Higher Diploma or Associate Degree) in an area of Computing, Information Technology or Information Systems. The core modules provide theoretical as well as practical experience of Data Science and Artificial Intelligence that builds on this prior knowledge. This programme will enable students to acquire the relevant competences and knowledge necessary to contribute effectively to the deployment of data science and artificial intelligence solutions in changing technological, business, and social environments.

Features of the programme:

Educational Aims: The BSc (Hons) Data Science & Artificial Intelligence programme aims to:

Provide students with comprehensive knowledge and practical experience in data science and artificial intelligence, building upon prior computing or information technology studies.

Develop professionals capable of deploying effective data science and AI solutions across diverse technological, business, and social environments, with strong emphasis on ethical and responsible practice.

Foster technical competency in statistical inference, machine learning, and data analytics while developing critical awareness of professional, legal, and ethical implications.

Cultivate strong analytical, problem-solving, and communication skills essential for successful careers in data science and AI.

Prepare graduates to adapt to and lead in the rapidly evolving field of data science and artificial intelligence while maintaining high professional standards.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Programme Learning Outcomes

PO1. Apply fundamental principles and technical skills in areas such as statistical inference, machine learning, text and data analytics, to develop descriptive, predictive and prescriptive models and analyses.

PO2. Evaluate and select appropriate tools, platforms, and methodologies to design and deploy robust AI or data solutions, considering technical capabilities, limitations, and alignment with real-world contexts.

PO3. Apply systematic practices and industry standards to design, develop, test, and document robust data science and/or AI solutions.

PO4. Analyse, interpret, and visualise complex datasets using appropriate tools and techniques to uncover insights and effectively communicate findings to both technical and non-technical audiences.

PO5. Collaborate effectively, demonstrating strong interpersonal, communication, and leadership skills, to manage data science projects successfully from initiation to completion.

PO6. Critically evaluate ethical, professional, and societal implications of data science and AI applications and demonstrate commitment to responsible technology practices.

PO7. Engage in continuous learning and professional development to stay current with the rapidly evolving fields of data science and artificial intelligence.

Assessment strategy: The programme implements a comprehensive assessment strategy that aligns with learning outcomes and professional requirements:

A. Diverse Assessment Methods:

Technical implementations and practical demonstrations

Written reports and documentation

Project presentations and demonstrations

Individual and group assignments

Research-based assessments

B. Professional Practice Assessment:

Evaluation of technical competencies
Assessment of professional skills and communication
Project management capabilities
Ethical consideration and responsible practice

C. Progressive Development:

Regular formative feedback throughout modules
Balanced distribution of assessments across the academic year
Integration of theoretical knowledge with practical applications
Focus on both individual and collaborative achievements

D. Industry Alignment:

Assessment tasks reflecting real-world scenarios
Emphasis on production-ready solutions
Evaluation of professional documentation and communication
Integration of current industry practices and standards

E. Quality Assurance:

Clear assessment criteria and learning outcomes
Regular review and updating of assessment methods
External examiner oversight
Alignment with university assessment regulations

This assessment strategy ensures graduates demonstrate both technical proficiency and professional capabilities required for successful careers in data science and artificial intelligence.

Student support: Espresso Programming are regular drop-in sessions where students can work on individual problems with staff members. Students can also access study skills support provided by the UWE Library staff.

Part B: Programme Structure

Year 1

Year 1 Compulsory Modules

Module Code	Module Title	Credit
UFCEEV-30-3	Professional and Academic Skills 2025-26	30
UFCEKP-30-3	Data Science and AI Individual Project 2025-26	30

Year 1 Optional Modules

Module Code	Module Title	Credit
UFCE3P-30-3	Essentials and Applications of Artificial Intelligence 2025-26	30
UFCEPN-30-3	Data Visualisation and Communication in Practice 2025-26	30
UFCEKN-30-3	Advanced Machine Learning 2025-26	30
UFCE3R-30-3	Big Data Analytics 2025-26	30

Part C: Higher Education Achievement Record (HEAR) Synopsis

This programme provides graduates with the essential skills and technical knowledge needed in the industry to develop, implement, and manage data science and AI solutions across various business environments and application areas.

It trains technically proficient professionals who can systematically analyse problems, critically evaluate options, and deliver effective data science solutions in a dynamic business landscape.

Through a practical, hands-on approach, students gain expertise in data-informed decision-making while tackling contemporary challenges through ethical data science practices. The programme also promotes continuous professional development, highlighting the key knowledge, skills, and ethical standards that are vital for successful practice in data science.

Part D: External Reference Points and Benchmarks

The QAA Computing Subject Benchmark Statement

The latest QAA Subject Benchmark Statements for Computing in March 2022. While the programme does not fall squarely under the Computing benchmark statements, they each provide a reference point for this proposal. The design team has considered them in drawing up the structure of the programme, and is of the view that the programme closely adheres to their standards as regards curriculum, teaching and learning.
https://www.qaa.ac.uk/t...rk-statements/computing

In designing this programme we have also made reference to the SEEC credit level descriptors for HE, 2016, and the QAA FHEQ descriptors, 2024, to ensure that module and programme learning outcomes are expressed in a way that is appropriate to their level.
http://www.seec.org.uk/...EC-descriptors-2016.pdf
https://www.qaa.ac.uk/d...warding-bodies-2024.pdf

The UWE Enhancement Framework has helped to frame our thinking in terms of the context in which the students will learn, as has UWE 2030 strategy document.

Part E: Regulations

Approved to University Regulations and Procedures: Academic regulations and procedures - Academic information | UWE Bristol