University of Suffolk

DEFINITIVE COURSE RECORD

Course Title	**MSc Data Science and Artificial Intelligence**
Awarding Bodies	**University of Suffolk**
Level of Award[1]	**FHEQ Level 7**
Professional, Statutory and Regulatory Bodies Recognition	**None**
Credit Structure[2]	**180 Credits at level 7**
Mode of Attendance	**Full-time and part-time**
Standard Length of Course[3]	**1 year full-time**
Intended Award	**MSc Data Science and Artificial Intelligence**
Named Exit Awards	**PgD Data Science and Artificial Intelligence**
Entry Requirements[4]	**Standard Entry Requirements of undergraduate degree 2.2 Honours, any subject**
Delivering Institution	**University of Suffolk**

This definitive record sets out the essential features and characteristics of the MSc Data Science and Artificial Intelligence course. The information provided is accurate for students entering level 7 in the 2024-25 academic year[5].

Course Summary

The MSc Data Science and Artificial Intelligence is a postgraduate taught degree. It is also a conversion course which is designed for students who do not have a computing undergraduate degree but who want to become experts in the field of artificial intelligence and data science. The degree has six taught modules which cover introducing Artificial Intelligence (with an emphasis on ethics and how to undertake research), Python Programming (for data science and AI), databases (relational SQL and NoSQL), data mining and statistically-based approaches to AI, deep learning techniques and tools, and cloud computing, followed by a capstone Masters project. Graduates of this degree are likely to take up roles in industry and commerce as data scientists, but could also progress to undertake PhD degrees perhaps using data science and AI in combination with the domain of their original undergraduate subject.

[1] For an explanation of the levels of higher education study, see the QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014)
[2] All academic credit awarded as a result of study at the University adheres to the Higher education credit framework for England.
[3] Where the course is delivered both full-time and part-time, the standard length of course is provided for the full-time mode of attendance only. The length of the part-time course is variable and dependent upon the intensity of study. Further information about mode of study and maximum registration periods can be found in the Framework and Regulations for Taught Postgraduate Awards.
[4] Details of standard entry requirements can be found in the Admissions Policy and further details about Disclosure and Barring Checks (DBS) can be found on the University's DBS webpage.
[5] The University reserves the right to make changes to course content, structure, teaching and assessment as outlined in the Admissions Policy.

DEFINITIVE COURSE RECORD

Course Aims

- To enable students, regardless of their first degree subject, to gain essential computing knowledge and skills, enabling them to advance deeper into the AI and data science specialism;
- To enable students to gain a deep comprehensive knowledge and systematic understanding of the advanced specialism of AI and Data Science;
- To enable students to apply the theory in practice, designing and developing robust quality architectures and computational solutions;
- To enable students to derive meaningful insights from those solutions with a due appreciation for the uncertainties and unknowns associated with those insights;
- To ensure that students are fully aware of the ethical and privacy dimensions of AI and data science.

Course Learning Outcomes

The following statements define what students graduating from the MSc Data Science and Artificial Intelligence course will have been judged to have demonstrated in order to achieve the award. These statements, known as learning outcomes, have been formally approved as aligned with the generic qualification descriptor for level 7 awards as set out by the UK Quality Assurance Agency (QAA)[6].

On successful completion of this degree, graduates will be able to:

1. Evaluate the technical dimensions of AI and data science architectures, solutions and techniques.
2. Demonstrate deep knowledge and systematic understanding of Artificial Intelligence and Data Science theory, techniques, tools and applications as informed by research and practice at the forefront of the discipline.
3. Combine theory, research and practice at the forefront of the discipline and use it to guide robust and high quality practical programming and computational solutions and architectures.
4. Understand the ethical and privacy dimensions of Artificial Intelligence and Data Science.
5. Critically review literature, software and systems.
6. Possess system-level competencies in assessing, understanding, creating and improving AI and data science solutions and architectures.
7. Possess translational skills to communicate solutions and insights to technical and non-technical audiences.
8. Recognise and respond to opportunities for innovation.
9. Set goals and identify resources for lifelong learning.

Course Design

The design of this course has been guided by the following QAA Benchmarks:

- QAA Subject Benchmark in Computing (2022)
- QAA Subject Benchmark Statement for Computing (Masters) 2019

[6] As set out in the QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014)

DEFINITIVE COURSE RECORD

Course Structure

The MSc Data Science and Artificial Intelligence comprises modules at level 7.

Module Specifications for each of these modules is included within the course handbook, available to students on-line at the beginning of each academic year.

	Module	Credits	Module Type[7]
Level 7			
	Introduction to Artificial Intelligence	20	Requisite
	Python Programming for AI and Data Science	20	Requisite
	SQL and NoSQL Databases	20	Requisite
	Cloud Computing for AI and Data Science	20	Requisite
	Data Mining and Statistical AI	20	Requisite
	Deep Learning Techniques and Tools	20	Requisite
	Masters Project	60	Mandatory

Awards

On successful completion of the course, students will be awarded a MSc Data Science and Artificial Intelligence. Students who leave the course early may be eligible for a Postgraduate Diploma in Data Science and Artificial Intelligence on successful completion of 120 credits.

Course Delivery

The course is delivered at the DigiTech Centre at Adastral Park and on the Waterfront Campus subject to government health and safety regulation and guidance. Students studying full-time on MSc Data Science and Artificial Intelligence are likely to have approximately 250 tutor structured learning hours. Tutor structured learning will be a mix of 216 class hours of lectures, seminars and practical workshops and 34 hours of individual tutorials. Students will normally be expected to undertake 18 hours of independent study in an average week but should be prepared for this to vary based on assignment deadlines and class exercises.

Course Assessment

A variety of assessments will be used on the course to enable students to experience and adapt to different assessment styles. The assessment methods used will be appropriate to assess each module's intended learning outcomes. Assessment on the course overall will be 100]% coursework (including research essay, technical reports, programming portfolios, presentations, dissertations and research projects).

Special Features

Some scholarships are available for this degree for eligible students (overarching criteria set by the Office for Students). Students will have the opportunity to pursue industry certifications (such as AWS Certified Cloud Practitioner) as part of this degree.

[7] Modules are designated as either mandatory (M), requisite (R) or optional (O). For definitions, see the Framework and Regulations for Taught Postgraduate Awards

DEFINITIVE COURSE RECORD

Course Team

The academic staff delivering this course are drawn from a team that includes teaching specialists and current practitioners. All staff are qualified in their subjects with their own specialist knowledge to contribute.

Course Costs

Students undertaking MSc Data Science and Artificial Intelligence will be charged tuition fees as detailed below.

Student Group	Tuition Fees
Full-time UK	£9,090 per year
Part-time UK	£1010 per 20 credit module
Full-time EU/International	£14,625 per year
Part-time EU/International	£1,625 per 20 credit module

Payment of tuition fees is due at the time of enrolment and is managed in accordance with the Tuition Fee Policy.

Academic Framework and Regulations

This course is delivered according to the Framework and Regulations for Taught Postgraduate Awards and other academic policies and procedures of the University and published on the website.