

# Programme Specification 2025-26

1.	Programme title	MSc Information Systems and Data Management for Business
2.	Awarding institution	Middlesex University
3a	Teaching institution	Middlesex University London
3b	Language of study	English

4a Valid intake dates and mode of study

Mode of Study	Cohort	Delivery Location	Duration
Full-time (FT)	Semester 1	Hendon	1 Years
Full-time (FT)	Semester 1	Hendon	15 Months
Full-time (FT)	Semester 1	Hendon	24 Months
Part-time (PT)	Semester 1	Hendon	2 Years

4c Delivery method

On Campus/Blended Learning

#### 5. Professional/Statutory/Regulatory body (if applicable)

N/A

6. Apprenticeship Standard (if applicable) N/A

7. Final qualification(s) available Target Award Title(s) MSc Information Systems and Data Management for Business MSc MSc Information Systems and Data Management for Business with Professional Placement (24 months) MSc MSc Information Systems and Data Management for Business with Professional Placement (15 months) Exit Award Title(s) PGCert Information Systems and Data Management for Business PGDip Information Systems and Data Management for Business

8. Academic year effective from	2025-26
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#### 9. Criteria for admission to the programme

The principal criteria for admission are that entrants are capable of working at postgraduate level and are able to succeed at, and benefit from, the programme. The following would normally be considered appropriate entry qualifications:

At least a second-class Honours degree in a discipline related to the programme such as: •Relevant numerate subjects or

•Those providing a significant exposure to Information Systems (such as Business Information Systems, Information Sciences, Software Engineering, Computer Science, Computer Studies, Computing, Business Information Technology etc.)

•A relevant aspect of business (such as Business Studies, Business Administration, Economics, etc.)

Or

•An Honours Degree together with employment or professional experience in a field relevant to the programme and at an appropriate level in the field.

We normally require graduates with a 2:2 Honours degree, or equivalent qualification, in an appropriate subject. We also consider candidates with other relevant qualifications. Those without formal qualifications need to demonstrate a minimum of three years' relevant work experience and the ability to study at postgraduate level.

International students who have not been taught in the English medium and whose first degree is not from a UK university, must show evidence of proven ability in English such as IELTS score of 6.5 with a minimum score of 6 in each band. The University provides presessional English language courses throughout the year for candidates who do not meet the English requirements. University policies supporting students with disabilities apply, as described in the University Regulations. For further information, visit the learning resources web site at: http://unihub.mdx.ac.uk/support/index.aspx.

The University aims to ensure that its admissions processes are fair, open and transparent and aims to admit students who, regardless of their background, demonstrate potential to successfully complete their chosen programme of study where a suitable place exists and where entry criteria are met. The University values diversity and is committed to equality in education and students are selected on the basis of their individual merits, abilities and aptitudes. The University ensures that the operation of admissions processes and application of entry criteria are undertaken in compliance with the Equality Act. We take a personalised and fair approach to how we make offers. We feel it's important that our applicants continue to aspire to achieving great results and make offers which take into account pieces of information provided to us on the application form.

This includes recognition of prior learning and experience. If you have been working, or you have other learning experience that is relevant to your programme, then we can count this towards your entry requirements and even certain modules once you start studying.

#### 10. Aims of the programme

The programme aims to:

The programme aims to:

•Give students an understanding of theories and principles that are imported from different disciplines to underpin the development and management of Information Systems and use of data. These theories/principles include decision-making science, artificial intelligence and machine learning, legal and regulatory theory, ethics and professionalism, systems and organisational theory.

•Enable the students to recognise the centrality of Information Systems to business and to society at large through studying critically recent developments in Information Systems in Organisations.

•Equip students with relevant knowledge and skills necessary to analyse and understand business, organisational, social, technical and regulatory issues relevant to the evaluation and management of information systems.

•Develop an awareness of information systems development and enable students to make informed choices on specific information systems technologies, methods and tools, in context (organisational type, scope and complexity).

•Equip students with the technical skills necessary to develop and implement strategies for the introduction and management of information systems and knowledge/data management programmes.

•Enable students to further their personal and professional development in the field of information systems.

#### 11. Programme learning outcomes

#### **Programme - Knowledge and Understanding**

On completion of this programme the successful student will have a knowledge and understanding of:

- 1. The nature of Information Systems within the context of underpinning systems theory, organisational theory, and core business principles necessary to implement and evaluate Information Systems in a variety of organisations.
- **2.** Relevant business and management theories used in the development of suitable strategies for the management of Information Systems in various organisational contexts.
- **3.** Critical success factors of Information Systems and data management strategies in various organisational contexts and their challenges.
- **4.** The use and importance of emerging technologies (such as artificial intelligence) and digital data in business organisations.
- **5.** Knowledge/data management techniques to maintain a competitive advantage in knowledge/data driven economies.
- **6.** Legal, ethical and professional issues related to the use, management and governance of Information Systems and digital data used in business.

#### Programme - Skills

On completion of this programme the successful student will be able to:

**7.** Apply relevant tools and techniques to effectively use, manage and critically evaluate Information Systems and data in various organisational contexts.

- **8.** Analyse, apply and provide guidance on legal, ethical, and governance issues (including adopting strategies, tools, and best practices) for the responsible use and management of Information Systems and data in business.
- **9.** Perform effectively as a member of a team in complex and diverse working environments that may arise where members of a team are brought together from diverse backgrounds.
- **10.** Manage own learning and development, demonstrating time management, effective communication and organisational skills at a professional level.
- **11.** Deploy a wide range of resources, technologies, advanced techniques and solutions from one specialised field of learning to another and from one complex problem situation to another.
- **12.** Apply research methods and domain-specific knowledge to plan, manage and execute a significant research project, demonstrating originality, critical thinking, and effective problem-solving.

#### 12. Teaching/learning methods

Students gain knowledge, gain understanding and develop cognitive skills and abilities through resource-based learning, small group discussions, small group and individual exercises, lab sessions, demonstration software, key concept videos, interactive large group teaching events, online problem-solving sessions and the research project.

Throughout their studies students are encouraged to undertake independent study both to supplement and consolidate what is being learnt and to broaden their individual knowledge and understanding of the subject. Critical evaluation and reflection engage the students in applying theory to practice.

Approx. number of timetabled hours per week (at each level of study, as appropriate), including on-campus and online hours. FT 12 hours, PT 6 hours.

Approx. number of hours of independent study per week (at each level of study, as appropriate). FT 28 hours, PR 14 hours.

Approx. number of hours on placement (including placement, work-based learning or year abroad, as appropriate). FT 3 months (15 months programme) or minimum of 36 weeks (24 months programme).

#### 13. Employability

#### 13a Development of graduate competencies

#### 13b Employability development

Development of graduate competencies

Throughout the programme, students engage in a multidisciplinary curriculum that combines theoretical knowledge with practical applications, fostering competencies in areas related to information systems, data management and business. Modules provide opportunities for hands-on learning through real-world case studies, project-based assessments, and industry collaborations.

#### Key Graduate Competencies

#### Leadership and Influence

Competency: Graduates will proactively lead learning teams, research initiatives, and professional projects, influencing decision-making and policy development.
How Achieved: Leadership in group projects (e.g., in CST4331, CST4341) and engagement in research-led learning, and industry-based challenges in modules (e.g., in CST4990)

#### Entrepreneurship (Mindset)

Competency: Students will develop an entrepreneurial mindset, identifying and addressing complex challenges related to information systems and data management for business.
How Achieved: Real-world problem-solving, integrating insights from AI in modules such as CST4341 and CST4346

#### Curiosity and Learning

•Competency: Graduates will demonstrate intellectual curiosity by exploring challenges of information systems and data management and possible solutions, contributing original insights to the field.

•How Achieved: Independent research assignments, self-directed study opportunities, and participation in research initiatives within modules such as CST4990 and CST4331.

#### Communication, Empathy, and Inclusion

•Competency: Students will be able to articulate information systems and data management concepts to technical and non-technical stakeholders.

•How Achieved: Presentations, technical report writing, and teamwork-based assessments in modules such as CST4331 and CST4341.

#### Collaborative Innovation

•Competency: Graduates will lead and contribute effectively to Information systems research and problem-solving teams, ensuring knowledge exchange and critical evaluation.

•How Achieved: Group-based research projects and team-oriented coursework in modules such as CST4331 and CST4341.

#### Resilience and Adaptability

Competency: Graduates will demonstrate resilience in addressing challenges in information systems and data management, adapting to new regulatory frameworks and technological shifts.
How Achieved: Exposure to real-world case studies, adaptive problem-solving assignments, and industry-related projects in modules such as CST4321, CST4326 and CST4351.

#### Problem Solving and Delivery

•Competency: Students will solve real-world challenges through use of advance methodologies data-driven decision-making and knowledge/data management techniques.

•How Achieved: Application of AI, use of data analytics and techniques for knowledge discovery in modules such as CST4341, CST4346 and CST4351.

#### **Technological Agility**

Competency: Graduates will be proficient in the use of current information systems and data management tools, Al-driven analysis and emerging technologies for business
How Achieved: Hands-on training with information systems (in modules such as (CST4341 and CST4346) and exposure to regulatory challenges of emerging technologies used in digital

business (in modules such as CST4321 and CST4326).

Integrated Learning Approach

Practical learning through labs, workshops, and scenario-based assessments.
Research-informed teaching delivered by academics with industry experience.
Real-world engagement through guest sessions, industry talks, and applied projects.

This comprehensive development of competencies ensures graduates are career-ready, adaptable, and equipped to lead in the rapidly evolving field of information systems and data management for business.

#### Employability development

Employability is a core focus of the programme ensuring that graduates are well-prepared for careers in data science and related fields. The programme integrates technical expertise, industry engagement, and career development to equip students with the skills, knowledge, and experience needed to succeed in an evolving job market.

•Technical Proficiency and Practical Experience. Students will gain experience in various aspects of Information Systems and Data Management including use of big data technologies, assessing legal/ethical issue and applying various skills to real-world challenges. Through practical assignments and case studies students will develop their problem-solving abilities and critical thinking skills.

•Industry Engagement and Career Support. The programme actively connects students with industry through guest sessions with professionals, networking events, and industry-led projects. Employers and industry professionals will provide insights into current trends, challenges, and skills in demand, helping students align their learning with job market expectations. Support and embedded workshops on a range of career topics are available from the University's Employability Service.

•Communication and Collaboration Skills. Students will enhance their ability to communicate technical findings effectively through workshops, presentations, and group projects, developing the interpersonal skills necessary to work in cross-disciplinary teams.

•Legal, Ethical and Compliance Awareness and Social Responsibility. The modules on legal, ethical and compliance issues ensure that students develop an understanding of legal, ethical and compliance implications of technology and data use in business, preparing them to work responsibly in the field.

•Research, Independent Learning, and Lifelong Development. Students will undertake an independent research dissertation, allowing them to apply their technical and analytical skills to an industry-relevant or research-based project. The programme fosters adaptability and lifelong learning, ensuring that graduates remain agile in the rapidly evolving field of data science.

By integrating practical learning, industry engagement, and professional development, the programme ensures that graduates are equipped not only with the technical knowledge needed for roles in Information Systems and Data Management but also with the critical skills required to succeed in a dynamic and competitive job market.

#### 13c Placement and work experience opportunities (if applicable)

For MSc Information Systems and Data Management for Business with Professional Placement (15 months) and MSc Information Systems and Data Management for Business with Professional Placement (24 months) only

As well as the normal programme structure, a programme with a placement is available (via

application) for full-time students. Students can choose to apply for either a 3-month or extended placement duration (minimum 36 weeks). Students are responsible for securing their placement through independent applications, with support available from the university's employability service. Placements are expected to be in roles relevant to the programme, within commercial organisations, research institutions, or technology-driven companies

#### 13d Future careers / progression

Graduates of the programme will be positioned to enter a wide range of career paths, equipped with both the deep technical expertise and the practical, research-informed approach necessary to excel. These include:

Business Intelligence Analyst; Data and Information Analyst; ICT Project Manager; Business Consultant; ICT Consultant; Compliance Officer; Information Security and Compliance Analyst; Privacy Engineer; Data Privacy Compliance Officer; Data Protection Officer; Responsible AI Advisor; Responsible AI Monitoring and Compliance Specialist; AI Ethics Specialist; Cryptography Specialist; Crypto Transaction Monitoring Analyst; Investigative Analyst.

Over 20% of students pursue further postgraduate study or research.

#### 14. Assessment methods

Students' knowledge and understanding and practical skills are assessed through group and individual coursework, presentations and the final project report.

# **15. Programme Structure (level of study, modules, credits and progression requirements)**

Structure is indicative for Part-time routes.

Students must take all of the compulsory modules and choose following programme requirements from the optional modules.

Non-compensatable modules are noted below.

#### Available Pathways

Not Applicable

#### <u>Year 1</u>

#### Year 1 Level 7 FT and PT

Code	Туре	Module Title	Credits at FHEQ Level
CST4341	Compulsory	Data Management for Business Intelligence 2025-26	30 at Level 7

CST4321	Compulsory	Legal and Ethical Aspects of Emerging Technologies 2025- 26	15 at Level 7
CST4351	Compulsory	Information and Knowledge Discovery for Business 2025-26	15 at Level 7
CST4331	Compulsory	Strategic Information Systems and Project Management 2025- 26	30 at Level 7
CST4326	Compulsory	Digital Business and Data Compliance 2025-26	15 at Level 7
CST4346	Compulsory	AI and Machine Learning for Business 2025-26	15 at Level 7
CST4990	Compulsory	Research Methods and Postgraduate Project 2025-26	60 at Level 7
CST4930	Optional	Preparing for the Professional Placement 2025-26	0 at Level 7

## <u>Year 2</u>

## Year 2 Level 7 Hendon FT students with placement option

Code	Туре	Module Title	Credits at FHEQ Level
CST4940	Optional	Postgraduate Work Placement 2026-27	0 at Level 7
CST4950	Optional	Postgraduate Work Placement (extended) 2026-27	0 at Level 7

#### Year 2 Level 7 PT

Code	Туре	Module Title	Credits at FHEQ Level
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CST4321	Compulsory	Legal and Ethical Aspects of Emerging Technologies 2026- 27	15 at Level 7
CST4351	Compulsory	Information and Knowledge Discovery for Business 2026-27	15 at Level 7
CST4326	Compulsory	Digital Business and Data Compliance 2026-27	15 at Level 7
CST4346	Compulsory	AI and Machine Learning for Business 2026-27	15 at Level 7
CST4990	Compulsory	Research Methods and Postgraduate Project 2026-27	60 at Level 7

\*Please refer to your programme page on the website re availability of option modules

#### 16. Programme-specific support for learning

The Department of Computer Science Teaching and Learning approach aligns with the University's goals to promote learner autonomy and resource-based learning. To enhance the experience of students in the Information Systems and Data Management programme, the following provides support for learning.

Specialist Labs and Software: Students have access to state-of-the-art labs equipped with industry-standard software for database design, enterprise systems, and data analytics. These facilities are available for formal teaching sessions and independent study to support hands-on learning.

Induction and Initial Diagnostic Support: All new students participate in an induction programme, which may include diagnostic assessments in areas such as numeracy, data management fundamentals, and business systems literacy. The University offers personalised tutorials and workshops to support students needing additional assistance. Digital Access and Networked Resources: Students receive a personal email account, secure networked storage, and remote access to essential systems, including enterprise tools and cloud-based platforms used in information systems and data management. Programme and Module Handbooks: An electronic version of the programme handbook is available through the MyLearning platform. Module-specific handbooks and web-based learning resources focused on data integration, database management, and systems analysis are also provided.

Library and Academic Support: Extensive library resources, including books, journals, and digital repositories focused on information systems and data management, are available to students. Personalized advice and support are accessible through the student support services.

Small Group Tutorials and Feedback: Tutorials are conducted in small groups to provide additional support and encourage collaborative learning on key topics such as systems architecture, business intelligence, and data governance. Feedback is provided on all formative assessments to enhance skill development.

Research and Collaboration Opportunities: The department's research in areas such as enterprise systems, big data, AI, digital transformation and legal/ethical issues directly informs teaching. Students may have the opportunity to collaborate with academic staff on innovative research projects, gaining exposure to real-world applications of information systems.

Support for Students with Disabilities: Middlesex University is committed to supporting students with disabilities. Some practical aspects of the Information Systems and Data Management programme include use of specialised software or complex database operations. Prospective students are encouraged to visit the campus to evaluate the facilities and discuss their specific needs confidentially. For further support, contact the Disability Support Service at disability@mdx.ac.uk.

17. HECos code(s)

100361: Business Information Systems

18. Relevant QAA subject benchmark(s) Computing 2022

#### **19. University Regulations**

This programme will run in line with general University Regulations: <u>Policies | Middlesex</u> <u>University</u>

This programme will run in line with general University Regulations: Policies | Middlesex University

#### 20. Reference points

The following reference points were used in designing this programme:

•QAA Subject benchmark statement computing (2022) (https://www.qaa.ac.uk/the-quality-code/subject-benchmark-statements/computing)

•The revised UK Quality Code for Higher Education (2024)

(https://www.qaa.ac.uk/docs/qaa/quality-code/uk-quality-code-for-higher-education-2024.pdf)

•QAA Master's Degree Characteristics Statement (2020) (https://www.qaa.ac.uk/the-qualitycode/characteristics-statements/characteristics-statement-masters-degrees)

•Standard for Chartered IT Professional (https://www.bcs.org/upload/pdf/chartered-it-professional-standard.pdf)

•Skills Framework for the Information Age (SFIA) (https://www.sfia-online.org/en)

•Descriptors defining levels in the European Qualifications Framework (EQF)

(https://ec.europa.eu/ploteus/en/content/descriptors-page)

•European e-Competence Framework (https://esco.ec.europa.eu/en/about-esco)

•Middlesex University Regulations (2024/25) (https://www.mdx.ac.uk/media/middlesexuniversity/about-us-pdfs/academic-quality/University-Regulations-for-Undergraduate-Taught-Programmes.pdf)

•Middlesex University Learning and Quality Enhancement Handbook (section 3)

(https://www.mdx.ac.uk/about-us/policies/academic-quality/handbook/lqe-handbook-section-3)

•Middlesex University Policies (https://www.mdx.ac.uk/about-us/policies)

•Middlesex University Public Policy Statements (https://www.mdx.ac.uk/about-

us/policies/public-policy-statements)

•Middlesex University Graduate Competencies

•Middlesex University Learning Framework Principles for Postgraduate Programmes

21. Other information (if applicable)

Please note programme specifications provide a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve if they take full advantage of the learning opportunities that are provided. More detailed information about the programme can be found in the rest of your programme handbook and the university regulations.

# **Curriculum map for MSc Information Systems and Data Management for Business** Programme learning outcomes

#### Knowledge and understanding

A1	The nature of Information Systems within the context of underpinning systems theory, organisational theory, and core business principles necessary to implement and evaluate Information Systems in a variety of organisations.
A2	Relevant business and management theories used in the development of suitable strategies for the management of Information Systems in various organisational contexts.
A3	Critical success factors of Information Systems and data management strategies in various organisational contexts and their challenges.
A4	The use and importance of emerging technologies (such as artificial intelligence) and digital data in business organisations.
A5	Knowledge/data management techniques to maintain a competitive advantage in knowledge/data driven economies.
A6	Legal, ethical and professional issues related to the use, management and governance of Information Systems and digital data used in business.

### Skills

B1	Apply relevant tools and techniques to effectively use, manage and critically evaluate Information Systems and data in various organisational contexts.
B2	Analyse, apply, and provide guidance on legal, ethical, and governance issues (including adopting strategies, tools, and best practices) for the responsible use and management of Information Systems and data in business.
В3	Perform effectively as a member of a team in complex and diverse working environments that may arise where members of a team are brought together from diverse backgrounds.
B4	Manage own learning and development, demonstrating time management, effective communication and organisational skills at a professional level.
B5	Deploy a wide range of resources, technologies, advanced techniques and solutions from one specialised field of learning to another and from one complex problem situation to another.

B6 Apply research methods and domain-specific knowledge to plan, manage and execute a significant research project, demonstrating originality, critical thinking, and effective problem-solving

#### **Programme learning outcomes -** Highest level achieved by graduates

Α	Α	Α	Α	Α	Α	В	В	В	В	В	В
1	2	3	4	5	6	1	2	3	4	5	6
7	7	7	7	7	7	7	7	7	7	7	7

#### Mapping by level of study and module

Module Title	Module Code by Level of study	A 1	A 2	A 3	A 4	A 5	A 6	B 1	B 2	B 3	B 4	B 5	B 6
Level of study (year)													
Legal and Ethical Aspects of Emerging Technologies	CST4321												
Digital Business and Data Compliance	CST4326												
Strategic Information Systems and Project Management	CST4331												
Data Management for Business Intelligence	CST4341												
AI and Machine Learning for Business	CST4346												
Information and Knowledge Discovery for Business	CST4351												

Research Methods and	CST4990						
Postgraduate Project							