BSc (Hons) Business Information Systems

Programme Specification

1. Programme title	BSc (Hons) Business Information Systems
	BSc (Hons) Business Information Systems with Foundation Year
2. Awarding institution	Middlesex University
3. Teaching institution	Middlesex University (HEN / DBI)
4. Details of accreditation by professional/statutory/regulatory body	British Computer Society
5. Final qualification	BSc (Hons) Business Information Systems
	Diploma in HE Business Information Systems
	Certificate in HE Business Information Systems
6. Year of validation **Year of amendment**	2018/19
7. Language of study	English
8. Mode of study	Full Time / Part Time / Thick Sandwich

9. Criteria for admission to the programme

Students should have the equivalent of 96 UCAS Tariff points to gain entry to level 4. All candidates should possess at least grade C in GCSE Maths and English language, or equivalent.

Middlesex University has a flexible and personalised approach to admissions and we accept applications from students with a wide range of qualifications and a combination of qualifications. Please check our general entry requirements page (available at https://www.mdx.ac.uk/study-with-us/undergraduate/entry-requirements-for-undergraduates) to see how these points can be achieved from our acceptable level 3 qualifications and the combinations, which are welcomed by Middlesex University, including GCSE requirements.

If you have achieved a qualification such as a foundation degree or HND, or have gained credit at another university, you may be able to enter the programme in year two (level 5) or three (level 6). For further information please visit our Transfer students page (available at https://www.mdx.ac.uk/study-with-us/undergraduate/how-to-apply-for-undergraduate-courses). For direct entry to levels 5 and 6 students are required to pass the equivalent of 120 credits specified in the programme at levels 4 and 5, respectively. Applicants will be expected to demonstrate the programme learning outcomes have been met at these levels.

Applications from mature candidates without formal qualifications are welcomed, provided they can demonstrate appropriate levels of relevant ability and experience. Mature applicants with relevant work experience are welcome to apply for direct entry at levels 3, 4 and 5. These applicants are required to submit a portfolio of work experience to show evidence of achieving relevant learning outcomes, and these will vary depending on both the programme and level the student is applying for. Evidence should comprise the applicant's own work and may include documents they have written, procedures they have designed, proposals they have drafted, electronic resources, photographs, video etc. or information gathered from others about you such as statements from employers, certificates of in-house courses completed.

Individual applicants may wish to claim certain number of credits against their learning that may have taken place outside education or through training that is not assessed as part of an education system. Typically these applicants would possess knowledge and skills that may have been acquired at the workplace through practice but may not be supported by formal qualifications. Applicants may also hold academic, vocational or professional qualifications that may be aligned to certain modules of the programme at an appropriate level. Typically such qualifications are supported by evidence in the form of certification. Each of these cases is considered individually with the scope to assess whether applicants should be allowed in the programme with specific credit that would count towards the end qualification, to an appropriate point of the programme. As each case is treated individually, applicants should seek support from the programme team towards their application with Recognition of Prior Experiential Learning or Recognition of Prior Certificated Learning.

International students who have not been taught in the English medium must show evidence of proven ability in English such as IELTS grade 6.0. The University provides pre-sessional 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.

University policies supporting students with disabilities apply, as described in the University Regulations, 'Information for students with disabilities'.

Further guidance may be obtained from the Programme Leader or Director of Programmes.

10. Aims of the programme

The programme aims to provide students with an understanding of the advantages of aligning information systems with different organisational and business goals, and with various strategic and operational activities. Students will learn how to use a range of technical skills and methods, both for managing data, and for developing information systems, in response to different business problems and to different needs. The programme aims to instil an ethos of independent learning and continuous professional development amongst its graduates. Graduates of the programme will be equipped with the professional and employability skills that will enable them to pursue a successful future career in this field.

The programme's aims are underpinned by the following key principles of Information Systems; the importance of information in all modern organisations and the strategic value of information systems within a global business context; the pivotal role of information and communication technologies in information systems, and the key role of people in designing, managing and using these systems. At the core of the programme, Data Analytics is the process of collecting, storing, organising and analysing large sets of data to discover patterns and other useful information.

11. Programme outcomes*

A. Knowledge and understanding

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

1. The strategic value of aligning information systems with the goals and requirements of diverse stakeholders in a global environment.
2. The capabilities of different information systems across a wide range of organisational and business contexts, and the criteria for evaluating the success of such systems.
3. The impact of current and emerging technologies on the development and management of information systems.
4. The social, professional, legal and ethical issues related to the design, management and use of information systems in different domains.
5. The functions, structures and management of business organisations.
6. The business decision-making processes and their internal and external information requirements.

Teaching/learning methods

Students gain knowledge and understanding through

- Lectures illustrating theories, concepts and principles through case studies, examples and scenarios
- Supervised practical, laboratory work
- Supervised seminars and tutorials
- Guided individual and group research
- Coursework assignments
- Open-ended practical assignments
- Project work
- Online discussion boards
- Directed reading
- Supervised laboratories and practical exercises
- Critical thinking and problem-solving activities
- Directed reading and seminar discussions
- Experimentation
- Modelling
- Individual and group coursework assignments
- Student presentations

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7. The application of theories and concepts of informatics to different domains. 8. Analytical and critical thinking skills in approaching and solving a range of practical, technical and research problems. 9. The use of different research techniques and methods of data collection appropriate to different fields. 10. The critical evaluation, synthesis and effective use of information from a variety of sources.	• Essays **Assessment methods** Students' knowledge and understanding is assessed by • Informal individual and group work during supervised seminars, tutorials and labs • Essays • Reports • Presentations • Online quizzes • Documentation • Individual and group coursework assignments • Lab exercises • Lab tests • Unseen examinations • Modelling of systems • Assessing case studies • Appropriate use of Case tools for analysis and design • Peer assessment and review
B. Skills On completion of this programme the successful student will be able to: 1. Demonstrate practical understanding of data analytics and knowledge extraction from domain-specific data 2. Demonstrate practical understanding of data and information representation, modelling and retrieval. 3. Use different tools and methods for designing information systems, to provide solutions in specific domains. 4. Critically assess the feasibility and risks of information systems development in relation to different domains, organisational needs and project management practices. 5. Locate, categorise, prioritise, and synthesise information necessary for business purposes. 6. Select and apply business monitoring and control techniques. 7. Demonstrate professional development and employability skills necessary for the successful development and	**Teaching/learning methods** Students learn cognitive skills through • Supervised practical work • Critical thinking and problem-solving activities • Practical application of concepts, principles and models to specific case studies and scenarios • Directed reading and seminar discussions • Supervised Seminars • Experimentation • Modelling • Use of Case tools for analysis and design • Individual and group coursework assignments • Students presentations • Essays • Supervised tutorials and seminars • Directed and independent research • Coursework assignments • Lectures • Individual and group project work • Formative and summative

deployment of information systems. 8. Communicate effectively to different stakeholders in a range of settings. 9. Demonstrate appropriate team-working skills, including decision-making, participating in projects, working in multi-disciplinary groups and responding to diverse stakeholder requirements. 10. Adopt an ethos of independent learning and continuous professional development.	assessment, and feedback on assignments • Online discussion boards • Directed reading • Workshop and seminars conducted by Library and Learning Support staff **Assessment methods** Students' cognitive skills are assessed by • Coursework and project work • Unseen examinations • Practical laboratory tests • Online quizzes • Modelling of systems • Assessing Case Studies • Group Assignments • Documentation • Essays • Use of Case tools for analysis and design • Peer assessment and review • Guided research • Group assignments • Individual and group presentations • Lab and Seminar Activities • Reports • Project milestones

12. Programme structure (levels, modules, credits and progression requirements)
12. 1 Overall structure of the programme

During the curriculum design of the programme, the aim was to identify certain modules where specific programme learning outcomes are assessed. In addition, a number of programme pillars have been identified offering horizontal frameworks of standard practice, where students' learning becomes the result of synthesis from a range of activities taking place in different modules. The following areas are covered in most, if not all modules of the programme:

1. Ethical framework (covering ethical issues)
2. Professional good practice framework (covering professional issues)
3. Individual/Corporate Social Responsibility framework (covering social issues)
4. Employability initiatives (focusing on student prospects)
5. Entrepreneurship/Innovation initiatives (focusing on start-up/venture ideas)
6. Personal Development Plan (focusing on personal/professional development)

7. Business awareness (assessing impact of IS on organisations)
8. People awareness (assessing impact of IS on humans)
9. Technology awareness (assessing impact of IS on new technologies)
10. Learning Experience Reflection Exercise (offering continuous feed-forward for key areas including (i) teaching delivery, (ii) learning opportunities, (iii) assessment and feedback, (iv) academic support, (v) organisation and management, (vi) learning resources, (vii) learning community and (viii) student voice.

BSc (Hons) Business Information Systems				
Level 4 1st Year	CST1340 Information in Organisations (30 credits)	CST1300 Foundation of Informatics (90 credits)		
Level 5 2nd Year	CST2310 Information Systems Analysis and Design (30 credits)	CST2320 Project Planning and Research for Information Systems Professionals (30 credits)	CST2330 Data Analysis for Enterprise Modelling (30 credits)	CST2340 Database Systems: Design and Implementation (30 credits)
Level 5 2nd Year	CST2400 Industrial Placement Year (120 credits) CST2013 Summer Internship (30 credits)			
	CST3390 UG Individual Project (30 credits)	**Option 1**	**Option 2**	**Option 3**
Level 6 3rd Year	CST3310 Strategic Information Systems (Enterprise Project) Management (30 credits)	CST3330 Innovation & Technology Management (30 credits)	CST3340 Business Intelligence (30 credits)	CST3180 User Experience (UX) Design (30 credits)
	CST3120 Teaching Computing in the Secondary School (30 credits)			

BSc (Hons) Business Information Systems With Foundation Year			
Level 3 Foundation Year	SAT0100 SMART (30 credits)	MSO0200 Foundation Mathematics (30 credits)	SAT0400 Computing and Digital Technology (30 credits)	SAT0300 Foundation Project (30 credits)
Level 4 1st Year	CST1340 Information in Organisations (30 credits)	CST1300 Foundation of Informatics (90 credits)		
Level 5 2nd Year	CST2310 Information Systems Analysis and Design (30 credits)	CST2320 Project Planning and Research for Information Systems Professionals (30 credits)	CST2330 Data Analysis for Enterprise Modelling (30 credits)	CST2340 Database Systems: Design and Implementation (30 credits)
Level 5 2nd Year	CST2400 Industrial Placement Year (120 credits) CST2013 Summer Internship (30 credits)			
Level 6 3rd Year	CST3390UG Individual Project (30 credits)	**Option 1**	**Option 2**	**Option 3**
	CST3310 Strategic Information Systems (Enterprise Project) Management (30 credits)	CST3330 Innovation & Technology Management (30 credits)	CST3340 Business Intelligence (30 credits)	CST3180 User Experience (UX) Design (30 credits)
	CST3120 Teaching Computing in the Secondary School (30 credits)			

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12.2 Levels and modules Starting in academic year 2010/11 the University is changing the way it references modules to state the level of study in which these are delivered. This is to comply with the national Framework for Higher Education Qualifications. This implementation will be a gradual process whilst records are updated. Therefore the old coding is bracketed below.		
Level 4 (1)		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following: • CST1300 – Foundation of Informatics • CST1340 – Information in Organisations	N/A	Students must pass 120 credit points at level 4 to progress to level 5.
Level 5 (2)		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS
Students must take all of the following: • CST2310 – Information Systems Analysis and Design • CST2320 – Project Planning and Research for Information Systems Professionals • CST2330 – Data Analysis for Enterprise Modelling • CST2340 – Database Systems: Design and Implementation	CST2400 Industrial Placement Year (120 credits) CST2013 Summer Internship (30 credits)	Students must pass at least 210 credit points (including 90 at level 5) in order to be eligible to enrol on modules at level 6, and at least 240 credits (including 90 at level 5) in order to be eligible to enrol on the level 6 project module (CST3990).
Level 6 (3)		
COMPULSORY	OPTIONAL	PROGRESSION REQUIREMENTS

Students must take all of the following: • CST3390 – UG Individual Project	Students must also choose at least 3 from the following: • CST3310 – Strategic Information Systems (Enterprise Project) Management • CST3330 – Innovation and Technology Management • CST3340 – Business Intelligence • CST3180 – User Experience (UX) Design • CST3120 – Teaching Computing in the Secondary School	Students are expected to achieve 120 credit points at level 6 to complete their programme and achieve 360 credit points overall. This will qualify students for the degree award of BSc Hons in Business Information Systems. Students who achieve 300 credit points with a minimum of 60 credit points at Level 6 will qualify for an ordinary degree.

12.3 Non-compensatable modules (note statement in 12.2 regarding FHEQ levels)	
Module level	**Module code**
6	CST3990

13. Curriculum map
See attached.

14. Information about assessment regulations
Information on the University's formal assessment regulations, including details of how award classifications are determined, can be found in the University Regulations available online at http://www.mdx.ac.uk/regulations/. Grades are awarded on the standard University scale of 1–20, with Grade 1 being the highest. For additional information on assessment and how learning outcomes are assessed please refer to the individual module narratives for this programme.

15. Placement opportunities, requirements and support
All Undergraduate students have the opportunity to undertake an Industrial Placement. Industrial Placements are highly encouraged by the Faculty and the University. Placements give students valuable experience, which enhances their future career

prospects. Students who undertake a placement year normally achieve better results in their final year. Please note the following:

- The placement provides a year's experience as an appropriately paid graduate trainee.

- Industrial placement is conditional on the successful completion of all modules at Levels 4 and 5. Students need 240 credits before they are able to embark on an industrial placement.

- Obtaining a placement is co-ordinated through the Employability and Careers Centre, and by a dedicated team of placement officers for the Faculty of Science and Technology.

- For undergraduate programmes, students wishing to undertake a placement position must register for the placement module.

- Each placement will be assigned to an industrial tutor who will visit the student during their placement.

- On graduation the degree will be qualified with the term "…with approved industrial experience".

Note: The placement option is not available to direct-entry students in their final year.

16. Future careers (if applicable)

All programmes in the Faculty of Science and Technology – their curricula and learning outcomes – have been designed with an emphasis on currency and relevance to future employment. Professional development and employability skills are embedded into teaching, learning and assessment at all levels of the programme.

The majority of graduates are employed in IT posts relevant to the subject area.

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

Employer links with the Faculty are encouraged in the following ways:

- By inviting practitioners from industry as guest speakers in lectures.

- Through links with companies where students are employed as part of their Industrial placement.

- Through links with alumni, both in the UK and overseas.

Graduates are likely to follow career paths in roles such as business intelligence expert, data and information analyst, ICT project manager, business consultant and ICT consultant.

17. Particular support for learning (if applicable)

The Faculty's Teaching and Learning Strategy is aligned with that of the University as a whole in seeking to develop learner autonomy and resource-based learning. In particular support of the students' learning experience, the following is provided:

- All new students go through an induction programme, and some have early diagnostic numeric and literacy testing before starting their programme.

- Learning Resources provide workshops and one to one support for those students needing additional support in academic writing, presentation skills and numeracy. Such seminars, workshops and lectures are embedded into specific modules across all levels of the programme.

- Students are allocated a personal email account, and secure networked computer storage for student's University-related files and documents.

- Soft copies of all module handbooks are provided on MyUniHub. Extensive web-based learning materials are provided to support learning in all modules.

- Extensive library facilities are available on and off campus, with e-resources accessible through the MyLibrary page on MyUniHub. Virtual learning is provided via the My Learning pages through MyUniHub. Seminars and workshops by Library and Learning Support staff are embedded into specific modules across all levels of the programme, particularly in support of programmes outcomes A9 and B8.

- Students can access advice and support on a wide range of issues from the UniHelp Desk, and specific one-to-one advice and support from the School's Achievement Officers.

- High quality specialist laboratories, equipped with industry standard software and hardware, are provided for formal teaching as well as student self-study.

- Past exam papers with solutions and marking schemes for all modules are available for students in module handbooks and at http://unihub.mdx.ac.uk

- Research activities of academic staff feed into the teaching programme, which can provide individual students with ad-hoc opportunities to work with academics on some aspects of their research.

Middlesex University encourages and supports students with disabilities. Some practical aspects of Faculty of Science and Technology programmes may present challenges to students with particular disabilities. You are encouraged to visit our campuses at any time to evaluate facilities and talk in confidence about your needs. If we know your individual needs we'll be able to provide for them more easily. For further information contact the Disability Support Service (email: disability@mdx.ac.uk)

18. JACS code (or other relevant coding system)	I200 (I100)
19. Relevant QAA subject benchmark group(s)	Computing

20. Reference points

The following reference points were used in designing this programme:

- QAA Computing subject benchmark statements, Computing (February, 2016) (https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-computing-16.pdf?sfvrsn=26e1f781_12)
- QAA Quality Code for Higher Education (February, 2015) (https://www.qaa.ac.uk/quality-code/the-existing-uk-quality-code)
- British Computer Society (BCS) guidelines on course accreditation (May, 2018) (https://www.bcs.org/category/7066)
- 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)
- Association for Computing Machinery (ACM) and Association for Information Systems (AIS) Curriculum Guidelines for Undergraduate Degree Programs in Information Systems (2010) (https://www.acm.org/binaries/content/assets/education/curricula-recommendations/is-2010-acm-final.pdf)
- Association for Computing Machinery (ACM) and Association for Information Systems (AIS) Global Competency Model for Graduate Degree Programs in Information Systems (May, 2017) (https://www.acm.org/binaries/content/assets/education/msis2016.pdf)
- Descriptors defining levels in the European Qualifications Framework (EQF) (https://ec.europa.eu/ploteus/en/content/descriptors-page)
- European e-Competence Framework (http://www.ecompetences.eu)
- Middlesex University Regulations (2018/19) (https://www.mdx.ac.uk/about-us/policies/university-regulations)
- 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)

21. Other information

N/A

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 s/he takes 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 *BSc (Hons) Business Information Systems*

This section shows the highest level at which programme outcomes are to be achieved by all graduates, and maps programme learning outcomes against the modules in which they are assessed.

Programme learning outcomes

	Knowledge and understanding
A1	The strategic value of aligning information systems with the goals and requirements of diverse stakeholders in a global environment
A2	The capabilities of different information systems across a wide range of organisational and business contexts, and the criteria for evaluating the success of such systems
A3	The impact of current and emerging technologies on the development and management of information systems
A4	The social, professional, legal and ethical issues related to the design, management and use of information systems in different domains
A5	The functions, structures and management of business organisations
A6	The business decision-making processes and their internal and external information requirements
A7	The application of theories and concepts of informatics to different domains.
A8	Analytical and critical thinking skills in approaching and solving a range of practical, technical and research problems.
A9	The use of different research techniques and methods of data collection appropriate to different fields
A10	The critical evaluation, synthesis and effective use of information from a variety of sources
	Skills
B1	Demonstrate practical understanding of data analytics and knowledge extraction from domain-specific data
B2	Demonstrate practical understanding of data and information representation, modelling and retrieval
B3	Use different tools and methods for designing information systems, to provide solutions in specific domains
B4	Critically assess the feasibility and risks of information systems

	development in relation to different domains, organisational needs and project management practices
B5	Locate, categorise, prioritise, and synthesise information necessary for business purposes
B6	Select and apply business monitoring and control techniques
B7	Demonstrate professional development and employability skills necessary for the successful development and deployment of information systems
B8	Communicate effectively to different stakeholders in a range of settings
B9	Demonstrate appropriate team-working skills, including decision-making, participating in projects, working in multi-disciplinary groups and responding to diverse stakeholder requirements
B10	Adopt an ethos of independent learning and continuous professional development

Programme outcomes																						
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10			
Highest level achieved by all graduates																						
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			

Module Title	Module Code by Level	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10
Foundation of Informatics	CST1300	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Information in Organisations	CST1340				✓	✓	✓		✓	✓	✓	✓	✓					✓			✓
Industrial Placement (1 year)	CST2400	✓	✓		✓					✓							✓	✓		✓	✓
Summer Internship (3 months)	CST2013	✓	✓		✓					✓							✓	✓		✓	✓
Information Systems Analysis and Design	CST2310			✓				✓	✓		✓	✓	✓	✓	✓			✓		✓	✓
Project Planning and Research for Information Systems Professionals	CST2320	✓			✓			✓	✓	✓	✓			✓	✓			✓	✓	✓	✓
Data Analysis for Enterprise Modelling	CST2330		✓	✓			✓		✓			✓	✓	✓		✓	✓	✓	✓		
Database Systems: Design and Implementation	CST2340			✓				✓	✓		✓	✓	✓	✓	✓			✓		✓	✓
UG Individual Project	CST3390	✓	✓		✓					✓							✓	✓		✓	✓
Strategic Information Systems (Enterprise Project) Management	CST3310	✓	✓					✓	✓		✓			✓	✓		✓			✓	✓
Innovation & Technology Management	CST3330	✓	✓	✓				✓	✓						✓						✓
Business Intelligence	CST3340	✓	✓					✓	✓			✓	✓								✓
User Experience (UX) Design	CST3180	✓			✓		✓		✓			✓		✓					✓		✓
Teaching Computing in the Secondary School	CST3120	✓	✓	✓		✓	✓	✓						✓	✓	✓		✓	✓		