

**UNIVERSITY OF
LEADING
THE WAY
WESTMINSTER**

PROGRAMME SPECIFICATION

Course record information

Name and level of final award:	BSc (Honours) Business Information Systems The BSc Business Information Systems is a BSc degree that is Bologna FQ-EHEA first cycle degree or diploma compatible
Name and level of intermediate awards:	BSc Business Information Systems Diploma of Higher Education in Business Information Systems Certificate of Higher Education in Business Information Systems
Awarding body/institution:	University of Westminster
Teaching Institution:	University of Westminster
Status of awarding body/institution:	Recognised Body
Location of delivery:	Central London
Language of delivery and assessment:	English
Mode, length of study and normal starting month:	3 year full-time 4 year full-time with industry placement
QAA subject benchmarking group(s) :	QAA subject benchmark for Computing British Computer Society guidelines on accreditation
Professional statutory or regulatory body:	This programme is accredited by the British Computer Society.
Date of course validation/review:	February 2015
Date of programme specification approval:	
Valid for cohorts :	2016/17 level 4 and 5, 2017/18 level 4,5 and 6
Course Leader	Ms Kamalini Sivagurunathan
UCAS code and URL:	http://www.westminster.ac.uk/courses/undergraduate

What are the minimum entry requirements for the course?

There are standard minimum entry requirements for all undergraduate courses. Students are advised to check the standard requirements for the most up-to-date information.

www.westminster.ac.uk/courses/undergraduate/how-to-apply

For most courses a decision will be made on the basis of your application form alone. However, for some courses the selection process may include an interview to demonstrate your strengths in addition to any formal entry requirements.

More information can be found here: www.westminster.ac.uk/courses/undergraduate/how-to-apply

Aims of the course

The overall aim of the Business Information Systems course is to develop professionals who can understand the business challenges of an enterprise and conceive and manage solutions which are ICT dependent. This course is designed to produce graduates who will be able to integrate their ICT skills with their knowledge of business operations and environments to support an enterprise to achieve competitive advantage.

The course also aims to

- develop students' critical thinking, analytical reasoning and modelling skills for problem solving;
- enable students to recognise the professional, legal and ethical issues in developing or employing information systems and technology;
- produce graduates with a range of key skills such as team working and independent learning;
- provide educational foundation for further study.

The detailed objectives are that students completing the course will be able to:

- Comprehend and demonstrate the understanding of key information and business systems and their interrelationships;
- Analyse business environment issues that influence information systems development;
- Interpret and apply proven management paradigms to a specific problem;
- Evaluate critically contending information systems development strategies and practices;
- Select and apply appropriate technology to design and deliver ICT related applications for an enterprise;
- Demonstrate awareness, knowledge and skills required to operate effectively in a commercial or public sector environment;
- Recognise the potential benefits of employing Information Systems and ICT within organisations;
- Evaluate situations and solutions and make appropriate choices in relation to the use of information systems to solve business problems in a dynamic environment.

What will you be expected to achieve?

Learning outcomes are statements on what successful students have achieved as the result of learning. These are threshold statements of achievement the learning outcomes broadly fall into four categories:

- The overall **knowledge and understanding** you will gain from your course (KU).
- **Professional and personal practice learning outcomes** are specific skills that you will be expected to have gained on successful completion of the course (PPP)
- **Key transferable skills** that you will be expected to have gained on successful completion of the course. (KTS)

Level 4 learning outcomes

Upon completion of level 4 you will be able to demonstrate the ability to:

L4-M-LO1-BIS - Analyse small scale business problems and design solutions using fundamentals of information systems.

L4-M-LO2-BIS - Apply core mathematical elements to collect and present business data and assess business situations.

L4-P-LO3-BIS - Apply programming principles and constructs to implement solutions to small scale business problems.

L4-D-LO4-BIS - Methodically capture user requirements and devise an appropriate basic information system specification that meets them.

L4-D-LO5-BIS - Describe, create and manipulate simple data constructs to store organisational data and business rules, recognising limitations of their underlying representation.

L4-O-LO6-BIS - Describe the structures, functions and procedures, and their limitations, in the technical and societal business environment.

L4-C-LO7-BIS - Recognise the impact of information systems solutions on the business operations for the organisation at all levels, considering end-user experience and security implications.

L4-S-LO8-BIS - Recognise and explain behaviour constraints of a professional code of conduct towards third parties in a Business Information Systems working environment.

L4-S-LO9-BIS - Following guidance, review literature in Business Information Systems and present in written and oral form own work and learning, critically comparing, contrasting and evaluating the findings.

Level 5 learning outcomes

Upon completion of level 5 you will be able to demonstrate the ability to:

L5-M-LO1-BIS - Specify, design, develop and test information systems to solve medium-scale business problems with appropriate techniques.

L5-M-LO2-BIS - Formally analyse and present business results to support high quality decision making using appropriate quantitative and statistical techniques.

L5-P-LO4-BIS - Develop user requirements, specifications and models into architecture and an implemented solution.

L5-D-LO5-BIS - Demonstrate how information is modelled, persistently stored, manipulated and retrieved, as data, to serve scalable solutions to medium-scale business problems.

L5-D-LO6-BIS - Employ a standard design language for the design, representation and formal specification of software.

L5-O-LO7-BIS - Explain the information systems life cycle in the context of its operating, technical and business environment.

L5-C-LO9-BIS - Identify and explain security risks and their implications for information systems.

L5-C-LO10-BIS - Identify, evaluate, and improve on interface issues between human users and computer systems using multiple platforms.

L5-S-LO11-BIS - Demonstrate professional responsibility in the development of quality business information systems solutions in a global context and the presentation and defence of these in multiple communication forms, supported by methodical research.

Level 6 learning outcomes

Upon completion of level 6 you will be able to demonstrate the ability to:

L6-M-LO1-BIS - Methodically and independently develop requirements to a technical solution for a large scale business problem using appropriate languages and tools.

L6-P-LO3-BIS - Implement a comprehensive technical solution to an advanced business problem.

L6-D-LO4-BIS - Analyse large scale data systems to discover hidden relationships and inform / automate decision making.

L6-O-LO6-BIS - Critically analyse a complex business problem/situation and develop an appropriate strategy to solve it within the constraints of information systems and their impact on society.

L6-O-LO7-BIS - Appraise the issues and implications surrounding the management of information systems projects and emergent challenges.

L6-C-LO9-BIS - Critically evaluate opportunities offered by enterprise and e-business solutions, recognising hardware and software constraints, towards a appropriate and quality assured information systems.

L6-S-LO11-BIS - Demonstrate complete handling of the full life-cycle of a business information systems project underpinned by an entrepreneurial approach and a focus on the needs of real clients and the wider society.

L6-S-LO12-BIS - Apply appropriate research methodologies in carrying out independent research in business information systems and produce a report demonstrating evidence of critical thinking.

How will you learn?

Your course is a collection of learning opportunities. Using these opportunities will help you mature in attitude and competence, preparing you for your future career and life in general. Learning in your course is a partnership: expert University staff will guide you through the necessary core knowledge of your subject and help you develop an understanding, while you, increasingly, take the leading role in pursuing the learning that meets your specific needs.

Your course is organised into a number of **modules** at each level. These are the building blocks of your course. Each module consists of a number of learning activities over a number of weeks designed to help you achieve the knowledge and skills related to a particular area within your subject.

The principal aim of your course is to equip you for professional life, or higher study, relevant to your current programme of study. To prepare you for this, the learning in your course will not take place only in the class. Your learning will use four methods, each supporting the others:

- a) **Lectures** will give you access to expertise and present you with the knowledge you need in your subject.
- b) **Practical tutorial or laboratory sessions** will allow you to understand, apply and strengthen your skills under the guidance of a tutor.
- c) **Independent study time** will let you take more control of your own learning and give you the framework that will help you to keep on learning without supervision.
- d) **Personal development** will allow you to complement your knowledge with the specific specialised skills that meet your individual needs.

In your first year of study (called **Level 4**) you will make the full transition into Higher Education. You will develop the key core skills for Business Information Systems. To help this transition your course has additional classes and support sessions at this level which you will need to fully engage with so you can prepare for the advanced study that follows.

Your second year of study (**Level 5**) will help you develop some autonomy. At this level you will develop detailed knowledge in BIS Design and Development, IT Security and up to date Project Management techniques such as Agile project management. You will also be able to deal with more specialist areas such as Business Analytics, Business Intelligence, Cloud computing etc. by yourself and in teams, reflecting on your own strengths.

Following the level 5, you may choose to have a year in industry (a **placement year**) to strengthen your understanding of industry needs through direct application of your evolving skills. In previous years, BIS students have successfully completed placements in various organisations such as IBM, GE, TFL, FDM, Emailvision, Verizon etc.

In your final year of study (**Level 6**) you will have learned to work autonomously with your lecturers increasingly being there to support you and challenge your thinking; this is the level that completes your preparation for going into industry and further study, with an ability to handle the complexity of large-scale systems and environments and with full control of your further development needs.

Throughout all levels of your course you will also develop necessary, distinct, attributes that will help you compete effectively in a global changing environment. See section on Employment and Further Study Opportunities.

How will you be assessed?

As your learning continues it is important to stop every now and then and take stock of how much you learn so that you know where you are and how much more you still need to cover.

In your course, assessment and feedback are the key elements in measuring learning. Assessment in your course has two functions: formative assessment is assessment that lets you see where you are in your learning and what you have learned so far, while summative

assessment measures how much you have learned in a way that contributes to your overall grades.

You will undertake a **wide variety of assessment tasks** as you progress through your degree course. Their nature will vary according to your level and the nature of the task. Some, such as group work, will help you to develop practical skills alongside the more specific skills that are being assessed. You will write essays and research reports, and learn to write in a style suitable to a piece of academic work, and to make proper use of references and bibliographies.

Other forms of assessment will include practical exercises ranging from small tasks that might be completed in a tutorial, to something more complex like designing and writing a larger computer program. There will be some formal examinations (usually at the end of each academic year). Some of the work will be completed individually, and sometimes you will work with other students as part of a team, emulating as close as possible the environment you will face in your later life in industry. *For example, at L5, you will be assessed on your ability to design, develop, implement and test BIS solutions to simulated industrial problems. This would give valuable skills required by IS industry.*

All assessments that contribute to your final grades will be assessed against set criteria, following rigorous quality mechanisms that ensure our academic judgement remains fair and consistent with the wider educational sector. Typically, assessment tasks will become longer, and more self-managed, as you get into the second year and the final year of your course and they will have less detail in guidance and more room for you to innovate through your own decisions informed by your own research in your specialist areas.

Assessment is designed to be a learning experience in itself and will help you make that transition from small practical exercises to more complex piece of work towards the substantial, year-long, project of your final year.

To help you see how different areas connect with each other you will have in some cases tasks that assess the outcomes from different modules in one complex piece of work. These are called **synoptic assessments**. Examples of synoptic assessment for your course include *the L5 double module BIS Design and Development and the Agile Project Management will assess your ability to combine design and development skills with the database and programming skills for implementation and testing as well as project management skills for managing a group project.*

Throughout your learning you will get feedback. **Feedback** will help you reflect on what you have learned so you can identify the areas in which you are strong and the areas in which you need to learn more. Feedback will be given to you in response to assessment, in response to questions in lectures, seminars and tutorials, and in guidance you get during supervision. But feedback will also come from your interactions with other students and with industry. All feedback will be useful to help you guide your learning so that you develop the rights skills faster.

Employment and further study opportunities

University of Westminster graduates will be able to demonstrate the following five Graduate Attributes:

- Critical and creative thinkers
- Literate and effective communicator
- Entrepreneurial

- Global in outlook and engaged in communities
- Social, ethically and environmentally aware

University of Westminster courses capitalise on the benefits that London as a global city and as a major creative, intellectual and technology hub has to offer for the learning environment and experience of our students.

The BSc (Honours) Business Information Systems course aims to create graduates who embody these graduate attributes. In the following list, course learning outcomes that develop these attributes are identified. Our graduates will be distinctive in being:

- **critical thinkers** - employing evidence-based reasoning, possessing deep and expansive knowledge of core domains of Business Information Systems, and applying multiple perspectives to BIS issues
- **creative thinkers** - making connections within and beyond the discipline, recognising distinctive contribution of IS to real-world issues, and constructing knowledge by framing and developing lines of enquiry
- **enterprising in outlook** - tackling problems resiliently and confidently both independently and in groups, reflecting and learning from own performance, with an appreciation of the routes of professional development to BIS practice
- **numerate, and effective communicators** - reasoning about data, presenting research findings effectively, and able to explain ideas clearly and fluently orally, in writing, and through the creation of artefacts such as IS solutions, posters or reports
- **global in outlook, and community engaged** – respecting diversity, promoting equality, and showing awareness of cross-cultural variance in business constructs
- **socially, environmentally and ethically aware** –practicing computer science in accordance with ethical codes, behaving with integrity, and aware of the potential application of IS solutions to the promotion of social justice and environmentally sustainable behaviour.

Graduate destinations:

The following is a sample of BSc BIS graduate destinations.

(Please note, this list is not exhaustive.)

- Data Migration Consultant, GE Healthcare
- Data Specialist Consultant and Director - Deutsche Bank (DB)
- Data Analyst - Telefonica
- Consultant - HCL AXON
- Support Analyst/UPK Developer - CQC Solutions Limited
- Business Systems Analyst - Hertz
- Junior Business Analyst - Innovation Group
- Business System Analyst - WCN
- Company Director and Business Intelligence Trainer/Consultant
- QA Engineer - ITV Plc
- Associate - JPMorgan
- Assistant E-commerce Channel Manager - Boots UK
- Counterparty & Treasury IT Business Support Analyst - UBS Investment Bank
- Project Manager - Hewlett-Packard
- Software QA Tester/Defect Management - Wincor Nixdorf
- Database Analyst - Kantar Worldpanel UK
- Campaign Assistant - SAGE Publications

Course structure

This section shows the core and option modules available as part of the course and their credit value. Full-time Undergraduate students study 120 credits per year. Course structures can be subject to change each academic year following feedback from a variety of sources.

Credit Level 4				
Module code	Module title	Status	UK credit	ECTS
4COSC001W	Programming Principles I	Core	20	10
4BUI002W	Business Mathematics	Core	20	10
4COSC003W	Computer Science Practice	Core	20	10
4MMCS003W	Web Design and Development	Core	20	10
4BUI003W	Modelling User and Systems Requirements	Core	20	10
4BUI001W	Business Information Systems Concepts	Core	20	10
Award of Certificate of Higher Education available				
Credit Level 5				
Module code	Module title	Status	UK credit	ECTS
5BUI001W	BIS Design and Development	Core	40	20
5BUI004W	Agile Project Management	Core	20	10
5BUI003W	Information Technology Security	Core	20	10
5COSC002W	Database Systems	Option	20	10
5MMCS003W	Advanced Client side Development	Option	20	10
5COSC006W	Server-side Web Development	Option	20	10
5BUI002W	Business Analytics	Option	20	10
	[Westminster Elective]	Elective	20	10
Award of Diploma of Higher Education or Foundation Degree available				
Credit Level 6				
Module code	Module title	Status	UK credit	ECTS
6BUI003W	Strategic Management of Information Systems	Core	20	10
6BUI002W	Information Driven Entrepreneurship & Enterprises	Core	20	10
6COSC006W	Final Year Project	Core	40	20
6BUI001W	Business Intelligence	Option	20	10
6MMCS001W	Mobile User Experience	Option	20	10
6MMCS002W	Digital Marketing, Social Media and Web Analytics	Option	20	10
6COSC002W	Security and Forensics	Option	20	10
	[Westminster Elective]	Elective	20	10
Award BSc available				
Award BSc Honours available.				

Please note: Not all option modules will necessarily be offered in any one year.

Professional Body Accreditation or other external references

This programme is accredited by the British Computer Society.

Academic regulations

The current Handbook of Academic Regulations is available at:

www.westminster.ac.uk/academic-regulations

How will you be supported in your studies?

Course Management

Course Leader : Ms Kamalini Sivagurunathan, responsible for day to day running and overall management of the course and development of the curriculum

Admissions Tutor : Ms Kamalini Sivagurunathan

Head of Department: Dr Aleka Psarrou, holds overall responsibility for the course, and for the courses run by the Department of Computer Science within the Faculty of Science and Technology

Dean of Faculty: Professor Jane Lewis, holds overall responsibility for the course and for other courses run by the Faculty of Science and Technology

Academic Support

Upon arrival, an induction programme will introduce you to the staff responsible for the course, the campus on which you will be studying, the Library and IT facilities, additional support available and to your Faculty Registry Office. You will be provided with the Course Handbook, which provides detailed information about the course. Each course has a course leader who is responsible for the day to day management of the course. All students enrolled on a full-time course and part time students registered for more than 60 credits a year have a personal tutor, who provides advice and guidance on academic matters. A Personal Tutor is assigned to students upon their first arrival at university to provide academic and pastoral support. Students will have the same personal tutor throughout their studies thus ensuring continuation of support. Personal tutors are also able to support their tutees by providing advice on module choices, placement opportunities, any mitigating circumstances affecting studies etc., as well as after they graduate by providing references for jobs.

The university uses a Virtual Learning Environment called Blackboard where students access their course materials, and can communicate and collaborate with staff and other students.

Learning Support

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at their Faculty. Students can search the entire library collection online through the Library Search service to find and reserve printed books, and access electronic resources (databases, e-journals, e-books).

Students can choose to study in the libraries, which have areas for silent and group study, desktop computers, laptops for loan, photocopying and printing services. They can also choose from several computer rooms at each campus where desktop computers are available with the general and specialist software that supports the courses taught at their Faculty. Students can also securely connect their own laptops and mobile devices to the University wireless network.

The University uses a Virtual Learning Environment called Blackboard where students access their course materials, and can communicate and collaborate with staff and other students.

The Academic Learning Development Centre supports students in developing the skills required for higher education. As well as online resources in Blackboard, students have the opportunity to attend Study Skills workshops and one to one appointments.

Support Services

The University of Westminster Student Affairs department provide advice and guidance on accommodation, financial and legal matters, personal counselling, health and disability issues, careers, specialist advice for international students and the chaplaincy providing multi-faith guidance. The University of Westminster Students' Union also provides a range of facilities to support students during their time at the University.

How do we ensure the quality of our courses and continuous improvement?

The course was initially approved by a University Validation Panel in 2009. The panel included internal peers from the University, academic(s) from another university and a representative from industry. This helps to ensure the comparability of the course to those offered in other universities and the relevance to employers.

The course is also monitored each year by the Faculty to ensure it is running effectively and that issues which might affect the student experience have been appropriately addressed. Staff will consider evidence about the course, including the outcomes from Course Committees, evidence of student progression and achievement and the reports from external examiners, to evaluate the effectiveness of the course. Each Faculty puts in to place an action plan. This may for example include making changes on the way the module is taught, assessed or even how the course is structured in order to improve the course, in such cases an approval process is in place.

A Course review takes place periodically to ensure that the curriculum is up-to-date and that the skills gained on the course continue to be relevant to employers. Students meet with review panels to provide feedback on their experiences. Student feedback from previous years e.g. from Course Committees is also part of the evidence used to assess how the course has been running.

How do we act on student feedback?

Student feedback is important to the University and student views are taken seriously. Student feedback is gathered in a variety of ways.

- Through Course Committees students have the opportunity to express their voice in the running of their course. Student representatives are elected to Committee to expressly represent the views of their peer. The University and the Students' Union work together to provide a full induction to the role of the student representatives.
- Each Faculty also has its own Faculty Student Forum with student representatives; this enables wider discussions across the Faculty. Student representatives are also represented on key Faculty and university committees.
- All students are invited to complete a questionnaire before the end of each module. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be enhanced.

- The University also has an annual Student Experience Survey which seeks the opinions of students about their course and University experience. Final year Undergraduate students will be asked to complete the National Student Survey which helps to inform the national university league tables.

Please note: This programme specification provides a concise summary of the main features of the course and the learning outcomes that a student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. This specification should be read in conjunction with the Course Handbook provided to students and Module Handbooks, which provide more detailed information on the specific learning outcomes, content, teaching, learning and assessment methods for each module.

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