

PROGRAMME SPECIFICATION

Course record information

Name and level of final award:	MSc The <i>MSc in Business Intelligence & Analytics</i> is an MSc degree that is Bologna FQ-EHEA second cycle degree or diploma compatible.
Name and level of intermediate awards:	Postgraduate Diploma Postgraduate Certificate
Awarding body/institution:	University of Westminster
Status of awarding body/institution:	Recognised Body
Location of delivery:	Cavendish Campus, London, United Kingdom
Language of delivery and assessment:	English
Course/programme leader:	Prof. Thierry Chausalet
Course URL:	www.westminster.ac.uk/courses/subjects/business-information-systems/postgraduate-courses
Mode and length of study:	Full Time / Part-Time (Day) / Part-Time (Evening) / Burst Mode / Block Mode
University of Westminster course code:	PECSBIS
JACS code:	
UCAS code:	P004361 (FT & PT mixed) P046347 (PTE)
QAA subject benchmarking group:	Subject Benchmark Statement: Master's degrees in Computing, 2011, available online www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/QAA386_Computing.pdf
Professional body accreditation:	British Computer Society (BCS) exemption from Part II requirement
Date of course validation/review:	Initial approval 1992, last review 2010
Date of programme specification:	September 2013

Admissions requirements

The course builds on students' graduate competences and develops further their logical, analytical skills and technical in a way that they can be applied to Business Intelligence & Analytics problems. Consideration will be given to all applicants with a good Honours (normally 2.ii or above) degree from a British University or overseas equivalent in a discipline with significant IT and/or quantitative element. More specifically candidates will be expected to have a good first degree in either a scientific or engineering discipline with some exposure to the use of IT or an area of Computer Science/Information Technology, with a strong interest in quantitative analysis.

The course will also target individuals possibly without a formal degree, but already in employment where the problems they are charged with solving, or the decision-making they are required to support entail the Data Mining and Decision Support techniques and technologies deployed in the course. In summary, candidates will be expected to already have quantitative skills with an interest in developing these further to support postgraduate activity in analysing, evaluating and reporting on a range of real world data intensive problems. Due to the technical nature of the course, applicants whose first degree discipline is not in Computing, Economics, Science or Engineering and do not have a strong Computing or quantitative flavour will be considered only if they can demonstrate that they have sufficient, in the admissions tutor's opinion, knowledge of computing and quantitative techniques to complete the course.

All applicants are required to show competence in both written and spoken English; thus, overseas applicants whose first language is not English are normally required to have attained the equivalent of an IELTS score of at least 6.5 with 6:0 or above in each element prior to joining the course (more information on minimum scores for other language tests can be obtained for the admissions office).

All applicants are required to submit with their application, copies of their academic and/or professional qualifications and transcripts, two references (one of which should be academic, for applicants who have been in Higher Education in the 5 years prior to applying for the course), and a statement explaining the reasons they want to be admitted to the course, what they expect from the course, how they are going to achieve it, what they will bring to the course, what their career aspirations are and how they think the course can help them achieve those aspirations.

The admissions policy conforms to the Equal Opportunities Policy and the Admissions Policy of the University of Westminster. Each application is considered on its individual merits and decisions in admitting applicants to the course are made based on evidence that the applicant is likely to benefit from the course and to complete it satisfactorily.

On a number of occasions, applicants may also be asked to attend an informal interview with the Admissions Tutor. For applicants leaving locally, these interviews may have the form of an invitation to the one of the University's Postgraduate Information Events, where applicants can meet members of the course team and the Admissions Tutor, ask questions and discuss any issues regarding the course. Alternatively and applicants living further afield such interviews may be contacted over the phone interview or by teleconferencing. The interviews normally aim at establishing applicants' suitability for the course and also applicants answering questions and discussing issues regarding the course.

Successful applicants with disabilities are contacted by the University of Westminster's Disability Support Co-ordinator and are asked to make an appointment with the University's Disabilities Officer, in order for the student to assess the University's facilities for disabled students. Following that meeting if it is deemed necessary a further discussion with the Course Leader may be appropriate to enable the applicant to make an informed decision.

All successful applicants are sent well before the start of the course more detailed information about module, timetable and an up-to-date reference list of textbooks that they can use to prepare for the course. Successful applicants who are not practitioners in the field and/or who feel that they may need to do more preparation before the start of the course are strongly advised to contact the Admissions Tutor or the Course Leader for advice.

Part-time students are expected to be in full-time employment; those attending in part time day mode or burst/block must have the approval of their employers to attend the course, as they are required to attend classes during work hours. Moreover, students are warned that a Masters programme of this type is by definition very intensive and it requires their total commitment if they are to be successful.

Aims of the course

The course provides a balanced study, which aims at producing graduates that are capable of:

- AIM1: thinking in a systematic and methodological way about Business Intelligence & Analytics issues;
- AIM2: utilising their problem solving skills and their knowledge of various techniques / tools / methods, to deliver Business Intelligence & Analytics solutions to a wide range of problems;
- AIM3: creating models and deploying appropriate software tools that satisfy specified requirements, and testing their use in a target domain;
- AIM4: studying the context within which the design of Business Intelligence & Analytics takes

- place, i.e. as part of the range of strategic, managerial and operational activities involved in the gathering, processing, storage and distribution of information;
- AIM5: identifying the security and legal implications of Business Intelligence & Analytics applications, e.g. Customer Relations Management (CRM);
- AIM6: independent in-depth analysis of a chosen topic making use of information resources outside a teaching environment.

The following table shows how the above aims map to modules.

	EBSY 790	EBSY 791	EBSY 706	EBSY 709	EBSY 702	EBSY 708	EBSY 701	EBSY 705	EBSY 707	EBSY 710	EBSY 711	EBSY 714	EBSY 721	EBSY 722
AIM1: AIM1:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AIM2: AIM2:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AIM3: AIM3:	•	•	•	•	•	•	•	•	•	•	•		•	•
AIM4: AIM4:	•	•	•	•	•	•	•	•	•	•	•			•
AIM5: AIM5:	•	•	•				•					•		•
AIM6: AIM6:	•	•						•	•	•		•	•	

The overall course objective is to develop students' competences so that they can either work effectively as Business Intelligence & Analytics professionals that have a strong awareness of the environment in which they operate and/or be able to pursue research oriented academic study.

Employment and further study opportunities

Today's organisations need graduates with both good degrees and skills relevant to the workplace, i.e., employability skills. The University of Westminster is committed to developing employable graduates by ensuring that:

- Career development skills are embedded in all courses
- Opportunities for part-time work, placements and work-related learning activities are widely available to students
- Staff continue to widen and strengthen the University's links with employers in all sectors, involving them in curriculum design and encouraging their participation in other aspects of the University's career education and guidance provision
- Staff are provided with up-to-date data on labour market trends and employers' requirements which will inform the service delivered to students.

Employment

Typically graduates of the course will be employed as consultants, decision modelling or advanced data analysts, members of technical/analytics teams supporting the decision making of middle and top management in different sizes of organisation operating in diverse sectors. Graduates will be expected to work in PLCs (eg Prudential, Abbey, Glaxo-Wellcome, Unilever), retail head offices, the BBC, public sector organisations such as NHS and Primary Care Trusts, Civil Service Departments, and local councils, the host of banks, brokers and regulators that make up the City, along with all the specialist support consultancies in IT and market research and forecasting, all of whom use data for the full range of decision making.

Further Studies

MPhil/PhD in Operational Research, Data mining, and Business Intelligence at the University of Westminster or at other higher education institutions.

Learning outcomes

Learning outcomes are statements on what successful students have achieved as the result of learning. These threshold statements of achievement and are linked to the knowledge, understanding and skills that a student will have gained on successfully completing a course.

Knowledge and understanding

The Masters degree will be awarded to students who have demonstrated the ability to::

- KU1: Give a critical insight into practices and workings employed in the process of Data Mining and/or Decision Support;
- KU2: Place a real world Data Mining and/or Decision Support problem in the context of both business imperatives and current Business Intelligence/Analytics practices and make

- critical evaluations subject to business and organisational requirements;
- KU3: Identify and apply effectively appropriate Business Intelligence/Analytics techniques and software tools;
 - KU4: Analyse new demands in Business Intelligence/Analytics and apply new/emerging technologies in the management of data and information resources that affect the operation and effectiveness of Business Intelligence/Analytics;
 - KU5: Recognise those professional, legal, moral and ethical issues that are relevant to Business Intelligence/Analytics and work pro-actively with others to formulate solutions;
 - KU6: Undertake the literature research necessary for in-depth study;
 - KU7: Initiate and complete a major piece of individual study independently in a research or work-based environment.

and who have the qualities and transferable skills necessary for employment requiring:

- the exercise of initiative and personal responsibility;
- decision-making in complex and unpredictable situations; and
- the independent learning ability required for continuing professional development.

The following table shows how the above skills are mapped to modules:

	EBSY 790	EBSY 791	EBSY 706	EBSY 709	EBSY 702	EBSY 708	EBSY 701	EBSY 705	EBSY 707	EBSY 710	EBSY 711	EBSY 714	EBSY 721	EBSY 722
KU1:	•	•	•	•				•	•	•	•	•	•	•
KU2:	•	•	•	•	•	•	•	•	•	•	•		•	•
KU3:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KU4:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KU5:	•	•	•	•			•	•				•		
KU6:	•	•	•				•		•	•	•	•	•	•
KU7:	•	•											•	•

Specific skills

On completion of the course, students will have developed the following subject-specific practical skills:

- SS1: ability to specify, design and construct fit for the purpose computer-based systems and components thereof using appropriate modelling techniques;
- SS2: ability to recognise risks that may be involved in the success/failure of Information Systems;
- SS3: use and application of various technologies, architectures and techniques / tools / methods (e.g. Data Warehousing, Data Mining, Distributed data management and technologies and architectures and appropriate middleware and infrastructures supporting application layers);
- SS4: appropriate knowledge of algorithms and quantitative techniques suitable for data analysis and mining in a broad range of application areas;
- SS5: ability to deliver solutions to real world problems associated with the ever evolving and changing nature of Information Technology infrastructure and increasing volume of data;
- SS6: appropriate knowledge of reflection on the impact technological advances have on nature and practices adopted within the Business Intelligence/Analytics practices and adapt to these changes;
- SS7: ability to embark on an independent in-depth analysis and/or study of any topic that may require the extensive use of a variety of information resources.

The following table shows how the above course skills are mapped to modules:

	EBSY 790	EBSY 791	EBSY 706	EBSY 709	EBSY 702	EBSY 708	EBSY 701	EBSY 705	EBSY 707	EBSY 710	EBSY 711	EBSY 714	EBSY 721	EBSY 722
SS1:	•	•	•	•	•	•	•	•	•	•	•			•
SS2:	•	•			•	•	•	•				•		•
SS3:	•	•	•	•	•	•	•	•	•	•	•	•		
SS4:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SS5:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SS6:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SS7:	•	•					•							

Key transferable skills

Upon completion of the course students will have developed a number of general rather than discipline-specific skills which any practitioner must have if s/he is to be successful. These Key Transferable Skills developed and assessed at postgraduate level are:

- KTS1: Group working
Students will be able to (a) work effectively within a group both as group leaders and/or group members; (b) clarify tasks and make appropriate use of group members abilities; (c) negotiate and handle conflict with confidence; and (d) participate effectively in the peer review process;
- KTS2: Learning resources
Students will be able to use a full range of learning resources to carry out literature reviews and engage in research activity;
- KTS3: Self-evaluation
Students will be able to reflect on own and others functioning; participate effectively in the peer review process and analyse and identify ways to improve practice; continue to advance their knowledge and understanding, and recognise their development needs and to develop new skills to a high level;
- KTS4: Management of information
Students will be able to competently undertake research tasks with minimum guidance; sieve through information clutter to identify relevance, to organise and present information effectively using different media;
- KTS5: Autonomy
Students will be independent and self-critical learner, who can act autonomously in planning and implementing tasks and who will be able to guide the learning of others;
- KTS6: Communication
Students can engage confidently in academic and professional communication with others, reporting on action clearly, autonomously and competently;
- KTS7: Problem solving
Students have independent learning ability required for continuing professional study, making professional use of others where appropriate.

Some of these skills, such as Problem Solving skills and Communication skills, are intrinsic to the nature of the course and thus they have been assessed / developed by each and every assessment component. For other skills, like group working, effort has been made to be included in as many modules as possible because ability to work effectively with/within a group, to clarify/allocate tasks, negotiate load and resolve conflict are important skills that IT professionals involved in IS design should have. The following table shows how the above key transferable skills are mapped to modules:

	EBSY 790	EBSY 791	EBSY 706	EBSY 709	EBSY 702	EBSY 708	EBSY 701	EBSY 705	EBSY 707	EBSY 710	EBSY 711	EBSY 714	EBSY 721	EBSY 722
KTS1:							•					•	•	
KTS2:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTS3:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTS4:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTS5:	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTS6:	•	•	•	•		•	•	•	•	•	•	•	•	•
KTS7:	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Learning, teaching and assessment methods

Learning & Teaching

The learning strategies employed on the course vary depending on the module and the learning outcomes for each module. The course itself consists of traditional formal lectures and 'structured lectures', where lecturing is broken up by periods of student-led activity. The lectures are used to provide a firm grounding in the theory, methods and techniques relevant to the module's topic. Lectures are usually supplemented by further instructor led sessions, where theoretical or practical in nature problems are addressed. During these sessions students will attend problem solving tutorials, sometimes working alone, often working in groups, sometimes working on paper, often working at a PC or workstation, always with a member of staff guiding the work or on hand to help resolve problems. To integrate the knowledge gained in individual modules common case studies, where possible, are used across modules, with each module tackling different aspects of the same problem.

There are also seminar sessions in which students will present work to their classmates and assess each other's work.

To support students in their studies and to allow access to module materials and course related information web-based teaching materials are used routinely. The modules' pages on the University's Virtual Learning Environment and/or the faculty's intranet pages are used as repositories for lecture notes, presentation transparencies, course/assessment schedules, coursework (including feedback) and occasionally for assessment purposes. The course recognises the importance of individuals being able to function equally well both as individuals and as members of team; thus, group activities are encouraged and promoted. To support and encourage student face to face interaction and collaborative work through exchange of emails, files, and online discussions, the facilities offered by the University's Virtual Learning Environment called Blackboard) are commonly utilised. Finally,

To summarise, teaching and learning strategies involve the use of

- case studies, to improve students' analytical and problem solving skills;
- use of specialised software tools and packages, such as Development Environments and Computer Aided Software Engineering (CASE), to build students hands on skills and understanding of such tools;
- presentations from outside speakers with industrial experience, to enable students see how the taught material is applied in industry;
- team/group work, to enable students develop further their teamwork skills to work effectively in a professional environment;
- research methods involving the use of library and online sources to develop students research and analysis skills.
- presentations and academic report writing as part of the assignments set, to develop further these important skills.

Assessment

A number of the taught modules in the programme are entirely assessed through coursework, but the diet of assessment for a significant number of modules involves both a coursework and an examination component, the latter of which normally takes the form of a two-hour examination at the end of the academic year.

Where the assessment of a module involves both examination and coursework, the relative weightings of the examination and coursework components are normally 50/50. For modules, where the assessment diet involves a combination of coursework and exam students are expected to achieve a minimum mark of 35 in the exam and the coursework (on aggregate) in order to pass; however, for most of the coursework only modules students have to achieve the above threshold mark in each individual coursework component in order to pass.

The approach taken in relation to assessment is that assessment is an integral part of the learning process; thus, assessment is designed to be fit-for-purpose in demonstrating the achievement of the specific module learning outcomes. The general principles governing assessment on the course are:

- a variety of assessment methods are employed fit-for-purpose to measure particular learning outcomes;
- the choice of assessment method(s) employed provides an opportunity for new learning and contributes to the learning process;
- timely and formative feedback is given for all assessments, including examinations;
- assessment is criterion-based, i.e. assessed work is marked using clearly stated assessment criteria, finally,
- in selecting assessment methods consideration is given to maintaining an acceptable and balance assessment loading.

Course structure

In order to be awarded a Masters in Business Intelligence & Analytics, a student must pass modules worth at least 180 credits and attempt modules worth no more than 240 credits. The modules a student needs to pass to be eligible for the award of the MSc qualification are all level 7 modules and include:

- all of the following core modules (100 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY706	Data Mining	20	10	NONE	50%	50%
EBSY709	Statistics & Operational Research	20	10	NONE	–	100%
EBSY790	Research Methods and Professional Practice	0	0	NONE	–	100%
EBSY791	Business Systems Pg Project	60	30	Pass at least 100 credits incl. all the core modules, i.e. EBSY706, EBSY709, EBSY702 / EBSY708 and EBSY790	–	100%

- one of the following core/optional modules (20 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY702	Database Languages	20	10	NONE	–	100%
EBSY708	Computing for Business & Management	20	10	NONE	–	100%

- and at most three of the following optional modules (20 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY701	Data Management & Repositories	20	10	NONE	30%	70%
EBSY705	Data Warehousing and OLAP	20	10	EBSY702 or EBSY708	50%	50%
EBSY707	Web Mining	20	10	NONE	40%	60%
EBSY710	Risk Modelling & Simulation	20	10	EBSY709	–	100%
EBSY711	Business Optimisation	20	10	EBSY709	50%	50%
EBSY714	Project Management	20	10	NONE	50%	50%
EBSY721	Web and Social Media Analytics	20	10	NONE	50%	50%
EBSY722	Data Visualisation and Dashboarding	20	10	NONE	–	100%
	Free Choice Module	20	10	NONE		

Please note:

- Not all option modules will necessarily be offered in any one year. The availability of modules depends on resources and on the numbers of students selecting a particular optional module.
- Although the Free Choice Module can be any postgraduate (level 7) 20 credit module offered by the Faculty, in practice students' options are limited in several ways; the free choice module has to be on a subject related to the students' programme of studies, it should not be dis-requisite / similar or prevent the student from taking any of the modules in his/her programme of studies. In any case, the Course Leader has to approve the proposed Free Choice Module before a student registers for it. Please also note that the Free Choice Module can be any of the core optional modules mentioned above.

Full time students are expected to complete the course within a calendar year, whereas students doing the course in part-time mode are normally expected to complete it over a two year period. The above means that full time students cover the taught part of the course over the two semesters of an academic year and that they work on their project during the summer months of the same year. Part time students cover the taught part of the course over four semesters (two years) and that they are expected to work on their project during the summer months their second (last) year of their studies.

A number of taught modules in the programme are assessed entirely through coursework, but for the majority of modules the diet of assessment involves both a coursework and an examination. Moreover, the coursework for the majority of modules involves a number of assessment elements that allow the thorough assessment of learning outcomes.

To pass a module, students must achieve an overall mark of 50% (the pass mark for any module is 50%) in the module. In addition and depending on the module's diet of assessment, students must achieve the threshold mark of 35% in the coursework and/or in the examination. Typically, if a coursework involves more than one assessment element then students may have to achieve the threshold mark either on aggregate or in each individual assessment element or a combination of the two. Students, who fail to achieve the above, will be deemed as having failed the module and they may be offered a re-assessment.

At the discretion of the Assessment Board, a student may be re-assessed (re-sit) once only in any module other than the project module on each occasion that they attempt the module. The following guidelines can affect potential re-assessments (in what follows the term component should be

understood as examination, coursework or any assessment element that a module's syllabus stipulates that needs to be achieved at threshold):

- If an overall mark of 50% or above is achieved and there is a particular component where a score of less than 35% is achieved, then the student will be deemed as not having passed the module and they may be offered a re-assessment in that component. The overall mark for a module successfully completed following a re-assessment will be capped at 50%.
- If an overall mark between 40% and 49% is achieved then students may be offered reassessment in the components they have not achieved the passing mark. The overall mark for a module successfully completed following a reassessment will be capped at 50%.
- If an overall mark of less than 40% is achieved, then regardless of the score of individual components the student may have to retake the module the following year with attendance.

The table below summarises the above guidelines:

		Assessment Component Mark	
		< 35%	≥ 35%
Overall Mark	More than 50%	Reassess	Pass
	Between 40%-49%	Reassess	Reassess
	Less than 40%	Retake	Retake

Academic regulations

The MSc in Business Intelligence & Analytics and its intermediate awards operate in accordance with the University's Academic Regulations and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland published by the Quality Assurance Agency for Higher Education (QAA) in 2008.

All students should make sure that they access a copy of the current edition of the general University handbook called Essential Westminster, which is available at westminster.ac.uk/essential-westminster. The following regulations should be read in conjunction with the Modular Framework for Postgraduate Courses and relevant sections of the current Handbook of Academic Regulations, which is available at westminster.ac.uk/academic-regulations.

Award

To qualify for the award of MSc in Business Intelligence & Analytics, a student must have:

- obtained a minimum of 180 credits at Level 7;
 - attempt modules worth no more than 240 credits; and
- Note: A first attempt of any module will count as an attempt, and a re-attempt of any module that a student has failed will count as a further, separate attempt. Re-assessment following referral at the first sit will not count as a further separate attempt.
- satisfied the requirements contained within any course specific regulations for the relevant Course Scheme.

The University may award a Masters Degree with

- Merit to a student whose marks average at least 60% across modules at Level 7, or
- Distinction to a student whose marks average at least 70% across the modules at Level 7.

Intermediate Awards

These are awards that students are not normally registered for in the first instance. A student's registration may be changed to one of these exit awards, if a student has failed too many modules and cannot be considered for the target award s/he is registered for or a student claims such an award because s/he is withdrawing the course.

Postgraduate Diploma in Business Intelligence & Analytics

In order to be awarded a Postgraduate Diploma (PgDip) in Business Intelligence & Analytics, a student must pass modules worth at least 120 credits and attempt modules worth no more than 240 credits. The modules a student needs to pass to be eligible for the award of the Postgraduate Diploma (PgDip) in Business Intelligence & Analytics qualification are all level 7 modules and include:

- all of the following core modules (40 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY706	Data Mining	20	10	NONE	50%	50%
EBSY709	Statistics & Operational Research	20	10	NONE	–	100%

– one of the following core/optional modules (20 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY702	Database Languages	20	10	NONE	–	100%
EBSY708	Computing for Business & Management	20	10	NONE	–	100%

– and at most three of the following optional modules (20 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY701	Data Management & Repositories	20	10	NONE	30%	70%
EBSY705	Data Warehousing and OLAP	20	10	EBSY702 or EBSY708	50%	50%
EBSY707	Web Mining	20	10	NONE	40%	60%
EBSY710	Risk Modelling & Simulation	20	10	EBSY709	–	100%
EBSY711	Business Optimisation	20	10	EBSY709	50%	50%
EBSY714	Project Management	20	10	NONE	50%	50%
EBSY721	Web and Social Media Analytics	20	10	NONE	50%	50%
EBSY722	Data Visualisation and Dashboarding	20	10	NONE	–	100%
	Free Choice Module	20	10	NONE		

The University may award a Postgraduate Diploma with

- Merit to a student whose marks average at least 60% across the modules contributing to the award, where the Diploma is the target award rather than an intermediate award conferred following failure in one or more modules, or
- Distinction to a student whose marks average at least 70% across the modules contributing to the award, where the Diploma is the target award rather than an intermediate award conferred following failure in one or more modules.

Postgraduate Certificate in Business Intelligence & Analytics

In order to be awarded a Postgraduate Certificate (PgCert) in Business Intelligence & Analytics, a student must pass modules worth at least 60 credits and attempt modules worth no more than 240 credits. The modules a student needs to pass to be eligible for the award of the Postgraduate Certificate (PgCert) in Business Intelligence & Analytics qualification are all level 7 modules and include:

– all of the following core modules (40 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY706	Data Mining	20	10	NONE	50%	50%
EBSY709	Statistics & Operational Research	20	10	NONE	–	100%

– and at most one of the following optional modules (20 credits):

Module Code	Module Title	UK Credits	ECTS	Pre/Co-requisites	Exam	Course work
EBSY701	Data Management & Repositories	20	10	NONE	30%	70%
EBSY702	Database Languages	20	10	NONE	–	100%
EBSY705	Data Warehousing and OLAP	20	10	EBSY702 or EBSY708	50%	50%
EBSY707	Web Mining	20	10	NONE	40%	60%
EBSY708	Computing for Business & Management	20	10	NONE	–	100%
EBSY710	Risk Modelling & Simulation	20	10	EBSY709	–	100%
EBSY711	Business Optimisation	20	10	EBSY709	50%	50%
EBSY714	Project Management	20	10	NONE	50%	50%
EBSY721	Web and Social Media Analytics	20	10	NONE	50%	50%
EBSY722	Data Visualisation and Dashboarding	20	10	NONE	–	100%
	Free Choice Module	20	10	NONE		

The University may award a Postgraduate Certificate with

- Merit to a student whose marks average at least 60% across the modules contributing to the award, where the Diploma is the target award rather than an intermediate award conferred following failure in one or more modules, or
- Distinction to a student whose marks average at least 70% across the modules contributing to the award, where the Diploma is the target award rather than an intermediate award conferred following failure in one or more modules.

Support for students

Upon arrival, an induction programme will introduce students to the staff responsible for the course, the campus on which they will be studying, the Library and IT facilities and to the Faculty Registry. Students will be provided with the Course Handbook, which provides detailed information about the course. Students are allocated a personal tutor who can provide advice and guidance on academic matters.

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.

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

Reference points for the course

Internally

- The [University's Mission Statement](#)
- The University's [Quality Assurance and Enhancement Handbook \(2009\)](#)
- The University's [Handbook of Academic Regulations \(2009\)](#)
- [L & T Good Practice Guides](#) produced by Westminster Exchange
- [Learning & Teaching Guides for the Inclusive Curriculum for Disabled Students \(2009\)](#) produced by ICDS Project Team
- [Learning, Teaching & Assessment Strategy 2009-11](#)
- Outcomes and actions of the [Curriculum and Assessment Enhancement Workshop](#)
- Academic staff research interests in Database Systems, Database Languages, Systems Architecture, Data Warehousing, Data Mining, Information Knowledge Management, etc.

Externally

- QAA, Subject Benchmark Statement: Master's degrees in Computing, 2011, available online www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/QAA386_Computing.pdf
- [The Benchmarking Standards for Taught Masters Degrees in Computing](#), 2008 sponsored by CPHC and BCS,
- BCS, [Guidelines on Course Accreditation – Information for Universities and Colleges](#), September 2010.
- SEEC Credit Level Descriptors 2001, Jan 2002.

Professional body accreditation

The course is accredited by British Computer Society, (BCS); graduates of the course who wish become members of the BCS will be given exemption from Part II requirement. More information on BCS and membership paths can be found at www.bcs.org.

Quality management and enhancement

Course management

The Course Leader is responsible for the academic management and organisation of the course. The Course Leader, who is also the Admissions Tutor for the course, is assisted by an Examinations Officer and a Project Co-ordinator. The Course Team comprises the Course Leader and all the members of staff who teach on the course. Typically each module is delivered by a module team. Each module has a Module Leader, who is responsible for co-ordinating the module team and for the delivery, resourcing and smooth running of the module.

Course approval, monitoring and review

The course was initially approved by a University Validation Panel in 2010. The panel included internal peers from the University and external subject specialists from academia and industry to ensure the comparability of the course to those offered in other universities and the relevance to employers. Periodic course review helps to ensure that the curriculum is up-to-date and that the skills gained on the course continue to be relevant to employers.

The course is 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 each Course Committee, evidence of student progression and achievement and the reports from external examiners, to evaluate the effectiveness of the course. The Annual Monitoring Sub-Committee considers the Faculty action plans resulting from this process and the outcomes are reported to the Academic Council, which has overall responsibility for the maintenance of quality and standards in the University.

Student involvement in Quality Assurance and Enhancement

Student feedback is important to the University and student views are taken seriously. Student feedback is gathered in a variety of ways. The most formal mechanism for feedback on the course is the Course Committee. Student representatives will be elected to sit on the Committee to represent the views of their peer group in various discussions. The University and the Students' Union work together to provide a full induction to the role of the Course Committee.

All students are invited to complete a Module Feedback 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 elicits feedback from students about their course and University experience.

Students meet with review panels when the periodic review of the course is conducted to provide oral feedback on their experience on the course. Student feedback from course committees is part of the Faculty's quality assurance evidence base.

For more information about this course:

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Course Enquiries:

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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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