

# **PROGRAMME SPECIFICATION**

# **Course record information**

Name and level of final award	MSc Big Data Technologies  The above is an MSc degree that is Bologna FQ-EHEA second cycle degree or diploma compatible.						
Name and level of intermediate awards	Postgraduate Diploma (PgDip) in Big Data Technologies						
	Postgraduate Certificate (PgCert) in Big Data Technologies						
Awarding body/institution	University of Westminster						
Teaching Institution	University of Westminster						
Status of awarding body/institution	Recognised Body						
Location of delivery	Cavendish Campus, Central London, United Kingdom						
Language of delivery and assessment	English						
Mode, length of study and normal starting month	One year full time, two years part time evening, part time mixed. September start.						
QAA subject benchmarking group	Subject Benchmark Statement: Master's degrees in Computing, 2011.						
Professional statutory or regulatory body	British Computer Society (BCS) Accreditation is pending for CITP Further Learning and CEng (partial fulfilment)						
Date of course validation/Revalidation	2019						
Date of programme specification approval	2020						
Valid for cohorts	from 2020/21						
Course Leader	Tasos Ptohos						
Course URL	westminster.ac.uk/courses/postgraduate						
Westminster course code	PMBIS03F (FT) PMBIS03P (PT)						
HECoS code	100370 – The study of the specification, use, processing, analysis and availability of data within its						

	context.  100372 – The study of the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise.  100406 – The study of the collection and analysis of numerical data.
UKPASS code	D09FPDBS (FT) D09PPDBS (PT) D09PPDBS (PT Direct entry)

# **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 problems related to the use and applications of Big Data. The technical nature of the programme means that applicants need to have prior study of some aspect of computing itself, or another discipline which provides important underpinning for, or insight into, the discipline of IT/computing, or an application domain where there are important benefits that flow from a close marriage with IT/Computing (e.g. sciences or engineering, business studies).

There are standard minimum <u>entry requirements</u> for all postgraduate courses. Applicants are advised to check the standard requirements for the most up-to-date information.

Mature applicants, who can demonstrate enthusiasm and commitment to study and have a long and extensive relevant work experience in business and industry but who may lack the required formal academic qualifications, are encouraged to apply; all such applications will be considered carefully and where maturity and experience outweigh gaps in formal academic qualifications, the academic qualification requirement may be relaxed.

All applicants are required to show competence in both written and spoken English; overseas applicants whose first language is not English are normally required to have attained, in the IELTS Academic test, a minimum score of 6.5 overall with a minimum 6.0 in each component (more information on other acceptable language tests and minimum scores required can be obtained from the admissions office).

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

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

# **Recognition of Prior Learning**

Applicants with prior certificated or experiential learning at the same level of the qualification for which they wish to apply are advised to visit the following page for further information: westminster.ac.uk/recognition-of-prior-certified-learning.

#### Aims of the course

Advances in computing resulted in reduced hardware costs and faster processing power, whereas those in the distribution and integration of data storage enabled the development of highly scalable storage systems that can store and process efficiently and economically the massive amounts of data modern business have been capturing/collecting over time.

The above turned business data to a valuable asset as business strive to harness the power of their data to improve their understanding of their customer needs, their decision-making processes and to develop new products and cut operational costs.

The MSc in Big Data Technologies has been designed with a high degree of relevance to the industry's needs. By its nature, the course is practitioner oriented and it provides highly marketable skills relevant to the development of applications/processes for capturing, modelling, designing, storing, managing, administering and analysing the massive amounts of data that modern companies hold in their Corporate Information Systems and Information Centres to support business decision making.

The course is aimed at (a) graduates with a good Honours degree with a substantial Computing flavour who wish to pursue a postgraduate qualification in the field of Big Data Systems; and (b) practitioners who want to enhance their professional abilities, develop further their careers, update their technical skills and/or deepen their knowledge/understanding of cutting-edge technologies.

Overall the course aims to develop/enhance students' competences and equip them with the highly paid technical skills that will enable them to be employed as IT professionals who have a strong awareness of the environment in which they operate, can harness the power data has, and/or be able to pursue research oriented academic study. More specifically, the course provides a balanced study that aims at producing graduates capable of:

- AIM1: thinking in a systematic and methodological way about Big Data issues;
- AIM2: utilising their problem-solving skills and their knowledge of various techniques / tools / methods, to deliver solutions to a wide range of Big Data related problems;
- AIM3: studying the context within which the design of Big Data Systems takes place, i.e. as part of the range of strategic, managerial and operational activities involved in the gathering, processing, storage, representation and distribution of data and information;
- AIM4: critically evaluating alternative design and implementation strategies and the impact emerging technological advances have on delivering solution within Big Data practices;
- AIM5: creating models and/or deploying appropriate techniques and tools to deliver / manage / administer web-enabled database solutions and/or information systems solutions that satisfy specified requirements in a target domain;
- AIM6: independent in-depth analysis of a chosen topic making use of information resources outside a teaching environment;
- AIM7: developing professional attitudes as well as the interpersonal and entrepreneurial skills required of a practitioner in the industry;
- AIM8: being self-motivated and independent learners, self-aware and able to reflect on their learning, and to manage their own personal development and career planning.

# **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.

The MSc in Big Data Technologies aims to create talented/graduates who will have the knowledge and skills to seek employment as application/system developers, architects,

designers and administrators of Data Systems, data scientists, data analysts, consultants, business intelligence developers, data quality/compliance officers, data officers, data governance analysts/officers, data governance, OLAP programmers, ETL programmers, in a diverse range of industries that require the capturing, storage, processing and use of Big Data Systems including banking, finance, healthcare, pharmaceuticals, NHS, retail, engineering, smart environments, security and more.

# **Employment**

As businesses realise the importance of data in the decision-making process, they are increasing seeking to recruit qualified people capable of harnessing the power of data. Moreover, studies show that these jobs are some of the most difficult for employers to recruit, due, in part, to the shortage of skilled workers. Thus, currently there are lots of employment opportunities in the Big Data area with salaries in the £35,000–£80,000.

Recent graduates of the course have employed as Data Analysts, Graduate Technical Analysts, and consultants by a variety of organisations, mainly in the Finance and Service Sector, including Broadridge (Financial Services) and Hortonworks (one of the leading Data Software Companies), within 6 months after their graduation. In most cases, graduates without a prior work experience were recruited at junior post, whereas graduates with a prior work experienced managed to progress their career in more senior posts.

#### Further Studies

Graduates of the programme can continue their studies by pursuing an MPhil/PhD qualification in areas such Data Science, Data Mining, Database Systems, Data Warehousing, Health Informatics, at the University of Westminster or at another higher education institutions.

#### **Course learning outcomes**

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

# Knowledge and understanding (KU) Graduates of the course will:

- KU–1: demonstrate a systematic understanding and a critical awareness of current problems and/or new insights in the development and implementation of Big Data Systems, much of which is informed by academic research and professional practice in the particular field;
- KU–2: demonstrate a comprehensive understanding of the essential principles, practices and technologies employed in the effective design, development, implementation and maintenance of systems capable of capturing, storing, processing and analysing Big Data;
- KU–3: show originality and innovation in the application of knowledge and techniques for designing, developing, implementing and maintaining Big Data Systems:
- KU-4: show critical awareness of current research issues, problems and/or insights in relation to the tools / technologies used to manipulate Big Data;
- KU–5: understand and be able to participate within the legal, social, ethical and professional framework as professionals in the field of Big Data Systems;
- KU–6: make general evaluations of commercial risk through some understanding of the basis of such risks:
- KU-7: critically evaluate current and new technologies and develop and apply new technologies.

A typical graduate of the course will be able to:

- deal with complex issues related to practices, workings and technologies employed in the process of designing, developing and managing Big Data Systems both systematically and creatively, interpret and make sound recommendations based on the data analysis produced by such systems, and communicate their conclusions clearly to specialist and non-specialist audiences;
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level;
- continue to advance their knowledge and understanding, and to develop new skills to a high level;
- and 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.

#### Specific skills (SS)

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

- SS-1: ability to specify, design and construct fit for purpose Big Data Systems and/or applications for the capture, storage, management and processing/handling of data using appropriate technologies / techniques, application development environment(s), CASE tools and/or appropriate programming languages;
- SS-2: ability to query, maintain and/or manage Big Data Systems;
- SS–3: ability to recognise risks that may be involved in the success/failure of such Systems and to devise, plan and implement strategies to address such risks;
- SS–4: use and apply various techniques / tools / methods to model and analyse data, design systems appropriate for the storage and processing of Big Data and to deliver solutions to real world problems:
- SS-5: reflect on the impact technological advances in Data Science have in the area of Big Data Systems, identify personal development needs and adapt to these changes;
- SS–6: embark on an independent in-depth analysis and/or study of the technologies / tools / methods /techniques employed in design, use and deployment of methods in the area of Big Data Systems that may require the extensive use of a variety of information resources;
- SS–7: ability to recognise, appreciate and operate within legal, ethical and professional frameworks related to use of Big Data Systems.

Programme Specification: MSc In Big Data Technologies

Version: Draft v2.2 (16 October 2019)

#### Key transferable skills (KTS)

Upon completion of the course students will have developed / enhanced further a number of general, rather than discipline-specific, skills which all practitioners must have if they are to be successful. These Key Transferable Skills developed and assessed at postgraduate level are:

# KTS-1: 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;

# KTS-2: Learning resources:

Students will be able to use a full range of learning resources to carry out literature reviews and engage in research activity;

#### KTS-3: 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;

# KTS-4: Management of information:

Students will be able to competently undertake research tasks with minimum guidance; sieve through information clatter to identify relevance, to organise and present information effectively using different media;

# KTS-5: 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:

## KTS-6: Communication:

Students will be able to engage confidently in academic and professional communication with others, reporting on action clearly, autonomously and competently;

# KTS-7: Problem-solving:

Students will have the independent learning ability required for continuing professional study, making professional use of others where appropriate.

Some of these skills, such as those related to problem-solving and communication, are intrinsic to the nature of the course and thus they are developed / assessed by each and every assessment component. For other skills effort has been put to embed the development / assessment these skills in as many modules as possible, because skills like group working are essential in enabling students work effectively with/within a group, clarify/allocate tasks, and negotiate load and resolve conflict.

# Learning, teaching and assessment methods

#### Learning

The learning strategies employed on the course vary depending on the module and the learning outcomes for each module. In brief, the employed learning strategies involve the use of

case studies, to improve students' analytical and problem-solving skills; moreover, to
integrate the knowledge gained in individual modules and demonstrate how the
accumulated knowledge and understanding can be used, common case studies, where
possible, are used across modules, with each module tackling different aspects of the
same problem;

- specialised software tools and packages 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; appreciate how industry uses the various technologies / tools / methods / techniques to produce solutions;
- team/group work, to enable students develop further their teamwork skills to work effectively in a professional environment;
- seminar sessions during which students present work to their classmates and evaluate/assess each other's work;
- presentations and academic report writing as part of the assignments set, to develop further these important skills;
- continuous encouragement to exploit networking opportunities and to participate and get involved in community organised events, as these enable students to identity areas for improvement while demonstrating their skills and knowledge on specific subjects / topics;
- industry based projects to enable students (a) participate in a real life project; (b) develop/enhance a high degree of organisational skills as they have to work under the guidance of industrial supervisors and adhere to strict timetables for deliverables and deadlines; (c) be exposed to work ethics and culture and experience the ethos of a workplace environment all of which enhance further students' social, interpersonal and professional skills;
- assessment and feedback as an integral part of the learning process to enable students

   (a) gauge their progress in relation to learning;
   (b) reflect on what they have learned;
   (c) identify areas in which they are strong and areas in which they need to learn more so that students develop the rights skills faster;
   and (d) help them make informed decisions on the pace and focus of their own independent learning;
- assessments as a tool to develop/enhance students skills and competences; for example
  working on an assignment as part of team will help students develop/practice their group
  working skills, whereas an essay and research report can be used not only to assess
  students' knowledge and understanding of a specific topic(s), but also help develop
  students' academic writing skills including those related to formatting and proper use of
  referencing.

Finally, to support students in their studies and to allow access to module materials and course related information the University's Virtual Learning Environment (VLE), called Blackboard, is routinely used as a repository for lecture notes, presentation transparencies, course/assessment schedules, coursework briefs (including feedback), and assessment purposes. The VLE is also used as a platform that through exchange of emails, sharing of files and documents, and online discussions encourages student interaction, promotes group activities and supports collaborative work.

#### Teaching

The teaching 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 typically supplemented by further instructor led sessions, where theoretical or practical in nature problems are addressed. During these sessions, students 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.

Programme Specification: MSc In Big Data Technologies

Version: Draft v2.2 (16 October 2019)

#### Assessment

Assessments are designed to form part of the learning experience and they can have a variety of types and forms. For example, assessments may involve practical exercises ranging from small tasks that might be completed in a tutorial, to more complex tasks, like the design creation of an artefact, or the investigation/research on a topic/area. Some of the assessments are designed to be completed individually, whereas other assessments may require students to work as part of a team, emulating as close as possible the environment students will face in later life in industry. Types of assessment used in the course include essays, technical / lab reports, practical tests/exercises, quizzes, in-class or online tests, practical exercises, portfolios, demonstrations, oral presentations, vivas, project reports, time constraint examinations, etc.

Assessment can be (a) formative (i.e. helps establish where students are in their learning and what they have learned so far), or (b) summative (i.e. measures how much they have learned in a way that contributes to their overall grades). The type and nature of the employed assessment methods varies depending on the module and its associated learning outcomes. The guiding principles in designing/choosing a module's assessment include:

- the choice of assessment method(s) employed needs to provides an opportunity for new learning and contribute to the learning process;
- the assessment method used should be fit-for-purpose able to measure students' achievement in the module's associated learning outcomes of each module;
- assessment is criterion-based, i.e. assessed work is marked using clearly stated assessment criteria,
- in selecting assessment methods consideration is given to the amount of effort and time required to complete the task(s) and to maintain an acceptable and balance assessment loading;
- timely and formative feedback is to be given for all assessments, including examinations; finally
- the feedback students will receive needs to enable students make that transition from small practical exercises to more complex pieces of work towards your postgraduate project;

All assessments that contribute to final grades will be assessed against clear assessment criteria stated in module descriptors; these assessment criteria are directly linked to the module's learning outcomes and they will be used to evaluate the submitted work and produce written feedback. Marks will be produced following rigorous quality mechanisms that ensure academic judgement remains fair and consistent with the wider educational sector. Feedback is given in various forms and stages; for example, in response to assessment, in response to questions in lectures, seminars and tutorials, and in guidance given during the supervision of student projects. Feedback will also come from interactions with other students and participation in / involvement with industry or community events.

The assessment diet of most of the modules involves a mixture of practical coursework and a closed book problem solving focused examination. For most of the modules, the coursework component involves a few assessment elements that may involve laboratory work, technical reports, oral presentations, in-class (written or online) tests, etc. Examinations are normally two-hour long and take place after the end of each semester. The Postgraduate Project, which is a substantial piece of work that involves the investigation/research of a topic and the development of an artefact, is assessed using a written report and a viva where the students need to discuss and defend their work and findings. The table provided in the course structure section below has some further information on whether a module is a coursework only module or whether it is assessed by a combination of coursework and exam (along with the relevant weightings).

Programme Specification: MSc In Big Data Technologies

Version: Draft v2.2 (16 October 2019)

To pass a module, students are expected to achieve the passing mark, i.e. 50%, overall and to achieve the qualifying mark (typically 40%) in each of the assessment components; i.e. for modules whose assessment diet involves a mixture of coursework and exam, students typically need to achieve the qualifying mark in the exam and in the coursework (on aggregate), whereas, for coursework only modules students have to achieve the qualifying mark in each element of the coursework.

#### **Course structure**

This section shows the core and option modules available as part of the course and their credit value. Full-time Postgraduate students study 180 credits per year.

To be eligible for the award of a Master's in Big Data Technologies, 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 (120 credits)

Module Code	Module Title	Status	UK Credits	ECTS Credits
7BDIN006W	Big Data Theory and Practice	core	20	10
7BDIN007W	Data Repositories Principles & Tools	core	20	10
7BUIS010W	Data Warehousing and Business Intelligence	core	20	10
7COSC012W	MSc Project	core	60	30

and three of the following optional modules (60 credits):

Module Code	Module Title	Status	UK Credits	ECTS Credits
7BUIS009W	Data Visualisation and Dashboarding	option	20	10
7BUIS025W	Web and Social Media Analytics	option	20	10
7BUIS008W	Data Mining and Machine Learning	option	20	10
7SENG009W	IoT Computing	option	20	10
7CSEF002W	Cyber Security Threats and Countermeasures	option	20	10
	Free Choice Module	option	20	10

## Please note:

- Not all option modules will necessarily be offered in any one year. In addition, timetabling and limited spaces may mean you cannot do your first choice of modules.
- The Free Choice Module can be any postgraduate (level 7) 20 credit module offered by the School. In practice, students' choices for their Free Choice Module are limited in several ways, as the chosen free choice module has to (a) be on a subject related to the programme of studies they are pursuing; (b) should not be a dis-requisite / similar module to any of the modules the student has registered; and/or (c) should not prevent the student from taking any of the modules in their programme of studies. In all cases that involve a Free Choice Module, the Course Leader needs to be consulted and approve the student's Free Choice Module before it is registered, the Course Leader decision is final.

Full-time students are expected to complete the course within a calendar year; students doing the course in part-time mode are expected to complete the course over a two-year period. The above means that full-time students study 180 credits per year and they 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.

## The University may award

- a Master's Degree with Merit to a student whose marks average at least 60% across modules at Level 7;
- Master's Degree with Distinction to a student whose marks average at least 70% across the modules at Level 7.

#### Intermediate Exit Awards

These are awards that students are not normally registered for in the first instance. A student will be recommended by the Assessment Board for one of these lower awards if the student

- fails to achieve sufficient credits to gain the award for which they are enrolled, and
- is excluded on academic grounds or as being 'timed out', or for good cause, as adjudged by the Assessment Board, has terminated their studies early, and
- has achieved sufficient credits to gain a lower level or lower volume award.

# **Professional Body Accreditation or other external references**

# Professional body accreditation

This master's degree has been submitted for accreditation by BCS, The Chartered Institute for IT for the purposes of fully meeting the further learning academic requirement for registration as a Chartered IT Professional. The accreditation is a mark of assurance that the course meets the standards set by BCS and it entitles you to professional membership of BCS, which is an important part of the criteria for achieving Chartered IT Professional (CITP) status through the Institute.

This master's degree has also been accredited by BCS, The Chartered Institute for IT on behalf of the Engineering Council for the purposes of partially meeting the academic requirement for registration as a Chartered Engineer. The accreditation is a mark of assurance that the course meets the standards set by the Engineering Council in the UK Standard for Professional Engineering Competence (UK-SPEC). An accredited degree will provide you with some or all of the underpinning knowledge, understanding and skills for eventual registration as an Incorporated (IEng) or Chartered Engineer (CEng).

Some employers recruit preferentially from accredited degrees, and an accredited degree is likely to be recognised by other countries that are signatories to international accords. More information on BCS and membership paths can be found at <a href="https://www.bcs.org">www.bcs.org</a>.

#### External References

QAA, Subject Benchmark Statement: Master's degrees in Computing, 2011

#### Internal References

- The University's Vision, Mission and Values
- The University's <u>Quality Assurance and Enhancement Handbook</u>
- The University's <u>Handbook of Academic Regulations 2019-20</u>
- Inclusive Course Design checklist
- Inclusive Curriculum Guidance
- Outcomes and actions of the Curriculum Design Workshop

## **Academic regulations**

The MSc in in Big Data Technologies and its intermediate awards operate in accordance with the University's Academic Regulations and the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies published by the Quality Assurance Agency for Higher Education (QAA) in 2014.

The following regulations should be read in conjunction with the <u>Modular Framework for Postgraduate Courses</u> and relevant sections of the current Handbook of Academic Regulations which is available at <u>westminster.ac.uk/academic-regulations</u>.

# How will you be supported in your studies?

#### Course Management

The course has a Course Leader, who is responsible the day to day running of the course, has overall responsibility for the academic management and organisation of the course and the development of the curriculum, and who reports to the Head of the School of Computer Science and Engineering and through him/her to the Head of the College of Design, Creative and Digital Industries.

The Course Leader, who is also the Admissions Tutor for the course, is assisted in their role by the Course Team, i.e. all 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 coordinating the module team and for the delivery, resourcing and smooth running of the module. Each student is allocated a Personal Tutor, who provides advice and guidance on academic matters, e.g. on choosing/planning which option modules to take, gaining further study skills, or any matters that may be affecting your studies, such as issues financial difficulties, illnesses, stress caused by bereavement, etc. The Personal Tutor is a member of the academic staff who will be familiar with your programme of studies (quite frequently, the Course Leader is also your Personal Tutor).

#### 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 Campus Registry. You will be provided with the Course Handbook, which provides detailed information about the course. Each course has a Course Leader or Director of Studies. 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. The University uses a Virtual Learning Environment, called Blackboard, where students access their course materials, and can communicate and collaborate with staff other students. Further information on Blackboard can be found westminster.ac.uk/blackboard.

#### Learning Support

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. Further information on the Academic Learning Development Centre can be found at <a href="west-minster.ac.uk/academic-learning-development">west-minster.ac.uk/academic-learning-development</a>.

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at that site. Students1 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 College. Students can also securely connect their own laptops and mobile devices to the University wireless network.

#### Support Services

The University of Westminster Student and Academic Services 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. Further information on the advice available to students can be found at <a href="westminster.ac.uk/student-advice">westminster.ac.uk/student-advice</a>. The University of Westminster Students' Union also provides a range of facilities to support students during their time at the University. Further information on UWSU can be found at <a href="westminster.ac.uk/students-union">westminster.ac.uk/students-union</a>.

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

The course was initially approved by a University Validation Panel in **2016**. 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 College 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 evidence of student achievement, reports from external examiners in order to evaluate the effectiveness of the course.

A Course Revalidation 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 Revalidation panels to provide feedback on their experiences. Student feedback from previous years 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 student engagement activities at Course/Module level, students have the opportunity to express their voice in the running of their course. Student representatives are elected to expressly represent the views of their peers. The University and the Students' Union work together to provide a full induction to the role of the student representatives.
- There are also School Staff Student Exchange meetings that enable wider discussions across the School. Student representatives are also represented on key College 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.

<sup>&</sup>lt;sup>1</sup> Students enrolled at Collaborative partners may have differing access due to licence agreements.

