

Faculty of Architecture and the Built Environment DEPARTMENT OF PROPERTY & CONSTRUCTION

POSTGRADUATE CONSTRUCTION PROGRAMME



MSc Construction Project Management MSc Construction Commercial Management MSc/Dip/Cert Building Information Management

PROGRAMME SPECIFICATION

Course record information

Name and level of final award:	MSc Building Information Management Postgraduate Diploma Building Information
	Management
	Postgraduate Certificate Building Information
	Management
	The above named awards are degrees that are
	Bologna FQ-EHEA second cycle degree or diploma compatible.
Name and level of intermediate	Postgraduate Diploma
awards:	Postgraduate Certificate
Awarding body/institution:	University of Westminster
Teaching Institution:	University of Westminster
Status of awarding body/institution:	Recognised Body
Location of delivery:	Marylebone Campus
Language of delivery and assessment:	English
Mode, length of study and normal starting month:	Part time (evening) and full time; blended learning
Professional statutory or regulatory	Royal Institution of Chartered Surveyors
body:	(RICS)
	Chartered Institute of Building (CIOB)
	(Both subject to accreditation)
Date of course validation/review:	2014
Date of programme specification	2014-15
approval:	
Course Leader:	Malcolm Smith
Course URL:	westminster.ac.uk/courses/postgraduate
Westminster Course Code:	
JACS code:	
UKPASS code:	

Admissions requirements

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

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: <u>westminster.ac.uk/courses/postgraduate/how-to-apply</u>

Aims of the course

The Building Information Management philosophy reflects the future environment of project delivery that is digital, multi-disciplinary and integrated. This allows prototyping, simulation, costing, planning, design, production and operation through information management & modelling.

The future construction professional will require a knowledge and understanding of Building Information Management and Integrated Practice from the inception of the project. This is achieved through collaborative working and co-ordinated information exchange that will increase the efficiency and effectiveness of project delivery and asset performance. This approach encompasses a strategic view of project delivery from both the demand side (Client) and supply side (consultants, contractors and suppliers)

The MSc in Building Information Management is mainly aimed at graduates who are already in construction-related employment and who aspire to senior positions in their field. The programme aims to provide a challenging, stimulating and professionally relevant course of study which is directly related to the effective management of construction projects.

The design of the programme recognises the significant challenges of combining postgraduate-level study with full time professional employment. The programme aims to offer learners flexible access to the core content, whilst still providing the discipline and structure of regular attendance at the University. This is achieved through the use of a 'blended learning' approach.

Specifically, the programme aims to provide:

- A critical awareness of the importance of construction projects to clients and the context and constraints within which project information is managed for the delivery of projects.
- Knowledge and understanding of the theories, concepts, principles and techniques associated with the implementation and management of information and project teams.
- High level intellectual and practical skills required for the successful management of information and project teams.
- Experience in the planning and implementation of a personal research project related to construction management and the subsequent writing up of research findings in a dissertation.
- Opportunities for personal and professional development and enhancement of lifelong learning skills within a structured framework.

Building Information Management (BIM) is critical to successful delivery and asset management of the project from inception to decommissioning. The principles of BIM are embedded in all of the modules and are continually contextualise and informed by current best practice to ensure the course aims and learning outcomes are aligned to meet the needs of practicing construction professionals. To ensure the validity of the award the course team are actively involved in research within the construction industry, which informs the modules. To ensure the distinction of the course from the other pathways students, progressing to masters level, will undertake a project that is related to the areas of BIM.

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 course is aimed at graduates who are already in construction-related employment. The course has been designed to be professionally relevant and to produce postgraduates who:

- are well rounded;
- can communicate with people at all levels;
- are adaptable;
- have inquiring minds;
- are critical thinkers;
- have good research skills;
- are innovative.

Thus, successful completion of the course should enhance graduates' career prospects and help them to achieve their aspirations of senior positions in the field of Construction management. The attributes detailed above will also provide evidence of a commitment to lifelong learning and continuing professional development. Those wishing to continue their academic studies will have an excellent grounding for doctoral level research, or a career in academia.

The design of the course meets employers' expectations in terms of postgraduates who have well developed intellectual skills and highly relevant professional knowledge and skills.

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

On successful completion of the MSc in Building Information Management the learner is expected to:

- KU1 Critically determine the setting within which construction projects are completed, with reference to the environment whether economic, corporate or regulatory.
- KU2 Define the role construction projects play within client organisations and the positive contribution that information can make in this context.
- KU3 Articulate theories, concepts and principles which underpin the effective management of construction projects.
- KU4 Establish techniques to allow the management of information, and promote the integration of project teams and collaboration when managing people.

Specific skills

On successful completion of the MSc in Building Information Management the learner is expected to:

- SS1 Break down complex information management problems, identify the relationship between the constituent parts, and effectively communicate the outcome. (Analysis)
- SS2 Combine information and ideas from a variety of traditional, contemporary and cutting-edge sources to develop innovative solutions to construction information management problems. (Synthesis)
- SS3 Critically evaluate evidence from both academic research and professional practice and demonstrate reasoning in the construction of arguments. (Evaluation)
- SS4 Utilise management skills, techniques, and systems to successfully deliver a construction project, whilst meeting the requirements of the client within the constraints of the external environment. (Technical expertise)
- SS5 Demonstrate initiative in the decision-making and problem-solving processes associated with complex and unpredictable situations typically encountered on construction projects. (Application)
- SS6 Demonstrate independence of thought and personal responsibility in the exercise of construction management skills. (Autonomy)

Key transferable skills

On successful completion of the MSc in Building Information Management the learner is expected to:

- TS1 Communicate complex academic and professional ideas and concepts in written, graphical and oral formats as appropriate. Convey information clearly and succinctly to specialist and non-specialist audiences.
- TS2 Work effectively in a group, either as a leader or a group member. Use interpersonal skills to negotiate and prioritise group tasks, making optimum use of the capacities of group members. Deal confidently with tensions and conflict.
- TS3 Make use of a wide range of information sources and learning resources, including traditional library resources, web-based resources, software, electronic media and audio-visual resources. Manage the retrieval and organisation of information efficiently and effectively.
- TS4 Articulate research problems and design and implement appropriate research methodologies. Undertake the research process independently and competently.
- TS5 Take full responsibility for their own learning as independent and selfcritical learners. Reflect on their academic and professional practice and demonstrate commitment to personal and professional development and the concept of lifelong learning.

Learning, teaching and assessment methods

The approach to teaching, learning and assessment is founded on the principle of **blended learning** in which both the <u>mode of delivery</u> and the <u>model of teaching and learning</u> are blended.

Learning & Teaching

Blended mode of delivery

The mode of delivery recognises the significant challenges of combining postgraduatelevel study with full time professional employment. The blended learning approach adopted aims to combine some of the benefits of a traditional taught course, with the flexibility afforded by technology-enhanced delivery.

Web-based technology is fully exploited to ensure that students have flexible access to course materials and can interact with other students and with staff. The University's virtual learning environment (VLE), known as Blackboard, is the main platform through which students have access to course resources. Blackboard acts both as a repository for course materials and a gateway to various means of electronic interaction. The core material which forms the 'knowledge base' for the modules will be available electronically. This may take the form of electronic documents stored on Blackboard, and online lectures, including video lectures and presentations with voiceovers. Web-based technology is also exploited to enable students to interact with tutors and with other students in real time. Thus, online tutorials can be facilitated by academic staff with students in remote locations.

Students have access to a vast range of electronic resources via the University's library search engine. This enables students to access e-books, e-journals and a multitude of online databases from any location. Web 2.0 technologies such as blogs, wikis, podcasts, are also exploited to enable students to feel connected to the course without having to be physically present at the University.

The web-based delivery techniques outlined above provide students with great flexibility in the way in which they interact with their course. However, the programme is not a distance learning programme. Students will still be required to attend University regularly, but this will be limited to one evening per week during the teaching semesters. Since the core material of the course is delivered through web- based media, when students do attend the University there is no need for a systematic lecture programme. The face-toface contact sessions with students are therefore used much more effectively for discussions, exercises, group work, tutorials, guest speakers and activities which actively engage the students in the learning process.

Blended model of teaching and learning

As with virtually all academic disciplines it is accepted that a basic knowledge of fundamental concepts and vocabulary has to be acquired by the student simply to communicate. In this course, students will acquire the basic knowledge primarily via the online resources referred to above, supplemented by their own personal research. However, the acquisition of that knowledge will not be adequate to develop in students the high level intellectual skills appropriate to a postgraduate level course. Hence, in the blended learning approach extensive use is made of a concept known as enquiry-based learning.

In the enquiry-based learning approach students actively engage with complex scenarios which are open-ended and allow a variety of responses or solutions. Students determine the lines of enquiry and the methods employed, and the enquiry requires students to draw on existing knowledge and identify their required learning needs.

Tutors effectively act as facilitators providing guidance and encouragement to students. Students work collaboratively and use the extensive resources available to them to research the problems presented in the scenario. It is up to students to identify the key issues and the questions which need to be asked.

The learning process is thus highly student-centred, with the students effectively taking responsibility for what and how they learn. The scenarios are carefully designed so that there is no single correct answer and indeed, many alternative responses may be acceptable. Students gain a much deeper understanding of the material through their interaction with the scenario, and the knowledge they gain is more likely to be retained because it has been acquired by experience. Furthermore, their high level intellectual skills such as analysis, synthesis and evaluation are developed, as are the skills they need to tackle complex problems in real life.

Assessment

Assessment for the course is based primarily on coursework. In some modules tests are used to confirm knowledge and understanding of core concepts. In modules where enquiry-based learning is used, the scenarios adopted will provide the vehicles for the coursework. For the dissertation module, the assessment is based on an individual piece of research conducted by the student and culminating in the submission of a dissertation.

In broad terms, the assessment strategies adopted on the course will require students to provide evidence of the following:

- Analysis have key concepts been understood and the relationship between them articulated?
- Integration of theory and practice has evidence from both academic research and professional practice been effectively related to each other, and have theoretical concepts been appropriately applied to practical situations?
- Critical thinking has information been used in a critical way rather than simply reproduced and accepted as fact?

Module code	Module title	Status	UK credit	ECTS
7CNMN011W	Procurement	Core	20	10
7CNMN009W	Economics of the Construction Industry	Core	20	10
7CNMN013W	Risk Management for Projects	Core	20	10
7CNMN007W	Corporate Management	Core	20	10
7CNMN004W	Postgraduate Construction Dissertation or work related project.	Core	40	20
7CNMN002W	Building Information Management & Integrated Practice	Core	40	20
7CNMN006W	Construction Project Planning	Option	20	10
7CNMN008W	Developing Effective Project Teams	Option	20	10
7CNMN001W	Building Design Management	Option	20	10

Course structure

Any other 20 credit (UK credits) Level 7 core module from the Faculty of Architecture and the Built Environment can also be taken as an option module.

One option module to be taken.

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

Academic regulations

The current Handbook of Academic Regulations is available at <u>westminster.ac.uk/academic-regulations</u>

How will you be supported in your studies?

Course Management

The MSc Building Information Management course is managed by the Postgraduate Construction Programme Leader. The Postgraduate Construction Programme is located within the Department of Property & Construction, one of three departments in the Faculty of Architecture and the Built Environment. The Programme Leader reports to the Head of Department, who in turn reports to the Dean of Faculty.

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 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 and other students

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.

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 Faculty. Students can also securely connect their own laptops and mobile devices to the University wireless network.

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 2014. 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.

¹ Students enrolled at Collaborative partners may have differing access due to licence agreements.

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 Postgraduate Taught Experience Survey or PTES which helps us compare how we are doing with other institutions, to make changes that will improve what we do in future and to keep doing the things that you value.

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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