



MSc Building Information Management (BIM)

Programme Specification

Primary Purpose

Course management and quality assurance.

Secondary Purpose

Detailed information for students, staff and employers. Current students should refer to the related Course Handbook for further detail.

Disclaimer

The University of Portsmouth has checked the information given in this Programme Specification. We will endeavour to deliver the course in keeping with this Programme Specification; however, changes may sometimes be required arising from annual monitoring, student feedback, review and update of units and courses. Where this activity leads to significant changes to units and courses, there will be prior consultation of students and others, wherever possible, and the University will take all reasonable steps to minimize disruption to students. It is also possible that the University may not be able to offer a unit or course for reasons outside of its control, for example; the absence of a member of staff or low student registration numbers. Where this is the case, the University will endeavour to inform applicants and students as soon as possible. Where appropriate, the University will facilitate the transfer of affected students to another suitable course.

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Course Details

1. Named Awards

MSc Building Information Management (BIM)

2. Course Code (and UCAS Code if applicable)

C2657F/P

3. Awarding Body

University of Portsmouth

4. Teaching Institution

University of Portsmouth

5. Accrediting Body

N/A

6. QAA Benchmark Groups

Construction, Property and Surveying.

7. Document Control Information

July 2018

8. Effective Session

2018-2019

9. Authors

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10. Faculty

Technology

11. Department

School of Civil Engineering and Surveying

Curriculum

12. Educational Aims

- Responds to an urgent need for Architectural, Engineering, and Construction (AEC) industry specialists, seeking to develop skills in the theory and practice of BIM.
- Proposes a new curriculum, designed to address this shortcoming and aims to allow for students to develop skills, knowledge and understanding in BIM, including both the theoretical and practical implications of such a method of working, and to facilitate the development of research skills to enable further individual specific research enquiry.

13. Reference Points

The proposed course aims to simulate the real-life working environment by enabling collaboration amongst different stakeholders. Moreover, it aims to attract students with different backgrounds, i.e. construction management, architecture, civil engineering, quantity surveying, operation/project management, different backgrounds in engineering, etc. Hence, the nature of the proposed interdisciplinary course is to reach to a wider range of students without the prerequisite of having an in-depth knowledge in the field. Following is the list of reference points considered during the development of the course:

- The scholarship, sector experience and research expertise of academic members of staff
- University of Portsmouth Curricula Framework Document (2012)
- QAA UK Quality Code for Higher Education
- Framework for Higher Education Qualifications (FHEQ) National Qualifications Framework
- Construction, Property and Surveying QAA Subject Benchmark Statements
- RICS Policy and Guidance on University Partnerships

14. General Learning Outcomes

Students will develop taught and research skills in the theoretical and practical BIM implications in order to engage with AEC industry practices, developers, government organisations, and academic positions. During these courses, students develop skills in BIM (theory and practice), and graduates will become BIM strategists to address the AEC industry requirements regarding BIM implementation. The goal of these courses is not merely software training, rather, it aims to explore the concepts and acquire appropriate expertise in BIM implementation (considering BIM adoption and methods).

15. Learning Outcomes

A. Knowledge and Understanding of:

- A.1 Learn a holistic approach to AEC projects using state-of-the-art BIM software.
- A.2 Learn from industrial guest lecturers from leading companies in the practical implementation of BIM, as well as meetings, conferences, and seminars holding by the University of Portsmouth. This will help students establish relevant contacts and links to the industry.
- A.3 Work on an individual research project allowing students to develop specific skills and knowledge tailored to their chosen career path. They will receive full training in appropriate research methods.

B. Cognitive (Intellectual or Thinking) Skills, able to:

- B.1 Demonstration of a comprehensive understanding of the techniques and methods available for research (suitable to level 7).
- B.2 Capability to critically document, scrutinise, evaluate, and present on BIM area from a given AEC project (suitable to level 7).
- B.3 Development of a thorough knowledge of BIM (theory and practice) and its application within the AEC industry.
- B.4 Ability to collaborate with an AEC professional in a chosen field and research.

C. Practical (Professional or Subject) Skills, able to:

- C.1 Apply the design process to enable the selection of appropriate processes.
- C.2 Communicate technical information in a lucid manner to both management and technical staff.
- C.3 Think creatively in order to develop design and analytical solutions.

D. Transferable (Graduate and Employability) Skills, able to:

- D.1 Communicate effectively in writing, speaking and in appropriate forms of presentation.
- D.2 Read and understand documents related to AEC projects and BIM software packages.

- D.3 Use information technology to handle data.
- D.4 Assess problem domains and formulate appropriate problem solving strategies.
- D.5 Collaborate in teams to achieve goals and develop projects.

16. Learning and Teaching Strategies and Methods

In general within the context of the identified programme learning outcomes, the knowledge will be gained through a mixture of formal lectures and tutorials, group work, practical projects, and individual research (Dissertation).

17. Assessment Strategy

The line between research concept and viable commercial tool has been crossed by BIM technology. Therefore, level 7 students should show a professional approach to work and research, and demonstrate that they have: developed independence of thought; a high level of intellectual rigour and consistency; excellent academic/ intellectual skills; considerable creativity and originality; and excellent research skills. A variety of assessment styles are used in different units, however, in general, assessment of the levels of theoretical knowledge and understanding will be both through formative and summative assessment, consisting of a combination of dissertations, coursework assignments, portfolios, and formal examinations.

Assessment is both formative and summative. Testing of core knowledge is through a mix of design, modelling, and management portfolios, examinations, and assignments. Transferable and key skills will not be separately assessed, but must necessarily be employed to achieve the learning outcomes in the course units. Skills will be enhanced by feedback from lectures and tutorials. Practical skills are assessed in coursework and supervised work sessions, through which students need to demonstrate the ability to reflect on the work, not simply report it. The assessments are designed to allow appraisal of skill, and for the students to demonstrate a wider contextual understanding of what they are doing. Ethical considerations are often directly assessed in units. Instructor-led lectures supported by practical activities in the form of computer-based tutorials provide an opportunity to demonstrate effective professional skills, working in teams (characteristic of many areas of the AEC industry), communicating, and reporting. The Dissertation is the opportunity for students to draw together skills and knowledge acquired from different taught units, and use them to develop an independent research project. After successful completion of all unit assessments, students should be able to conceive, plan, manage, implement, and present a substantive AEC project with breadth and scope in commensurate with a Master of Science award.

18. Course Structure, Progression and Award Requirements

The one-year MSc programme for full-time students and two-year for part-time students consists of 30 credit point units, where 30 credits represent 300 hours of study time and includes up to 48 hours of time-tabled activities. The course offers a total 180 credits. A Postgraduate Diploma exit award requires 120 credits. A Postgraduate Certificate exit award requires 60 credits from the taught units. The individual project may be undertaken at the University.

Following table shows the course structure:

Year	Teaching Block	Unit Code	Unit Description	Short Name	Credits	Level	Unit Dept	Type	Final Project
MSc Building Information Management (BIM) - Full Time									
1	Year	U25234	BIM Theory and Practice	U25234	30	7	SCES	C	
1	Year	U25235	Integrated BIM Projects and Corporate Management	U25235	30	7	SCES	C	
1	Year	U25236	Modelling and Interoperability in the BIM Environment	U25236	30	7	SCES	C	
1	Year	U22408	Strategic and General Management	S&GMAN	30	7	SCES	C	
1	Year	U22983	Dissertation	DISS	60	7	SCES	C	Y
1	Year	U25237	Personal Tutorials (MSBIM)	U25237	0	7	SCES	C	
MSc Building Information Management (BIM) - Part Time									
1	Year	U25234	BIM Theory and Practice	U25234	30	7	SCES	C	
2	Year	U25235	Integrated BIM Projects and Corporate Management	U25235	30	7	SCES	C	
1	Year	U25236	Modelling and Interoperability in the BIM Environment	U25236	30	7	SCES	C	
2	Year	U22408	Strategic and General Management	S&GMAN	30	7	SCES	C	
1&2	Year	U22983	Dissertation	DISS	60	7	SCES	C	Y
1&2	Year	U25237	Personal Tutorials (MSBIM)	U25237	0	7	SCES	C	

19. Employability Statement

MSc BIM will support progression into further research or an academic career. BIM professionals who pursue careers in large or small businesses and in the public sector, can expect to work in roles such as BIM coordinator/strategists, project managers, consultants, and technicians. Our postgraduate courses in Quantity Surveying and Property Development are accredited by the Royal Institution of Chartered Surveyors (RICS). This course will also be submitted for accreditation once fully established (meeting has already arranged in June).

Moreover, students will benefit from SCES strong links with both architecture, engineering and construction industry and professions. BIM is a new and valuable skill to many employers, and graduates from this course are highly sought after. This course also provides students with the skills and knowledge to support employability in a range of professional roles in the built environment, both in the UK and internationally.

Course Management

20. Support for Student Learning

- The Course is managed by a Course Leader

- Collaborative programmes are managed on a day-to-day basis by the University Contact who may or may not be the Course Leader
- The Combined Honours Degree is managed by a Course Leader from one subject area and a Deputy Course Leader from the other
- Extensive induction programme introduces the student to the University and their course
- Each student has a personal tutor, responsible for pastoral support and guidance
- University support services include careers, financial advice, housing and counselling
- The Academic Skills Unit (ASK)
- The Additional Support and Disability Advice Centre (ASDAC)
- Excellent library facilities
- Student course and unit handbooks provide information about the course structure and University regulations
- Feedback is provided for all assessments
- Personal Development Planning (PDP) for all awards

21. Admissions Criteria

A. Academic Admissions Criteria

Standard University rules apply and this will normally mean that candidates are in possession of an honours degree with at least a classification of 2.2 or equivalent in a technical or analytical discipline (Architecture, Construction Management, Mechanical/Electrical Engineering, Civil, Surveying, and Project Management). All other qualifications or experience presented must be forwarded to the Admissions Tutor for a University of Portsmouth decision. English language proficiency at a minimum of IELTS band 6.0 with no component score below 5.5.

B. Disability

The University makes no distinction in its admissions policy with regard to disability and will endeavour to make all reasonable adjustments in order to make it possible for students to study at Portsmouth on a course of their choice.

22. Evaluation and Enhancement of Standards and Quality in Learning and Teaching

A. Mechanisms for Review and Evaluation

- Course Leader's Annual Standards and Quality Evaluative Review
- Head of Department's Annual Standards and Quality Evaluative Review
- Unit and Course Level student feedback considered at Board of Studies
- Unit Assessment Board consideration of student performance for each programme
- Annual Standards and Quality Reports to Board of Studies, including consideration of Subject and Award External Examiner Reports
- Periodic Programme Review
- Student Representatives and Student/Staff Consultative Committees
- National Student Survey
- National Postgraduate Taught Experience Survey
- Staff Performance and Development Review
- Peer Review and Development Framework
- Faculty Learning and Teaching Committee

B. Responsibilities for Monitoring and Evaluation

- Unit Co-ordinators for unit content and delivery

- Course Leader for day-to-day running of course
- Deputy Course Leader for day-to-day running of Combined Honours route
- University Academic Contact for day-to-day running of course
- Partner Institution Academic Contact
- Board of Studies with overall responsibilities for operation and content of course
- Combined Honours Management Board
- Head of Department
- Associate Dean (Academic)
- Associate Dean (Students)
- Quality Assurance Committee
- Unit, Award and Progression Board of Examiners

C. Mechanisms for Gaining Student Feedback

- Student Representation on Board of Studies
- Student Staff Consultative Committees
- Unit and Course level student feedback questionnaires
- University participates in external student surveys, e.g. National Student Survey (NSS), Postgraduate Taught Experience Survey (PTES), Postgraduate Research Experience Survey (PRES) and International Student Barometer (ISB)

D. Staff Development Priorities

- Academic staff undertake activities related to research, scholarship, teaching and learning and student support and guidance
- Annual staff performance and development reviews match development to needs
- Managers undertake a variety of management development programmes
- New academic staff required to undertake appropriate University of Portsmouth learning and teaching programmes
- All academic staff encouraged to seek Higher Education Academy membership
- Academic staff undertake initial and continuing professional development within the Academic Professional Excellence Framework (APEX) programme which is aligned with the Higher Education Academy (HEA)'s UK Professional Standards Framework (UKPSF)
- Support staff are encouraged to attend short courses in areas such as minute taking, and specific IT packages

23. Assessment Regulations

The current University of Portsmouth academic regulations will apply to this programme (see [Assessment and Regulations¹](#)).

24. Role of Externals

Subject External Examiners who will:

- Oversee unit assessment and usually attend Unit Assessment Boards
- Review unit assessment strategy
- Sample assessment artefacts
- Present report to Unit Assessment Boards

Award External Examiners (usually also a Subject External Examiner) who will:

¹ www.port.ac.uk/departments/services/academicregistry/qualitymanagementdivision/assessmentandregulations/

- Oversee and attend Award/Progression Boards
- Scrutinise and endorse the outcomes of assessment
- Ensure that the standard of the award is maintained at a level comparable with that of similar awards elsewhere in the United Kingdom

25. Indicators of Standards and Quality

A. Professional Accreditation/Recognition

None at present.

B. Periodic Programme Review (or equivalent)

A new programme, not yet subject to periodic review.

C. Quality Assurance Agency

QAA Higher Education Review, March 2015, judgements about standards and quality meet UK expectations (see [Higher Education Review of the University of Portsmouth, March 2015²](#)).

D. Others

None.

26. Further Information

Further information may be found in:

- Student Handbook
- University of Portsmouth Curriculum Framework Document
- University of Portsmouth Prospectus
- [University of Portsmouth³](#) and [School/Department⁴](#) websites

² http://www.qaa.ac.uk/docs/qaa/reports/university-of-portsmouth-her-15.pdf?sfvrsn=5071f581_4

³ www.port.ac.uk/

⁴ www.port.ac.uk/aboutus/