Plymouth University

Faculty of Arts

School of Architecture, Design and Environment

Programme Specification

BSc (Hons) Construction Management and the Environment

Approved by Minor change 12/11/14
1. **BSc (Hons) Construction Management and the Environment**

<table>
<thead>
<tr>
<th>Final award title</th>
<th>BSc (Hons) Construction Management and the Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level H</td>
<td></td>
</tr>
<tr>
<td>Intermediate award title(s)</td>
<td>BSc Construction Management and the Environment (on satisfactory completion of 80 Stage 3 credits)</td>
</tr>
<tr>
<td>Level I</td>
<td>Diploma of Higher Education (on satisfactory completion of Stage 2)</td>
</tr>
<tr>
<td>Intermediate award title(s)</td>
<td>Certificate of Higher Education (on satisfactory completion of Stage 1)</td>
</tr>
<tr>
<td>Level C</td>
<td></td>
</tr>
<tr>
<td>Awarding institution</td>
<td>University of Plymouth</td>
</tr>
<tr>
<td>Teaching institution</td>
<td>University of Plymouth</td>
</tr>
<tr>
<td>Accrediting body</td>
<td>Chartered Institute of Building (CIOB), Chartered Associated of Building Engineers (CABE)</td>
</tr>
<tr>
<td>Appropriate benchmark(s)</td>
<td>Built Environment</td>
</tr>
<tr>
<td>UCAS code</td>
<td>K255</td>
</tr>
<tr>
<td>JACS code</td>
<td>K220</td>
</tr>
</tbody>
</table>

This Programme Specification details how and where the skills and other outcomes are delivered in this programme. A mapping education of key skills is employed by the CIOB. This mapping provides a measure of relevant skills addressed across the modules within the C.I.B. framework.

2. **Distinctive Features of the Programme and the Student Experience**

2.1. **Background**

The Environmental Building programmes have been running, at the time of writing, for over 15 years. These programmes include BSc (Hons) Construction Management and the Environment and BSc (Hons) Building Surveying and the Environment. The programmes were originally conceived as part of an educational need driven by the Toyne Report and the growing environmental awareness evidenced by the interest of the Royal Institution of Chartered Surveyors and the Chartered Institute of Building.
Various updates have previous been introduced in 2001, 2008-9 and 2014 after course reviews. A more exhaustive review was applied in 2015 to adapt the courses to the Curriculum Enrichment Project (CEP) driven by the University.

2.2. Programme features

The distinctive features of the BSc (Hons) Construction Management and the Environment programme provide students with an inspiring, enriching and professional experience, preparing them for a successful career as graduates.

The distinctive features of this programme focuses around the degree’s industrial context, its professional accreditations, optional placement period and its environmental theme. This environmental themes is integrated in all taught modules and project, and enables the students guide the future construction industry, meeting the stricter environmental and energy based legislation. Broadening activities, such as guest lectures, are also introduced in the programme to enhance learner awareness of global environmental and sustainability issues.

The programmes are all designed around a common first year and then diverge in the focus of their provision, offering optional modules, specialist project modules and tailored dissertations modules in the second and final years.

Other distinctive features include:

- **Professional Accreditation:** The course is fully accredited by the leading professional bodies recognised for construction managers including the Chartered Institute of Building (CIOB) and the Charted Association of Building Engineers (CABE).

- **Inspiring Teaching:** The programme is taught by staff with both an industry and research background. Teaching is also supported by industry professionals and an extensive programme of UK and international visiting speakers.

- **Industry placement year:** Students of this programme have the opportunity to get experience in the construction industry and increase their future employability in the sector with a paid placement following their second year. The optional year-long placement is with a leading construction company in the UK or abroad and allows the students to experience a professional construction environment. Students receive advice and
guidance to arrange their own placement, and support from the academic staff to ensure that they are receiving a valuable learning opportunity.

- **Site visits:** Off campus, students also enrich their learning with industry experience both within the UK and abroad, through site visits and international field trips.

- **Research-informed learning:** The academic staff are also researchers, allowing the latest research findings to be delivered directly to the students. The research covers a broad range of specialist areas, including: construction management, building performance analysis, thermography, construction economics, and sustainability values.

- **Industry Links:** The department sustains good links with many of the leading construction companies in the UK. Industry professionals play an active role in the programme, by participating in guest lectures, workshops and tutorials. These provide opportunities for work-placements to individual students and future employability opportunities.

- **Multidisciplinary Learning Environment:** During the degree, students from this programme benefit from working in multidisciplinary groups with students from other programmes in the School of Architecture, Design and Environment, including BSc (Hons) Building Surveying, BA (Hons) Architectural Technology and BA (hons) Architecture, replicating a realistic working environment in construction projects.

- **Real assessments:** The course is designed to prepare students for their future career. The assessments reflect the varied world of work, a mixture of coursework, project work, site visit reports, examinations, and presentations. Students work on industry led group projects with real project briefs and clients, and they benefit from guidance from a panel of industrial advisers, which help them to develop the professional skills and networking necessary to successfully progress in the sector.

3. **Relevant QAA Subject Benchmark Group(s)**

Construction, property and surveying, 2008

4. Programme Structure

The duration of the programme is either 6 semesters (3 years), or 8 semesters (4 years) if students undertake an optional industry placement year of 48 weeks, which occurs between Stage 2 and Stage 3 of the programme.

A Stage is equivalent to one year of study for a full time student. Each Stage consists of two semesters. Students are required to complete modules amounting 60 credits per semester, thus 120 credits in total. An outline programme structure, modules, and credits are presented in Table 1-4.

Stage 1 is a common year for BSc (Hons) Construction Management and the Environment and BSc (Hons) Building Surveying and the Environment programmes. Stage 2 and 3 of the programme includes specialism modules.

Students are expected to pass all modules in order to progress. No optional modules exist, with the exception of the industrial placement.

Pass requirement for each module: 40% (≥ 35% in coursework and examination elements). Compensation is permitted in accordance with University of Plymouth regulations, except where relevant accrediting body’s guidelines state otherwise.

**Stage 1 (Level 4) BSc Construction Management and the Environment**

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit</th>
<th>Semester</th>
<th>Status</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLDG401</td>
<td>Fundamentals of Construction</td>
<td>20</td>
<td>Semester 1</td>
<td>Core</td>
<td>20% Test 80% Coursework</td>
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<tr>
<td>CIVL102</td>
<td>Construction Materials and Site Surveying</td>
<td>20</td>
<td>Semester 1</td>
<td>Core</td>
<td>50% Test 50% Coursework</td>
</tr>
<tr>
<td>BLDG402</td>
<td>Principles of Economics and Management</td>
<td>20</td>
<td>Semester 1</td>
<td>Core</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>BLDG404 PP</td>
<td>ICT for Architecture and Construction Projects</td>
<td>20</td>
<td>Semester 2</td>
<td>Core</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>BLDG403</td>
<td>Building Science and Services</td>
<td>20</td>
<td>Semester 2</td>
<td>Core</td>
<td>50% Examination 50% Coursework</td>
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<tr>
<td>ATE402</td>
<td>Design Praxis and Technology</td>
<td>20</td>
<td>Semester 2</td>
<td>Core</td>
<td>100% Coursework</td>
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### Stage 2 (Level 5) BSc Construction Management and the Environment

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit</th>
<th>Semester</th>
<th>Status</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>BLDG501</td>
<td>Technology of Large and Innovative Buildings</td>
<td>20</td>
<td>Semester 1</td>
<td>Core Compensatable</td>
<td>50% Examination, 50% Coursework</td>
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<tr>
<td>BLDG502</td>
<td>Property development and refurbishment</td>
<td>20</td>
<td>Semester 1</td>
<td>Core Compensatable</td>
<td>50% Examination, 50% Coursework</td>
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<tr>
<td>BLDG503</td>
<td>Construction Management Processes and Principles</td>
<td>20</td>
<td>Semester 1</td>
<td>Core Non Compensatable</td>
<td>100% Coursework</td>
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<tr>
<td>BLDG505</td>
<td>Building Services Engineering</td>
<td>20</td>
<td>Semester 2</td>
<td>Core Compensatable</td>
<td>50% Examination, 50% Coursework</td>
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<tr>
<td>BLDG506</td>
<td>Contract Procedures</td>
<td>20</td>
<td>Semester 2</td>
<td>Core Compensatable</td>
<td>50% Examination, 50% Coursework</td>
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<tr>
<td>ATE502</td>
<td>Integrated Design 2</td>
<td>20</td>
<td>Semester 2</td>
<td>Core Compensatable</td>
<td>100% Coursework</td>
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</table>

### Optional Industry Placement BSc Construction Management and the Environment

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>FAPY602</td>
<td>Building Surveying and Construction Management Placement</td>
<td>N/A</td>
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### Stage 3 (Level 6) BSc Construction Management and the Environment

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit</th>
<th>Semester</th>
<th>Status</th>
<th>Assessment</th>
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</thead>
<tbody>
<tr>
<td>BLDG601</td>
<td>Research Methods in the Built Environment</td>
<td>20</td>
<td>Semester 1</td>
<td>Core Compensatable</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>BLDG602</td>
<td>Dissertation Project</td>
<td>20</td>
<td>Semester 2</td>
<td>Core Compensatable</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>BLDG603</td>
<td>Sustainable and Safe Construction</td>
<td>20</td>
<td>Semester 1</td>
<td>Core Compensatable</td>
<td>50% Examination, 50% Coursework</td>
</tr>
<tr>
<td>BLDG604</td>
<td>Building and Property Law</td>
<td>20</td>
<td>Semester 1</td>
<td>Core Compensatable</td>
<td>50% Examination, 50% Coursework</td>
</tr>
<tr>
<td>BLDG605</td>
<td>Multidisciplinary Project 3</td>
<td>20</td>
<td>Semester 2</td>
<td>Core Compensatable</td>
<td>100% Coursework</td>
</tr>
<tr>
<td>BLDG606</td>
<td>Construction Management Professional Practice</td>
<td>20</td>
<td>Semester 2</td>
<td>Core Non Compensatable</td>
<td>50% Examination, 50% Coursework</td>
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</tbody>
</table>
5. Programme Aims

5.1. University Plymouth 'Building' subject aims

The educational aims of this programme are congruent with the ‘Building’ subject aims at the University of Plymouth which are to:

- Develop and deliver a professionally relevant range of education programmes in the built environment field.
- Deliver distinctive programmes, through a range of teaching and assessment methods relevant to employment and further study.
- Operate an access framework which provides students with opportunities to maximise their potential, subject to the constraints imposed by relevant professional bodies.

5.2. Professional aim

This programme aims to provide graduates with the flexibility to progress into a professional career in Construction Management.

The programme aims to achieve accredited status from the Chartered Institute of Building (CIOB) and the Chartered Association of Building Engineers (CABE), and/or other relevant professional bodies. The undergraduate outcomes are designed to nurture the ethos of a Chartered Construction Manager or other chartered construction professional with a particular focus on the development of Construction Management knowledge and skills.

The specific aims of this honours degree are for students to demonstrate:

- Ability to apply knowledge and understanding in a broad range of technical, scientific, academic and professional subjects.
- A potential to progress to professionally based employment and/or further academic study.
- An appreciation of the role of construction in society and the environmental aspects of construction.
- Appropriate knowledge of construction and general management.
- A range of key skills and subject specific competencies in preparation for employment.
6. Programme Intended Learning Outcomes

6.1. Knowledge and understanding

On successful completion graduates should have developed:

LO1. The fundamental concepts, principles and theories of construction and related technology.

LO2. A comprehensive understanding of the construction industry.

LO3. Detailed knowledge and understanding of essential facts, concepts, principles and theories related to construction management.

LO4. The professional and ethical responsibilities of construction managers.

These subjects are progressively acquired throughout the programme by students developing and applying research, analytical and evaluative skills. Activities undertaken commence in induction (information retrieval / study skills) and develop through the undertaking of set and self-chosen research essays, reports, portfolios of research, a poster, the provision of papers culminating in the final year Dissertation. Achievement is measured through assessed course work, examinations and presentations.

6.2. Cognitive and intellectual skills

On successful completion graduates should be able to:

LO1. Apply appropriate knowledge and skills to solve problems.

LO2. Recognise and analyse criteria and specifications appropriate to specific construction problems, and plan strategies for their solution.

LO3. Take a holistic approach to solving construction management related problems applying professional judgement to balance risks, costs and benefits.

LO4. Critically evaluate a range of possible built environment related issues and evidence to support conclusions and recommendations.
Evaluative skill development commences at Level 1 through research application activities, interactive workshops, tutorials and discussion groups. Development continues through all levels with increasing rigour.

Staff measure the quality of this skill through specific assessment criteria in course work applications such as the production of research papers, seminars and the Dissertation.

The development of effective group and inter-personal skills is a feature of this programme achieved through formal and informal group working assignments and professional projects as well as in-class workshops. Students are taught elements of group work in a number of modules and have the opportunity to practice the skills in their major professional projects. Occasional peer review also provides an opportunity for reflection on team skills and dynamics.

6.3. **Key and transferable skills**

On successful completion graduates should have developed the ability to:

- **LO1.** Communicate effectively in writing and verbally.
- **LO2.** Manage resources and time.
- **LO3.** Critique and self-evaluate.
- **LO4.** Work both autonomously and as part of a team when required.
- **LO5.** Discuss and debate construction management related problems.
- **LO6.** Learn effectively for the purpose of continuing professional development and in a wider context throughout their career.
- **LO7.** To evaluate professional decisions in a sustainability context.

Analytical skills are developed through the analysis of data obtained through laboratory work, management analysis and in-class workshops. The achievement of these skills is demonstrated through the assessment programme involving reports, presentations and examinations.

Creativity on this programme is enhanced and developed through a range of design based activities such as the production of posters, the design of aspects of management related activities focused upon buildings, the production of exhibitions of work and within in-class workshop activities such as sketching, and detailing.
Synthesis skills are achieved within project and 'taught' modules by students utilising a range of theories to develop and respond to hypotheses (e.g. Dissertation) and design problems (e.g. Project schemes).

Numeracy and statistical analysis is practised and developed in a range of other modules including Science (laboratory analysis), Quantity Surveying related tasks, Site Surveying and the Dissertation.

Psychomotor skills are progressed through the utilisation of IT and the use of surveying equipment, laboratory work, project work, model making and preparing for presentations to employers.

6.4. Employment related skills

On successful completion graduates should have developed:

- **LO1.** Initiative and personal responsibility.
- **LO2.** Effective communication and debating skills.
- **LO3.** The ability to make decisions based on in-complete information.

Self-appraisal is also considered a 'professional' skill by key professional bodies. Self-reflection is encouraged at all levels, where students can reflect both on their strengths and weaknesses. This commences in the Level 1 induction within a reflective study skills session and culminates in the final year professional project where self-reflection forms an element of the assessment criteria.

Students encounter basic sketching and CAD skills at Level 1 and continue to develop their competence throughout the other levels. Assessments at all levels include criteria relating to graphical skills in project and other modules.

6.5. Practical skills

On successful completion graduates should have developed:

- **LO1.** The ability to undertake basic land surveying skills.
- **LO2.** Prepare technical reports.
- **LO3.** Give technical presentations.
- **LO4.** Use developmental tools and techniques.
- **LO5.** Use scientific literature effectively.
LO6. Be aware of the risks, safety issues, legislation and regulatory requirements when designing/managing construction project.

This skill is achieved by students through the planning of their self-learning and course work activities. An important demonstration of effective planning occurs within the professional project modules – where students have to plan their work sequences and group resources.

Problem solving skills are developed through the science modules using laboratory work and professional projects, which often involve the solving of real life property problems for clients. In-class workshops also contribute to the development of this skill.

Oral communication skill development commences at Level 1 and progresses through all other levels. Students develop and practice this skill, usually in the form of providing individual and group presentations of work to their peers, although the project modules also include a presentation element to staff and / or industry professionals.

7. Admissions Criteria, including APCL, APEL and DAS arrangements

<table>
<thead>
<tr>
<th>Entry requirements</th>
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</thead>
<tbody>
<tr>
<td>Stage 1 entry:</td>
</tr>
<tr>
<td>• 5 GCSE’s are normally required, grade C or above, to include Mathematics, English Language &amp; Science, together with one of the qualifications listed below:</td>
</tr>
<tr>
<td>• A Level/AS Level/Vocational A Level: 280 A-level points from any mix of subjects.</td>
</tr>
<tr>
<td>Alternatively, a Vocational Double Award in a related discipline with grade BB. National Diplomas and Certificates, Edexcel BTEC level N.</td>
</tr>
<tr>
<td>Stage 2 entry and transfer:</td>
</tr>
<tr>
<td>• Students may transfer onto the 2nd year of the programme if they have successfully completed year 1 of BSc (Hons) Construction Management accredited subject.</td>
</tr>
<tr>
<td>• Students may transfer onto the 2nd year of BSc (Hons) Construction Management and the Environment, if they have successfully completed the first year of the programme.</td>
</tr>
<tr>
<td>• Successful completion of an approved Foundation Degree will allow Stage Two Transfer.</td>
</tr>
</tbody>
</table>
Stage 3 entry:

- Through an appropriate admissions process such as an interview, or portfolio of evidence, possible entry onto the final year.

8. Progression criteria for Final and Intermediate Awards

The University of Plymouth’s “Assessment Regulations for Undergraduate Programmes of Study”, e.g. Foundation and Vocational Certificates and Diplomas will apply.

9. Exceptions to Regulations

At the time of writing one accrediting Body, the Chartered Association of Building Engineers (CABE) has verbally feedback objections to the 10:30:60 degree classification ruling and has requested either a 30:70 or 20:80 calculation be used. As soon as the confirmation of this has been received and agreed with the University the programme documentation will be updated appropriately.

10. Transitional Arrangements

Transitional arrangements will apply to repeating students, part time students and those students progressing between one stage of the pre-CEP programme to the next of the post-CEP programme.

Students that need to repeat or retake the content/skills/learning of pre-CEP modules will be offered the chance to enrol for the part of the new module that carries the required content. After discussions with the faculty’s Associate Dean for Teaching and learning and bearing in mind a number of 10 credit modules will be put together to form 20 credit modules, sometimes in different semesters/years, a flexible approach is being taken. Where students do find themselves in a transition situation, appropriate counselling with the Programme Leader, senior administrators and Discipline Head will be sought and an individual solution for each case applied.
Appendix A: Programme Learning Outcomes

Teaching learning and assessment strategies

The assessment strategy for the programme is informed by professional body requirements, feedback from quality assessments and independent commentary from invited professionals. A general strategy for the programme as a whole is to incrementally focus students more on providing quality and depth in terms of their output as they progress through the levels. Thus, the strategy is for undergraduates to develop their critical and analytical skills as they progress through the programme.

Level One

The strategy at Level 1 is to assess the development of students’ skill development, knowledge and understanding to ensure that they are adequately prepared to progress to Level 2. At this level learners are expected to gain and analyse knowledge and to develop their evaluative skills through in-class work and assignments.

Assessment by examination is minimised in the autumn semester to ensure the incoming students have sufficient time to settle into the course academically. Spring semester assessment provides for a full range of examinations to assure academic standards and includes a range of coursework designed to provide students with opportunities to research and present findings in a variety of ways. Formal group work commences with a syndicate design project where the final assessment is jointly assessed by staff and visiting professionals through the medium of an inter-active exhibition.

Level Two

The overall strategy at Level 2 is to ensure learners have a detailed knowledge of the subject disciplines, and are capable of analysing a wide range of information with minimum guidance. Learners are expected to develop their evaluative techniques, with an ability to evaluate the relevance and significance of information obtained.

The course work strategy at Level 2 is to utilise student–centred learning to develop the more advanced evaluative and synthesis and skills capabilities. Thus there is an increased focus on student initiative than in Level 1. All taught
modules hosted by the School are examined in accordance with professional body requirements. Several modules are utilised to provide a precursor to the Dissertation. These modules require Dissertation-style coursework output following on from the Dissertation briefing for the final year. The project modules for Construction Management are normally a professionally-based project enabling students to work in teams solving real surveying-related problems. Most taught modules are subject to either a formal examination, substantive piece of coursework or an end-of-module test.

**Level Three**

At Level 3 learners will have a comprehensive knowledge of their discipline with an ability to extract information from a wide range of sources without guidance. Learners will be able to critically appraise evidence and to develop and test hypotheses.

Many Level 3 taught modules hosted by the School are formally examined. The focus at this level is for students to concentrate on providing high quality outputs, whether to theoretical or professionally based activities. The Dissertation is an important component of the final year assessment strategy, providing an opportunity for students to demonstrate their accumulated academic prowess. Tuition on research methods and Dissertation preparation is provided as a largely student-centred (staff assessed) activity at the beginning of the autumn semester. The coursework/examination strategy is as set out for Level 2, but obviously operates at a level appropriate to the necessary learning outcomes and skills.