

Programme specification

(Notes on how to complete this template are provide in Annexe 3)

1. Overview/ factual information

Programme/award title(s)	BEng (Hons) Top-Up in Building Services with Sustainable Energy
Teaching Institution	South West College
Awarding Institution	The Open University (OU)
Date of first OU validation	September 2020
Date of latest OU (re)validation	N/A
Next revalidation	March 2025
Credit points for the award	360 (120 Top-Up)
UCAS Code	N/A
JACS Code	
Programme start date and cycle of starts if appropriate.	September 2020
Underpinning QAA subject benchmark(s)	Engineering Benchmark Statement, 2019
Other external and internal reference points used to inform programme outcomes. For apprenticeships, the standard or framework against which it will be delivered.	<ul style="list-style-type: none"> • Draft Programme for Government; • Government Industrial Strategy – Economy 2030; • South West Colleges’ Development Plan; • QAA UK Quality Code for Higher Education, Part A; • Feedback from industry (Industrial Advisory Board) and student focus groups; • Chartered Institute Of Building Services Engineers
Professional/statutory recognition	Propose to request CIBSE accreditation
For apprenticeships fully or partially integrated Assessment.	N/A
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	PT, FT – Face to Face (with an element of blended learning support)
Duration of the programme for each mode of study	FT – 1 Years PT – 2 Years (Two 15 week Semesters per year)
Dual accreditation (if applicable)	N/A
Date of production/revision of this specification	February 2020

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in student module guide(s) and the students' handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

2.1 Educational aims and objectives

This course has a sustainable industry focused approach to Building Services and Sustainable Energy, where graduates will develop an extensive range of professional subject knowledge and technical skills. This knowledge will equip students to work within the industry to help achieve a more sustainable, higher quality built environment.

The overall aim of the course is to provide a broadly based education in this industry that prepares graduates either to follow a productive career as professionals/technicians in the Building Services or Energy industries or to proceed to a higher academic qualification. A collaborative project and professional ethics component has been built into the programme to enhance the student's employability and effectiveness in the workplace.

In fulfilling this purpose the course aims to provide students with knowledge and understanding of the context, core concepts and theories relevant to management in the design, creation and maintenance of a sustainable built environment. (Focussing principally on UK industries but including an international perspective).

The BEng (Hons) Top-Up in Building Services with Sustainable Energy seeks to:

- Develop transferable skills which students will be able to apply both within an academic context and in their professional careers.
- Develop cognitive skills which students will be able to apply in reaching professional judgements, solving problems and making decisions within the relevant disciplines.
- Develop practical and technical skills relevant to Building Services Engineering and Energy, which students will be able to apply in an entrepreneurial and creative way in their professional careers.
- Foster an environment in which learning experiences are shared by students on various parallel construction-related courses, promoting good quality communication and the inter-disciplinary nature of the wider industry.

- Encourage self-motivation and independent thought, such that graduates will be confident in challenging established working practices and responding to the future needs of the Building Services and Energy industries and their associated professions.
- Promote a culture of intellectual enquiry such that graduates will recognise the importance of lifelong learning for both personal and professional development to become resilient professional leaders and engaged global citizens.
- Promote social, ethical and environmental awareness.

Academic Development at Level 6:

Building from the key academic skills developed and embedded at Levels 4 and 5, the BEng (Hons) in Building Services with Sustainable Energy aims to stretch and challenge all learners to become more critical, reflective and analytic individuals in all aspects of their academic journey. Tutorials, seminars and laboratory-based learning environments will foster independence and drive the students to conduct detailed, independent explorations and experiment within their chosen field. Learners will be encouraged to reflect and evaluate on issues, ensuring that arguments are substantiated with evidence and reasoned arguments. Level 6 learners will understand the complexity of the issues faced within the industries and be encouraged to explore and challenge design concepts while completing project modules.

2.2 Relationship to other programmes and awards

(Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction)

The College offers the following courses from which students may progress, after successful completion, to the BEng (Hons) Top-Up in Building Services with Sustainable Energy. Entry may be at varying points depending on the level of qualification the student has attained;

FdEng in Architectural Engineering and Energy

FdSc in Construction Engineering and Management

FdSc in Construction Engineering with Surveying

FdEng in Civil and Environmental Engineering

FD in Energy Environmental and Sustainability

The above courses have been running for more than 8 years at SWC with many students not progressing to level 6 education due to employment commitments and

being unable to travel to local universities. Offering a level 6 programme of this nature will provide opportunity for previous level 5 students to return to higher education and avail of level 6 study.

Within this top-up degree programme there will be an exit award built in;

Upon successful completion of 60 credits at Level 6 (totalling to 300 credits) students will have attained the exit award of Ordinary Degree (BEng);

Upon successful completion of all Level 6 modules, including the Dissertation module, students will have attained the award BEng (Hons).

Successful completion of this programme, to BEng Hons level and depending on level of achievement, will allow for articulation to a range of postgraduate courses through our local universities (Open University, Ulster University and Queens University Belfast) and universities across the UK and further afield.

2.3 For Foundation Degrees, please list where the 60 credit work-related learning takes place. For apprenticeships an articulation of how the work based learning and academic content are organised with the award.

Not applicable.

2.4 List of all exit awards

Ordinary Degree (BEng) upon successful completion of 300 credits (60 credits at Level 6).

3. Programme structure and learning outcomes

Programme Structure - LEVEL 6

Compulsory modules	Credit points	Optional modules	Credit points	Is module compensatable?	Semester runs in
Green Building Design	20			Yes	1
Project Management & Professional Ethics	20			Yes	1
Collaborative Project	20			Yes	1
HVAC	20			Yes	2
Research & Dissertation	40			No	2

Intended learning outcomes at Level 6 are listed below:

<u>Learning Outcomes – LEVEL 6</u>	
3A. Knowledge and understanding	
Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>A1 Critically analyse, from a variety of sources, the key concepts, theories, principles and processes involved in Building Services with Sustainable Energy.</p> <p>A2 Apply appropriate techniques, methods, materials, product and practices, including the regulatory framework, codes and standards, employed in the Building Services and Sustainable Energy industries.</p> <p>A3 Synthesise and summarise, through a critical evidence based approach, current issues within the context in which Building Services engineering operates including, the legal, social, economic, health and safety, cultural, technological, physical, environmental and global influences.</p> <p>A4 Apply knowledge and understanding of the key professional, legal, moral and ethical issues involved in the Building Services and sustainable energy industries.</p>	<p>Learning and Teaching Methods:</p> <p>Teaching and learning will include tutorials, academic workshops, virtual learning environment (VLE) integration, lectures, seminars, directed study, observations, presentations, peer feedback and plenary activities.</p> <p>Tutorials and seminars, together with tutor observation within the practical modules will provide the opportunity to provide feedback to the students as well as the process of feeding forwards, students will be encouraged to seek advice and strive for improvement in their knowledge, understanding and application of the theoretical contexts encountered. Moving from Level 5 into Level 6, students will be challenged during these sessions to critically reflect and evaluate in elements of assessment. Group critiques and individual tutorials promote reflective and evaluative learning and the development of higher order academic skills.</p> <p>Assessment Methods:</p> <p>Learning outcomes will be addressed within the modules of the programme. Learners will have the opportunity to study, engage and apply their knowledge within assessments. They will be challenged to engage in academic discussion and will evaluate contemporary research, in each module, developing their knowledge and understanding. The application of this knowledge and understanding will be evident in the research aspect of assessments, where learners</p>

Learning Outcomes – LEVEL 6

3A. Knowledge and understanding

will apply theories and concepts to case studies and independent research tasks.

Where applicable, learners will use industry standard equipment and software to apply their knowledge. Most modules have an applied element to them, allowing learners to use their previous knowledge and understanding and apply their practice. They will provide justification using an evidence-based approach to their design and delivery, through their underpinning knowledge of the relevant industries and personal development. Knowledge and understanding will be monitored using formative assessment throughout the modules.

Assessment strategies may include essays, reports, portfolios, case studies, research reports, presentations, practical observations.

Assessment strategies offer students clear guidance with reference to future development. Self-reflection and peer evaluation constitutes an important part of formative assessment. Summative assessment will provide the students with clear and concise feedback that will embed not only good practice in future knowledge acquisition but also equipping students with the tools needed to improve and expand their knowledge in their continuing studies, particularly as they move from study into their chosen industry.

3B. Cognitive skills

Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>B1 Interpret criteria and specifications and plan their implementation.</p> <p>B2 Synthesise and critically analyse and solve a range of industry problems using appropriate techniques and principles from a range of sources.</p> <p>B3 Through research activities, make well considered decisions in complex and unpredictable scenarios relating to risks or safety concerns involved in the overall design process.</p> <p>B4 Understand the importance of academic and professional integrity.</p>	<p>Learning and Teaching Methods:</p> <p>Learners will be challenged to develop their cognitive skills by developing arguments and hypotheses based upon their research. They will explore various topics and be challenged to develop a critical analysis of their findings in areas of building services and sustainable energy. Teaching and learning will include tutorials, academic workshops, VLE integration, lectures, seminars, directed study, observations, presentations, peer feedback and plenary activities.</p> <p>The students experience learning through problem solving, through solution finding and implementation while developing effective communication and use of terminology. Modules within Semester 1 of Level 6 supply students with the opportunity to develop and showcase their strong design skills. The collaborative project module will require students to communicate their ideas and intentions effectively using strong reasoning and well-articulated language and terminology. This approach enables students to develop their critical thinking, creativity and communication skills. <i>This is used to create a contagious energy among students to develop a deeper understanding of the subject and quest for further knowledge and skills through active learning.</i></p> <p><i>Reflective evaluations, research and analysis will be integral to all modules covered at level 6. Students will be expected to form strong reasoning and well-articulated precise language at this stage of the course. Undertaking extensive independent research and creative thinking.</i></p>

3B. Cognitive skills

Assessment Methods

The Final Dissertation Project will challenge the students in their ability to research, propose, develop and create a substantial industry standard research outcome. Assessable work will be written as well as visual and oral in the form of viva voce and presentations to peers, tutors and industry specialists.

Learners will be assessed on their ability to critique and evaluate research. They will develop their knowledge through the use of independent thinking skills and produce recommendations based upon their knowledge which is justified through supported literature.

3C. Practical and professional skills

Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>C1 Plan, allocate and evaluate individual and collaborative project work using relevant test and measurement apparatus and related industry standard software.</p> <p>C2 Devise, plan and undertake practical/field work, laboratory or other investigations in a responsible manner, paying due diligence to ethical and data protection issues.</p> <p>C3 Appraise environmental, legal and commercial constraints within the industries.</p> <p>C4 Apply competently, appropriate techniques (including aspects of BIM) to specific problems.</p>	<p>Learning and Teaching Methods:</p> <p>Teaching and learning may include tutorials, academic workshops, VLE integration, lectures, seminars, directed study, observations, presentations, peer feedback and plenary activities.</p> <p>The learning and teaching methods place emphasis on knowledge development, experimental work, ideas generation and solution development. Assignment briefs simulating real practice also contribute providing students with opportunities to perfect practical skills from level 5 and produce industry standard outcomes. Students producing independent work where they gain interest in a variety of information sources and practical experience through engagement and stimulation of learning. Students learn as an individual to study and develop independent thinking, problem solving, analysing, and evaluation and self-reflection skills.</p> <p>Live projects and work related learning also provide vehicles for learning and teaching. Advanced modules at Level 6 will assess the students and their ability to think both creatively and critically, analyse briefs to use their practical and professional skills to produce a resolute outcome in all areas.</p> <p>Assessment Methods:</p> <p>Learners will have the opportunity to use modern, industry standard equipment in order to apply their knowledge and also develop the skills required for employment. The nature of the programme requires learners to become independent in their ability to study and develop. The research tasks in modules and the research dissertation module requires learners to apply decision making skills and justification of</p>

3C. Practical and professional skills	
	<p>these decisions based upon their knowledge and understanding.</p> <p>All Level 6 modules will assess and challenge the students in terms of design reasoning, higher order thinking and ability to innovate, adapt and manage projects.</p>

3D. Key/transferable skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>D1 Demonstrate digital literacy and communication skills in a range of contexts suitable for employment within the Building Services or Energy industry.</p> <p>D2 Demonstrate competence in the use of electronic information handling and data processing through effective use of Digital Information Systems e.g. BIM</p> <p>D3 Demonstrate numeracy skills to synthesise, analyse and interpret data to test a hypothesis or proposition.</p> <p>D4 Develop the skills necessary to work independently, manage own personal learning and development, manage time effectively and for personal organisation and continuing professional and educational development.</p>	<p>Learning and Teaching Methods:</p> <p>Teaching and learning will include tutorials, academic workshops, VLE integration, lectures, seminars, directed study, observations, presentations, peer feedback and plenary activities.</p> <p>Transferable and key skills are delivered throughout the course, i.e. lectures, coursework assignments, practical work. The teaching and learning of ICT skills will be within the course structure. Workshops include demonstrations such as ICT skills, PowerPoint presentations and Library Research skills. Effective learning environments are engendered in labs, workshops, and all practical modules utilise industry standards. Other learning and teaching methodologies include team-teaching, demonstration and peer learning.</p> <p>Research skills at level 6 should be at a high level of professional competence and the Collaborative Project and Research modules both supports and assesses this. Through semester 1 assessments study and planning skills are developed to a high level. Students are encouraged and expected to meet these demands and develop independent study skills throughout the year at level 6. Independent study will be scrutinised and expected increasingly here. Autonomous skills should clearly be evident in the students' approach to work.</p>

3D. Key/transferrable skills

Over the course of the year, learners will be given key information, such as live briefs, which they must research, analyse and interpret, then seek out further reading where they must independently broaden their understanding of specific problems and design principles. This will be designed to stretch learners and develop their skills from level 6 to professional work or further studies.

Creative and critical thinking is engendered in every aspect of the programme and will be further fostered and encouraged through lecturer mentoring on a weekly basis.

Assessment Methods:

Learners will develop their key transferrable skills through the development of their knowledge of data analysis where they will enhance their understanding of statistical assessments. Throughout the programme learners will develop digital literacy with the completion of assessments (reports, portfolios, practical reports) and presentations using suitable methods. There will be a range of assessment methods to allow learners to develop their communication skills in different ways, both written and oral. The need to act independently is very much evident in the research of literature and development of projects within the modules delivered.

Assessment strategies will offer students clear guidance with reference to future development. Self-reflection and peer evaluation constitute an important part of formative assessment. Emphasis will be placed on continual feeding forward to students in order to support the development and maintenance of these key skills.

Exit Award – Ordinary Degree (BEng) in Building Services with Sustainable Energy upon successful completion of 60 credits at Level 6.

4. Distinctive features of the programme structure

- **Where applicable, this section provides details on distinctive features such as:**
 - where in the structure above a professional/placement year fits in and how it may affect progression;
 - any restrictions regarding the availability of elective modules;
 - where in the programme structure students must make a choice of pathway/route.
- **Additional considerations for apprenticeships:**
 - how the delivery of the academic award fits in with the wider apprenticeship;
 - the integration of the 'on the job' and 'off the job' training;
 - how the academic award fits within the assessment of the apprenticeship.

- This programme of study will offer clear routes that facilitate opportunities for successful progression from Foundation Degrees in related areas to **BEng (Hons) Building Services with Sustainable Energy**. South West College will be the first regional college in Northern Ireland to provide this level of qualification in collaboration with the Open University and provide learners with a range of full time and part time study modes that are accessible within the South West Region.
- A programme with opportunity for exit points.
- The BEng (Hons) Building Services with Sustainable Energy is subject to high levels of employer engagement, via the Industrial Advisory Board, in areas such as curriculum and module design. Employer engagement will be encouraged throughout the programme in curriculum development, evaluation, guest speakers and relevant site visits on an ongoing basis.
- Innovative technology such as Virtual/Augmented Reality, Renewable Energy Training Rigs, Wind Testing Tunnel, wind generation test equipment, biomass boiler, Solar Thermal Flat Plate system, Solar Thermal Tube collector and solar thermal heat dissipation, Practical workshops, Hydraulic Flume, Passive House Labs, HVAC Training Rigs Etc. will be used to enhance learning.
- Learners will engage in Personal and Professional Development (PPD) and Work-Related Learning.
- Study skills support is important for all students and is outlined in the SWC HE Handbook which all HE students in South West College receive a copy. Study skills are embedded into modules at level 6 enabling students to gain skills in report writing, referencing, effective group-working, independent learning, taking notes and examination revision covered in modules within the programme. Further study skills are included in the induction programme and Student Services staff deliver training sessions to students when requested on Study Skills and Revision Skills. A Higher Education academic support officer is allocated on each campus and is available to provide support on a range of

study skills such as Academic Writing, Harvard Referencing, Plagiarism, Presentation Skills, Research Techniques, Exam Revision tips and Proof-reading. Academic Support officers can meet students in small groups or on a one to one basis via referrals from HE students, HE Course Tutors or Student Services. Course Directors also offer advice and guidance on study skills during tutorials sessions particularly prior to assessment submissions and during the pre-exam period.

- Access to a range of Innovation Centres and dedicated research staff to aid project based learning and research.
- Access to a strong teaching team in terms of variety of industry experience, academic and professional qualifications supporting high quality teaching and learning. The delivery of the programme has been designed to build upon the good practice of the existing Foundation Degree in Architectural Engineering and Energy. Continuing professional development of staff responsible for learning and teaching is paramount to the ongoing progression of students and the College is committed to ongoing staff training through staff contracts, the lecturers into industry initiative, training needs and staff development seminars. A number of staff on the course team have completed 'lecturers into Industry' staff development which has been an excellent opportunity for staff to up skill in relevant subject areas to ensure their knowledge and skills are up to date with industry standards.
- Highly qualified Industry experts lecturing part time adds focus to current industry demands and offers opportunity for guest speakers, site visits and specialised seminars. The extensive use of resources, differentiated teaching and learning strategies to suit a diverse range of learners and technology allows the students to receive an engaging and life changing learning experience.
- The programme/modules are forward thinking, practically based and academically focused as well as considering potential future sectoral requirements. The content of the programme has been up dated and developed appropriately for level 6 to reflect current industry needs and to meet the content set out in the CIBSE guidance notes.

5. Support for students and their learning.

(For apprenticeships this should include details of how student learning is supported in the work place)

Learners and their learning are supported in a number of ways:

Induction sessions provide timely advice on the key aspects of the course and services provided by the college. These are for learners in their first year and are delivered by members of staff from the course teams and the college learner support staff. It welcomes learners to the college, gives detailed information on college structure, staff contact information, teaching and learning resources, health and safety and learner support services and details on the college environment. It also provides advice concerning assessment and how to approach study in higher

education.

A course handbook provides all the necessary information about the course. It includes information on the teaching staff, outline information on modules studied and the course calendar. It contains the course specification and the current course regulations.

Module handbooks describe the content of each module delivered in a particular year. These provide learners with the module teaching and assessment schedules and a list of the recommended texts.

Learning resources at SWC are available to support the learner. The VLE is used to enable learners to access resources from lectures plus additional reading, resources and activities in their own private study time. They are directed to on-line resources for research as well as e-books through SWC LRC catalogue. Turnitin plagiarism software is utilised so that they can improve their referencing skills. There are also opportunities for blogs, forums, collaborative and peer learning and support through the VLE which are used to ensure both equality of learning experiences and opportunities for further challenge and research supplementary to the main delivery in the classroom. Regular discussions and support sessions through software (Skype, Collaborate) are provided by teaching staff for part-time learners.

A Course Director for the course year provides a single first point of reference for both new and continuing learners. This person is an experienced member of staff with the responsibility of assisting learners in their personal and career development and will provide pastoral care throughout the student's studies. The Course Director will be responsible for direct contact with the students and providing a one-hour tutorial to each group weekly.

Tutorials (weekly) with the Course Director are used to guide students in matters affecting progress, curriculum content, assessment, personal and academic development planning and study and examination skills. Students can use (Higher Academic Achievement Record) HEAR to monitor and record this information. Should additional support and guidance be required at any time, the Course Director will direct the student to services such as Careers, Student Support (including Counselling) etc.

Progress and attendance is also recorded on the HEAR tutorial system by the course team. This allows the student to be aware of progress and how to act on comments and progress.

A counselling service is available to learners who are experiencing problems with aspects of their lives other than the strictly academic. However, if these problems are affecting their studies or academic progress the course tutor/studies advisor and appropriate members of the course team co-operate to provide recommended help and advice to the learner concerned. This service is provided by an external independent counsellor and the Learner Support Officer at South West College.

Strong linkage with learner services in relation to health and welfare, finance, guidance and counselling, careers and special needs.

A careers service is also available for learners to help them in determining their future career and supporting their applications for employment. Learners will

discuss career options during meetings with their class tutor/studies advisor. The student/staff consultative committee gives learners the opportunity to raise and discuss general course concerns.

Learners have access to the college library facilities, staff and to IT support staff. Learners are provided with e-mail accounts and have full access to the Internet.

Learners will also have access to lecturer support through e-mail and the College VLE and google classroom.

Feedback is an essential part of a student's learning experience and will be made available to students in each module within Open University timescales. All feedback will be structured so as to provide a beneficial and positive impact on their learning. Students will be given the opportunity to discuss the oral/written feedback with the tutor on an individual basis for each module. Further discussion can be made available to students during tutorial sessions.

Research/Study Skills – students will be required to undertake an initial induction module that will outline research methods and study skills. Students will also develop research skills and study skills through the undertaking of a number of modules prior to the 'Research & Dissertation' module. Students will have the opportunity to avail of research/study workshops with the HE Academic Support Officer prior to studying the dissertation module.

6. Criteria for admission

(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)

Entry point - Year 3:

Students who wish to gain admission to the BEng (Hons) Top- Up

Entry to the BEng Honours Top-Up programme requires applicants to have successfully completed a Foundation Degree (or other relevant Level 5 qualification such as a Higher National Diploma) in a related discipline, qualifications deemed equivalent or by the college's policy relating to APEL. Students must also hold GCSE English Language and Maths at grade 4 (grade C) or above (Level 2 literacy and numeracy qualifications or equivalences are also accepted).

International Students

An international student is defined as a student who requires a Tier 4 (student) visa in order to study in the UK. Such applicants may or may not be living overseas at the time of making their course application. International applicants should apply via the usual route for full-time undergraduates, All International students must meet the college general entry requirements and academic qualifications requirements of the course. In addition, International students must have the required level of English Language IELTS academic 6.0.

All international qualifications will be checked for academic comparability using the online UKNaric qualifications database. The Admissions team has access to UKNaric training materials and guidance on the evaluation and verification of

international qualifications.

Students may gain admission through Recognised Prior Learning.

RPL is the process by which the college can identify, assess and certify an applicant's past educational and vocational achievements. Applicants wishing to be considered for APL for a particular program for the purpose of admission or credit must bring this to the attention of the course director at the application and interview stage. Applicants wishing to be considered for direct entry into a level above four or five would normally only be credited a maximum of 240 credits. Gaining credit at level 6 does not qualify.

APEL is where applicants can gain admission to a program on the basis of their experiential learning. At the application stage applicants should inform the admissions staff and the relevant course director of their intention to apply for APEL. APEL can only be used for admission purposes and not to gain credit or exemptions.

All applicants will be interviewed to assess their suitability for this programme of study.

7. Language of study

English.

8. Information about non-OU standard assessment regulations (including PSRB requirements)

Not applicable.

9. For apprenticeships in England End Point Assessment (EPA).

(Summary of the approved assessment plan and how the academic award fits within this and the EPA)

Not applicable.

10. Methods for evaluating and improving the quality and standards of teaching and learning.

All HE programmes at SWC are subject to the Quality Management and Enhancement processes. In line with FHEQ Benchmark Statements the following processes are in place:

- Internal verification/moderation, cross marking and external examining processes used to ensure validity and reliability of assessment process.
- The Course Committee considers learner feedback from each module.
- Staff/Student Consultative Committee meetings provide the means of highlighting any difficulties, relating to the course, experienced by the cohort.
- Annual Course Review procedures consider quantitative and qualitative feedback and formulate action plans.
- Learners complete a module evaluation at the end of each module, each semester/year and at the end of the programme.
- The course team reviews the NSS and annual monitoring to ensure improvement is made where applicable in the area of teaching and learning.
- Staff appraisal is carried out on a two-year cycle with attention given to the development needs of the individual staff member.
- The College will annually complete the OU course review & evaluation documentation if applicable.
- The College has a Staff Development Programme, which facilitates specific training/development for staff. Many staff on the course team have completed 'lectures into industry' and have also become or working towards being fellows of the HEA.
- All staff are encouraged to complete Information & Learning Technology qualifications.
- Views of external examiners are considered and SWC/OU reporting mechanisms are/will be followed.
- Informal views and formal written feedback is considered from Employers via the Industrial Advisory Board and subject specific focus groups.
- Learner performance data and career progression is annually monitored.
- Peer observation and assessment has been introduced to assessment matrix.

All team members have to attend programme specific team meetings during the year, all with pre-set agendas, and the Course Directors have to attend Higher Education Committee Meetings, which consider quality management. All new staff to the programme are supplied with a dedicated mentor and a full induction, with extra supervision over their first year in many forms such as Teaching & Learning Mentors and additional peer observations.

11. Changes made to the programme since last (re)validation

Validation of new programme.

Annexe 1: Curriculum map.

Annexe 2: Curriculum mapping against the apprenticeship standard or framework (delete if not required).

Annexe 3: Notes on completing the OU programme specification template.

Annexe 1 - Curriculum map

This table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes.

Level	Study module/unit	Programme outcomes																											
		A1	A2	A3	A4					B1	B2	B3	B4					C1	C2	C3	C4					D1	D2	D3	D4
6	Green Building Design		✓	✓	✓					✓	✓	✓							✓			✓				✓	✓		✓
	Project Management & Professional Ethics			✓	✓						✓		✓								✓				✓			✓	
	Collaborative Project	✓	✓		✓					✓	✓								✓			✓			✓	✓			
	HVAC	✓	✓							✓		✓								✓	✓						✓	✓	
	Research & Dissertation	✓		✓								✓	✓						✓	✓								✓	✓

Annexe 2: Notes on completing programme specification templates

- 1 – This programme specification should be mapped against the learning outcomes detailed in module specifications.
- 2 – The expectations regarding student achievement and attributes described by the learning outcome in section 3 must be appropriate to the level of the award within the **QAA frameworks for HE qualifications**: <http://www.qaa.ac.uk/AssuringStandardsAndQuality/Pages/default.aspx>
- 3 – Learning outcomes must also reflect the detailed statements of graduate attributes set out in **QAA subject benchmark statements** that are relevant to the programme/award: <http://www.qaa.ac.uk/AssuringStandardsAndQuality/subject-guidance/Pages/Subject-benchmark-statements.aspx>
- 4 – In section 3, the learning and teaching methods deployed should enable the achievement of the full range of intended learning outcomes. Similarly, the choice of assessment methods in section 3 should enable students to demonstrate the achievement of related learning outcomes. Overall, assessment should cover the full range of learning outcomes.
- 5 – Where the programme contains validated **exit awards** (e.g. CertHE, DipHE, PGDip), learning outcomes must be clearly specified for each award.
- 6 – For programmes with distinctive study **routes or pathways** the specific rationale and learning outcomes for each route must be provided.
- 7 – Validated programmes delivered in **languages other than English** must have programme specifications both in English and the language of delivery.

