PROGRAMME SPECIFICATION

1. Key Information

Programme Title:	BSc (Hons) Building and Construction Engineering
Awarding Institution:	Buckinghamshire New University
Teaching Institution(s):	Buckinghamshire New University
Subject Cluster:	3D Design
Award Title (including separate Pathway Award Titles where offered):	BSc (Hons) Building and Construction Engineering
Pathways (if applicable)	
FHEQ level of final award:	6
Other award titles available (exit qualifications):	Certificate of Higher Education Diploma of Higher Education BSc Building and Construction Engineering
Accreditation details:	Chartered Association of Building Engineers (CABE)
Length of programme:	3 years Full time 5 years Part time
Mode(s) of Study:	Full Time Part Time
Mode of Delivery:	In person (on-site) delivery
Language of study:	English
QAA Subject Benchmark(s):	Land, Construction, Real Estate and Surveying (2019) Engineering (2019)
Other external reference points (e.g. Apprenticeship Standard):	
Course Code(s):	BSBACEFT / BSBACEPT
UCAS Code(s):	
Approval date:	01 December 2022
Date of last update:	

2. Programme Summary

Buildings take on many forms from newly built facilities to the refurbishment of premises for every sector of industry. A Building and Construction Engineer undertakes the technical and commercial management of projects which provide engineering design solutions to maintain and enhance the quality of the environment and community. You will ensure that business, client and end user needs are taken into account and you operate within financial, environmental and safety constraints. As building and construction engineers, you could be working in a design consultancy, a contractor or an engineering company.

This degree will produce building and construction engineering graduates with the necessary foundation skills and knowledge to lead multi-disciplinary construction projects with a focus on the design and construction of buildings. You will develop and attain the know-how necessary to apply technology to engineering problems and processes, and to maintain and manage current technology.

The building and construction engineering course covers how to manage a team of engineers and technicians and how to collaborate with other construction professionals to design building elements and the various services found in buildings. Digital technologies are embedded in the curriculum and are a key part of the learning and teaching along with vocational skills. The course typically includes systems such as renewable and emerging technologies, energy management, heating, ventilation, air conditioning, drainage, lighting, power, water services and building management systems. You will consider design and construction methods evaluating the social, ethical, legal, environmental and economic factors relevant to engineering.

You will employ current and emerging technologies to produce innovative engineering design solutions for development, manufacture and construction. Over the course of the programme, the process of learning will involve the use of industrial projects and case studies to develop analytical and problem solving skills.

This programme will also run with part-time mode of delivery for 5 years. This is designed for those in employment within construction industry, who will attend the course on a day release or following a block delivery.

3. Programme Aims and Learning Outcomes

Programme Aims

This programme aims to:

- Provide learners with a critical understanding of the mathematical, scientific and engineering principles, methods and modelling that underpin the design of building components and services systems
- 2. Develop learners' key transferable skills and behaviours, including creativity, problem solving, self-reflection and self-management to make an immediate contribution in the workplace at the appropriate professional leve
- 3. Produce well-rounded graduates who are able to use a sound, evidence-based approach to problem solving to develop building components and services engineering design solutions which maintain and enhance the quality of the environment and community and meet client, financial and safety objectives
- 4. Produce graduates who will be a key player of the construction project team who will have developed skills to manage the planning, budgeting and organisation of tasks, people and resources through the use of appropriate management systems, working to agreed quality standards, project programme and budget, within legal, contractual and statutory requirements
- 5. Offer a contemporary curriculum providing a stimulating and challenging programme of study that reflects current practice and meets the needs of employers in the field of building and construction engineering

Programme Learning Outcomes

Knowledge and Understanding (K)

On successful completion of the programme you will be able to:

ID	Learning Outcome
K1	Demonstrate detailed subject knowledge and understanding of the mathematical and scientific principles of the analysis and design of technical solutions as applied specifically to building design and construction.
K2	Demonstrate a comprehensive understanding of materials, construction technology, health and safety and sustainability considerations for the design and construction of buildings.
К3	Discern engineering principles, techniques, best practices and contemporary digital technologies for the quantitative and computational analysis and design of structural building elements and engineering systems such as building services.
K4	Identify and discuss the client's needs and evaluate the practicality of using certain engineering solutions to meet those needs, taking into account constraints and opportunities.
K5	Evidence understanding of the principles and techniques of effective project management including management of resources and make informed decisions to select procurement and contract options.

Analysis and Criticality (C)

On successful completion of the programme you will be able to:

ID	Learning Outcome
C1	Create and develop an innovative and economically viable design of building components, and services to meet a defined need by selecting suitable techniques, materials, processes and technologies.
C2	Monitor, interpret and apply the results of analysis including the laboratory experiments and modelling to solve engineering problems and to recommend appropriate action.
C3	Use a sound, evidence-based approach to problem solving and apply technical knowledge and understanding to create or adapt design solutions that are fit for purpose including operation, maintenance and reliability.
C4	Plan for the effective project management including time, cost, quality and sustainability requirements as well as analysis and management of project risks.
C 5	Integrate research and scholarship skills in the structure of a strategy for discovery, learning and its dissemination.

Application and Practice (P)

On successful completion of the programme you will be able to:

ID	Learning Outcome
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P1	Manage and apply safe systems of work including taking responsibility for your own obligations for health, safety and welfare issues, assessing and controlling risk.
P2	Operate within the professional and ethical codes of conduct and associated responsibilities as set out by the relevant professional institution.
P3	Apply quality standards, codes of practice and industry standards, legal and regulatory frameworks that govern the design of buildings and systems evaluating the impacts of development activities on the environment, on commerce, on society and on individuals.
P4	Use extensive knowledge and understanding of management and business practices, and their limitations, and how these may be applied appropriately.
P5	Evidence the importance of leading and managing teams and developing staff to meet changing technical and managerial needs to achieve common goals.

Transferable skills and other attributes (T)

On successful completion of the programme you will be able to:

ID	Learning Outcome
T1	Manage personal workloads, meet deadlines, negotiate and pursue goals with others.
T2	Set objectives, carry out and record the continuing professional development necessary to maintain and enhance knowledge and competence.
Т3	Exercise personal responsibility and make independent engineering judgement, which may be working as a member of a team or leader.
T4	Promote appropriate skills, attitudes and behaviours in professional practice.
Т5	Communicate information, argument, and analysis effectively to technical and non-technical audiences.

Graduate Attributes

The BNU Graduate Attributes of: Knowledge and its application; Creativity; Social and ethical awareness and responsibility; and Leadership and self-development focus on the development of innovative leaders in professional and creative capacities, who are equipped to operate in the 21st Century labour market and make a positive impact as global citizens.

Graduates will develop their knowledge and understanding of the scientific principles, design approaches, construction technologies for the buildings (K1-K5) which they will use to design and construct buildings ensuring sustainable development of the built environment (P1-P3). The graduate will acquire leadership and creativity skills by working on project work solving real world problems using innovative approaches (C1-C5, P4, P5, T2-T4) and will have relevant skills required by the industry making them highly employable (P1, P3,P4). They will be able to communicate solutions to engineering and technological problems using various media to wider audience (T4, T5). They will be able to evaluate the impact of the decisions made during the lifecycle of buildings through the application of the learning of professional practices and standards (P1-P5). They will have the qualities needed for employment in situations requiring the exercise of personal responsibility, and decision-making in complex and unpredictable circumstances (K4, K5, C3, C4, T3).

4. Entry Requirements

The University's <u>general entry requirements</u> will apply to admission to this programme with the following additions / exceptions:

- A typical offer will require a UCAS tariff score of: 104 128
- A minimum of two full A-levels (or equivalent) is required. Every application is considered on an individual basis.
- Applicants will need to complete an interview and/or demonstrate portfolio work, further guidance is given on the interview and portfolio advice pages.
- For further details of our international English entry requirements, please visit our international pages.

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If you do not meet the entry requirements you may, if you have relevant professional experience, still be invited for interview, where you will be required to demonstrate the necessary knowledge and understanding for entry onto the course.

Previous study, professional and / or vocational experiences may be recognised as the equivalent learning experience and permit exemption from studying certain modules in accordance with our <u>accreditation of prior learning</u> (APL) process.

5. Programme Structure

Pathway 1 or stand-alone course [add further tables for each additional pathway]

Level	Modules (Code, Title and Credits)	Exit Awards
Level 4	Core modules: CAD4047 Science and Materials for Designers (20) CAD4048 Building Construction Technology (20) CAD4049 Building Design, Drawings and Measurement (20) CAD4050 Principles of Construction Management (20) CAD4052 Mathematics and Surveying (20) CAD4053 Building Regulations and Legal Contexts (20)	Certificate of Higher Education, awarded on achievement of 120 credits at Level 4
Level 5	Core modules CAD5030 Advanced Construction Technology (20) CAD5031 Industrial Skills in Sustainability (20) CAD5032 Management Strategies, Economics and Finance (20) CAD5033 Structural Analysis and Design (20) CAD5034 Heating, Ventilation and Air-Conditioning Systems (20) CAD5035 Electrical Design and Installation (20)	Diploma of Higher Education, awarded on achievement of 240 credits, including a minimum of 120 credits at Level 5
Level 6	Core modules: CAD6014 Research Dissertation (40) CAD6015 Procurement and Contracts Management (20) CAD6016 Structural Design of Buildings (20) CAD6017 Group Project (20) CAD6007 Professional Practice (20)	Ordinary Degree, awarded on achievement of 300 credits, including 60 credits at Level 6 and 120 credits at each of Levels 4 and 5 Honours Degree, awarded on achievement of 360 credits, including 120 credits at each of Levels, 4, 5 and 6

Please note: Not all option modules will necessarily be offered in any one year. Other option modules may also be introduced at a later stage enabling the programme to respond to changes in the subject area.

6. Learning, Teaching and Assessment

Learning and teaching

Learning and teaching activities are strongly focused on developing your knowledge and critical evaluation of theories and concepts in the field of building and construction engineering and its application in practice. The activities are a mix of lectures, tutorials and seminars together with workshops and laboratory based individual and group working. Project/case studies and problem-solving are key approaches, with explicit emphasis on 'real-world' learning activities and scenarios that will enable you to address realistic problems. Case studies, live briefs, simulations and scenarios will be used to develop your academic study skills, graduate skills and attributes and employability skills. Research informed teaching is considered in the delivery of the individual modules to allow you to learn from ongoing research or to take part actively in the research activities. The university's virtual learning environment (VLE) will be used as a vehicle to support your learning, alongside class-based activities. Learning materials and discussion tools will be available on the VLE for all modules.

Employers will be involved in delivering guest lectures, site visits and contribute to the assessment of the learner's work. In unforeseen circumstances when actual site/industry visits will not be possible, digital information such as photographs, drawings as well as opportunities for interaction with relevant industry practitioners virtually will be provided. At all levels of the course, employability skills have been built into the programme to prepare you to gain work experience and acquire skills to secure employment on graduating. These activities will include practitioner visits, CV preparation, mock interviews, and production of a personal portfolio.

Digital technologies and industry standard software will be used in the relevant modules. An integrated 3D digital CAD model of a building, which embeds multiple facets of information such as specifications, programme, cost, environment, health and safety etc., will be used in the teaching of relevant modules. This will foster deep learning enabling you to see how the contents delivered in different modules are interrelated to provide holistic concepts of construction technology, sustainable design, and integration of building services for effective design and operation of buildings.

You are expected to take ownership of their learning and are required to spend time outside the contact time with tutors. The independent guided study and self-learning increases from level 4 to 6, which requires high degrees of self-discipline and time management. By graduation, it is anticipated that you will be ready to face real world challenges and to gain employment.

Lectures

Lectures provide the framework for communicating theory, concepts, primary principles and industrial practices and procedures. Lectures are not deemed to focus on the one-way flow of information from lecturer to learner but are used as a vehicle for two-way dialogue and for the embedment of short concept-focussed learning activities.

Tutorials

Tutorials involve one-to-one meeting or small group supervision, feedback or detailed discussion on a particular topic or project. Tutorials can take place virtually as well a face-to-face.

Seminars

Seminars are small group sessions used to consolidate and extend learning of the materials covered in lectures. The sessions centre around structured learning activities designed to promote learner engagement. A seminar may require a short presentation from a small group of learners (peer-led) or a tutor-led session where theoretical concepts are described and explained, and example exercises as solved on a step-by-step basis. The nature of any presentation is dependent on the subject area but may for example be based on the small group findings in response to a learning activity with the finding being used for general dissemination or used for whole group discussion. The sessions may also provide a learning environment in their own right and will also be used for the provision of formative assessment and feedback

Case Studies

Module specific case studies are used to reinforce the linkage between the taught materials and the real world. Case studies will normally be used to facilitate discussion and debate in seminars and other learning events.

Practical Sessions / Workshops

Practical sessions are small group activities designed to promote the practical skills required by the module learning outcomes. Typically these will involve structured learning activities with well-defined outcomes. These sessions could also include working in the CAD and IT suites.

Laboratory Work

Laboratory work is used to underpin theoretical concepts and supports the practical aspects of a module. The learning activities require the application of appropriate techniques, interpretation of data and the communication of results. The activities also aim to promote an enquiring learner approach to potential sources of error and Health and Safety implications. Laboratory sessions complement both lecture and small group teaching sessions and emphasise regulatory roles of various British Standard and Euro Codes.

Personal Development Planning

Learners across all three levels of the course are required to record their work as they progress through sequences of projects. Aspects of design practice such as site visits and collaborations with clients or colleagues on other courses are also documented. Personal Development Planning (PDP) portfolios encourage learners to employ self-evaluation skills and critically reflect upon the learning outcomes for projects and the connections between studio and theory modules.

Study Visits and Tours

The course team arranges visits to construction companies, project sites and exhibitions introducing learners to the clients, contacts and project sites. There will be opportunities for international study visits organised across the school.

Assessment

A variety of assessment vehicles are used as appropriate to each module. The forms of assessment have been chosen so as to motivate you to achieve and to create positive learning opportunities. The assessments are mainly coursework, which include:

- Written exercises
- Report (individual and group)
- Portfolio
- In-class assignments
- · Computer-based tests
- Set exercises worksheets, to be completed as required usually in the learners own time
- Presentations (such as poster and oral, individual and group)
- Laboratory exercises and report
- Proposal
- Dissertation
- Examination

Formative feedback on your progress on the project work, directed study activities, class exercises and progress on summative assessments will be provided using verbal feedback during individual tutorials, group critiques or seminar sessions and peer feedback. Formative feedback opportunities will be provided to monitor and reflect on progress, identifying areas of achievement as well as focusing on objectives for future development.

Assessment criteria reflect the progressively independent learning expected as you progress through the course. This supports the practical nature of the course, supported by theoretical research and critical writing.

Contact Hours

Learners can expect to receive approximately 12 hours of scheduled learning activities per week. You will also be expected to undertake 18-20 hours of independent study (including research and practice) per week towards the completion of your coursework. For the part time mode of delivery, pro-rata hours of scheduled learning activities will apply.

7. Programme Regulations

This programme will be subject to the following assessment regulations:

Academic Assessment Regulations

8. Support for learners

The following systems are in place to support you to be successful with your studies:

- The appointment of a personal tutor to support you through your programme
- A programme handbook and induction at the beginning of your studies

- Library resources, include access to books, journals and databases many of which are available in electronic format and support from trained library staff
- Access to Blackboard, our Virtual Learning Environment (VLE), which is accessible via PC, laptop, tablet or mobile device
- Access to the MyBNU portal where you can access all University systems, information and news, record your attendance at sessions, and access your personalised timetable
- Academic Registry staff providing general guidance on University regulations, exams, and other aspects of students and course administration
- Central student services, including teams supporting academic skills development, career success, student finance, accommodation, chaplaincy, disability and counselling
- Support from the Bucks Students' Union, including the Students' Union Advice Centre which offers free and confidential advice on University processes.

9. Programme monitoring and review

BNU has a number of ways for monitoring and reviewing the quality of learning and teaching on your programme. You will be able to comment on the content of their programme via the following feedback mechanisms:

- Formal feedback questionnaires and anonymous module 'check-ins'
- Participation in external surveys
- Programme Committees, via appointed student representatives
- Informal feedback to your programme leader

Quality and standards on each programme are assured via the following mechanisms:

- An initial event to approve the programme for delivery
- An annual report submitted by the External Examiner following a process of external moderation of work submitted for assessment
- The Annual Monitoring process, which is overseen by the University's Education Committee
- Review by the relevant PSRB(s)
- Periodic Subject Review events held every five years
- Other sector compliance and review mechanisms

10. Internal and external reference points

Design and development of this programme has been informed by the following internal and external reference points:

- The Framework for Higher Education Qualifications (FHEQ)
- The QAA Subject Benchmark Statement see detailed mapping below
- The PSRB Standards of Proficiency
- The BNU Qualifications and Credit Framework
- The BNU Grading Descriptors
- The University Strategy

Mapping of Subject Benchmark Statement and any relevant Apprenticeship Standard to Programme Learning Outcomes

Subject Benchmark Statement / Apprenticeship Standard:		wledg erstar				Ana (C)	lysis	and C	ritica	lity	App (P)	licatio	on an	d Pra	ctice	Transferable skills and other attributes (T)					
Benchmark / Standard requirement	K1	K2	К3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5	
Engineering																					
Be pragmatic, taking a systematic approach and the logical and practical steps necessary for often complex concepts to become reality			x			х		х		х			х					х			
Seek to achieve sustainable solutions to problems and have strategies for being creative, innovative and overcoming difficulties by employing their skills, knowledge and understanding in a flexible manner	x	х		х		х	х	x					х				x	x	X		
Be skilled at solving problems by applying their numerical, computational, analytical	х		х	х			х	х	х		х						х				

Subject Benchmark Statement / Apprenticeship Standard:		wledç erstai	-			Ana (C)	lysis	and C	ritica	lity	App (P)	lication	on an	d Pra	ctice	Transferable skills and other attributes (T)					
Benchmark / Standard requirement	K1	K2	К3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	Т5	
and technical skills, using appropriate tools																					
Be risk, cost and value- conscious, and aware of their ethical, social, cultural, environmental, health and safety, and wider professional responsibilities				x	X				x		Х		X					x	X		
Be familiar with the nature of business and enterprise in the creation of economic and social value				х	X	х		X					х	X		Х		х			
Appreciate the global dimensions of engineering, commerce and communication	х		х	х		х		х				х	х				х		х	х	
Be able to formulate and operate within appropriate codes of conduct, when faced	х							х		Х		х	х					х	Х	х	

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Subject Benchmark Statement / Apprenticeship Standard:		wledg erstar	•			Ana (C)	lysis :	and C	ritica	lity	App (P)	licatio	on an	d Pra	Transferable skills and other attributes (T)						
Benchmark / Standard requirement	K 1	K2	K3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5	
with an ethical issue																					
Be professional in their outlook, be capable of team working, be effective communicators, and be able to exercise responsibility and sound management approaches					X			Х	x		Х	х	X			X	X	x	x	X	

Mapping of Subject Benchmark Statement and any relevant Apprenticeship Standard to Programme Learning Outcomes

Subject Benchmark Statement / Apprenticeship Standard:		wledg erstar				Ana (C)	lysis	and C	ritica	lity	App (P)	licatio	on an	d Pra	ctice	Transferable skills and other attributes (T)					
Benchmark / Standard requirement	K1	K2	K3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5	
Construction Management																					
demonstrate an understanding of the key concepts, theories and principles used in construction and the management of construction	х	x	х	x	x	х			x		х		x	x						X	
identify the appropriate stakeholders involved in the construction process and their relevant roles and responsibilities	Х	x						x	x		x	x		x	x				х		
describe the context in which the process of construction operates, including the legal, business, social, economic, health and		Х	Х		Х				Х	Х	Х		Х	Х				Х		Х	

Subject Benchmark Statement / Apprenticeship Standard:		wledç erstaı	-			Ana (C)	lysis	and C	ritica	lity	App (P)	licatio	on an	d Pra	ctice	Transferable skills and other attributes (T)					
Benchmark / Standard requirement	K1	K2	K3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5	
safety, cultural, equality and inclusion, technological, physical, environmental and global influences, including the relationship to digital technologies																					
recognise the collaborative linkages and interdisciplinary relationships between the functions of construction and the other disciplines of the built environment				х	Х				Х	Х		Х	х					Х		х	
recognise the various construction technologies and specialisms relevant to the construction of assets for lifetime performance	х	х		х		х	х	х			х		х		х			х			
recognise the appropriate generic and bespoke	Х	Х	Х		Х	Х	Х	Х	Х	Х			Х							Х	

Subject Benchmark Statement / Apprenticeship Standard:		wledç erstar	-			Ana (C)	lysis	and C	ritica	lity	Application and Practice (P)						Transferable skills and other attributes (T)					
Benchmark / Standard requirement	K1	K2	K3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5		
software that supports construction and digital construction																						
recognise the regulatory systems within which construction operates, including building and planning regulations	х	х	х			х	х				Х	х	х				х	X	х	X		
appreciate the importance of sustainability within the context of the built environment, including the quality of life theme		х		х		х		х					х									
recognise the importance of professional ethics, their impact on the operation of the profession and their influence on society, conflict avoidance/dispute resolution, communities					х			х	х		х	х	х			х		х	х			

Subject Benchmark Statement / Apprenticeship Standard:	Knowledge and understanding (K)						lysis	and C	ritica	lity	Application and Practice (P)						Transferable skills and other attributes (T)					
Benchmark / Standard requirement	K 1	K2	K3	K4	K5	C1	C2	C3	C4	C 5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	Т5		
and the stakeholders with whom they have contact																						
demonstrate an understanding of the principles and processes that deliver an inclusive environment recognising the diversity of user needs by putting people (of all ages and abilities) at the heart of the construction management process.	х			х		х		х	х			х	х		х			X				
Intellectual Skills																						
Practical Skills		Х			Х						Х	Х	Х	Х	Х	Х	Х					
Analytical and data Interpretation skills Communication skills	х	Х	Х	X		х	х	х		x		x	Х	Х						X		
Digital literacy skills	х	х	х	^		х	х		х	x		^	х		х			Х		x		

Subject Benchmark Statement / Apprenticeship Standard:	Kno und	Ana (C)	lysis :	and C	ritica	lity	App (P)	licatio	on an	d Prac	ctice	Transferable skills and other attributes (T)								
Benchmark / Standard requirement	K1	K2	K3	K4	K5	C1	C2	C3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5
Interpersonal and teamwork sills																				
Self-management and professional development skills										Х					Х	Х	Х	Х	х	

Mapping of Programme Learning Outcomes to Modules

Programme Learning Outcome	Knowledge and understanding (K)					Analysis and Criticality (C)					App (P)	licatio	on an	d Pra	ctice	Transferable skills and other attributes (T)					
Module Code (Core)	K 1	K2	K3	K4	K5	C1	C2	C3	C4	C5	P1	P2	Р3	P4	P5	T1	T2	Т3	T4	T5	
Level 4																					
Science and Materials for Designers	х	х					х			х	х		х			Х		х		х	
Building Construction Technology	х	х	х	х		х		х		Х	х		х					х		х	
Building Design, Drawings and Measurement	х			х				х	х		х		х							х	

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Programme Learning Outcome	Knowledge and understanding (K)						lysis	and C	Critica	lity	Application and Practice (P)						Transferable skills and other attributes (T)					
Module Code (Core)	K1	K2	К3	K4	K5	C1	C2	СЗ	C4	C5	P1	P2	Р3	P4	P5	T1	T2	Т3	T4	T5		
Principles of Construction Management		х		х	х				х	х		х	х	х	х	х			х	х		
Mathematics and Surveying	х		х				х			х												
Building Regulations and Legal Contexts	х		х				х				х	х	х	х				х		х		
Level 5																						
Advanced Construction Technology	х	х	х	х		х		х		х	х		х					х		х		
Industrial Skills in Sustainability		х		х				х	х			х	х	х		х	х	х	х	х		
Management Strategies, Economics and Finance				х	х				х			х	х	х						х		
Structural Analysis and Design	х	х	х	х		х	х				х	х	х							х		
Heating, Ventilation and Air-Conditioning Systems	х	х	х	х		х	х				х	х	х							х		
Electrical Design and Installation	х	х	х	х		х	х				х	х	х							х		
Level 6																						
Research Dissertation			Х	Х	Х	х	х		х	Х	Х	х	Х	Х	х	Х	Х	Х		х		

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Programme Learning Outcome Knowledge and understanding (K)						Ana (C)	lity	Application and Practice (P)						Transferable skills and other attributes (T)						
Module Code (Core)	K1	K2	K3	K4	K5	C1	C2	C 3	C4	C5	P1	P2	P3	P4	P5	T1	T2	Т3	T4	T5
Procurement and Contracts Management					х				х	х	х	х	х	х				х	х	х
Structural Design of Buildings	Х	х	х	Х		х	х				Х	х	х							х
Group Project	х	Х	Х	х	Х	Х	Х	Х	Х		Х	Х	Х		х	Х		Х	Х	Х
Professional Practice					Х					Х		Х		Х	Х	Х	Х	Х	Х	Х