UNIVERSITY COLLEGE
OF ESTATE MANAGEMENT

Surveying Technician Diploma

Programme Specification

Academic year September 2018 to August 2019

Reference:
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Summary Programme Details

Final Award	
Award:	Diploma
Title of (final) Programme	Surveying Technician
Credit points:	45
Level of award (QAA FHEQ):	Level 3
Intermediate award(s)	
Intermediate award one:	N/A
Credit points:	N/A
Level of award (QAA FHEQ):	N/A
Intermediate award two:	N/A
Credit points:	N/A
Level of award (QAA FHEQ):	N/A
Validation	
Validating institution:	University College of Estate Management (UCEM)
Faculty	Academic Apprenticeships
Date of last validation:	October 2015
Date of next periodic review:	October 2020
Professional accreditation / Recognition	
Recognising* body:	Royal Institution of Chartered Surveyors (RICS) *The programme is recognised by the RICS as meeting the requirements of the surveying technician apprenticeship standard, and can lead to Associate membership of RICS (AssocRICS).
Date of last programme recognition	N/A
Date of next periodic review:	N/A

Miscellaneous	
Regulatory alignment	N/A as a level 3 qualification it is aligned with the Regulated Qualifications Framework (RQF) by the Office of Qualifications and Examinations Regulation (Ofqual) please click here.(accessed 22/09/2016) This superseded the Qualifications and Credit Framework (QCF)- which has helped in framing the size of the qualification as this was in place at the time BIS signed of the apprenticeship framework. Please click here for the regulatory arrangements for the QCF. (accessed 22/09/2016)
Date of commencement of first delivery	January 2016
Duration	Two years
Maximum period of registration	Apprentice Students are normally expected to complete within two years, unless a break in learning has been agreed. The maximum period of registration to the programme is three years. Any period during which students have taken a break in learning are included in the maximum three-year period.
UCAS Code	N/A
Programme Code	UDS3BSS/UDS3QSS/UDS3RES
Other coding as required	N/A

Programme Overview

Rationale
This programme is designed to provide the educational component of a Surveying Technician Apprenticeship, and is a pre-requisite to end point assessment, along with other elements of their apprenticeship, prior to becoming Associate members of RICS (AssocRICS). It is mapped against the requirements of the Surveying Technician Standards, and approved by the Department for Business Information and Skills (BIS). UCEM's strategic aim is to provide *"accessible, flexible and cost-effective online education producing leading talent for a better Built Environment."* It is the Institution's fundamental mission to widen access to the property surveying and real estate sectors so that the profession benefits from the wide range of talent coming through our schools. This programme is an opportunity to offer a supported and engaging learning experience to all aspiring surveyors irrespective of location, background or ability to pay.

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Entry Requirements

For standard entry to this programme students must have:

I. been accepted upon a Surveying Technician Apprenticeship,

and,

II. achieved five GCSEs at Grade C (or at grade 4 under the new grading system) or higher, including maths and English (or have an accepted equivalent maths and English qualification*);

Or,

III. prior attainment at full Level 2** or higher and meet the requirements above for maths and English.

Non-standard applications:

Non-standard applications will be considered where the applicant has:

I. been accepted upon a Surveying Technician Apprenticeship,

II. achieved a minimum of three GCSEs at Grade C/Grade 4 and above (excluding maths and English).

Or,

III. has prior attainment at full Level 2** or higher (excluding maths and English);

And,

IV. has an accepted Level 2 maths or English qualification or higher;

And

V. has, through BKSB initial assessment, demonstrated a working level of Level 2,

VI. *or* a working level of Level 1 and a BKSB Level 1 diagnostic assessment score of at least 75% for the other subject.

Non-standard applicants that are admitted to the programme will be required to achieve

Level 2 Functional Skills in the relevant mathematics or English subject within 12 months of the commencement of the programme.

* As defined in Annex G : Table of equivalent qualifications accepted for the purposes of prior attainment (click here).

**As defined in ILR Specification 2017 to 2018 (click here).

Recognition of prior certificated learning (RPCL) or recognition of prior experiential learning (RPEL) routes into the programme

There is no recognition of prior learning allowed for this Level 3 programme.

Programme progression

Students who successfully complete this qualification and the Surveying Technician Apprenticeship may progress to one of UCEM's related BSc (Hons) programmes.

Award Regulations
Level 3 Surveying Technician Diploma Assessment, Progression and Award Regulations and Level 3 Academic and General Regulations for Students Assessments are conducted and awards are conferred in accordance with the UCEM Academic and General Regulations for Students. For UCEM's Academic and General Regulations, please click here.

Career prospects
This programme equips students with grounding in the subject knowledge and study skills required to enable them to enter and work at technician level within the real estate and surveying areas of practice in the property industry. The opportunities available are fairly extensive and include, but are not limited to, the following career paths: • Property agency and management. • Property development. • Contract surveying. • Quantity surveying. • Estimating. • Building surveying. • Residential or commercial property. • Construction project management.

Programme Aims

Programme aims
Through studying the core units and then profession pathway unit options, students will have developed a knowledge and understanding of surveying to support their working in the industry. The programme should provide an excellent bedrock for both working in the surveying profession and further study at higher levels. It ensures that students are prepared with the general knowledge of sustainability, construction technologies, economics, law and health and safety, along with specialisms in one of the following areas: • Valuation; • Residential or Commercial Property; • Planning and Development; • Building Surveying Consultant; • Quantity Surveying.

Market and internationalisation
This programme is intentionally not aimed at an international market as it Is aimed at the apprenticeship market in England.

Learning Outcomes

Having successfully completed the programme, the student will have met the following learning outcomes.

	Level 3	Relevant Units
A – Knowledge and understanding	A3.1 Examine and comprehend the impact of legal systems, law, regulations and codes of practice upon surveying and the built environment. A3.2 Illustrate the principles of the basic technology of construction. A3.3 Appreciate the scope and working of surveying practice and the various career pathways within it, developing specialist knowledge in at least one area.	1,2,3,5a,6a 6b 1,5b,3, All
B – Intellectual skills	B3.1 Assess the impact that sustainable considerations and policies have upon built environments. B3.2 Analyse various possible solutions to surveying problems and determine the best approach to take. B3.3 Apply theoretical models and frameworks to real life scenarios and/or case studies.	1,3,5b, 1,3,5b,5c, 6a,6b 1,4,5a,5c, 6b
C – Subject practical skills	C3.1 Present detailed drawings of both elements of buildings and their layout. C3.2 Apply prescribed standard methodologies to measure, cost and value built environments.	1,5b,5a 4,5a,5b,5c, 6b
D – Key / Transferable skills	D3.1 Communicate appropriately and effectively. D3.2 Apply various numerical techniques. D3.3 Use information technology to collect, sort and present data. D3.4 Work with others in order to achieve a common aim. D3.5 Manage the development of their own learning and academic study skills (with some support).	All 4,5a,5c,6b 1,3,4,5c,6b 1,2,3 All

Programme Structure

Code	Unit	Level	Credits	Core /Elective
MAN3COR	0: Personal Effectiveness	3	3	C
CON3TEC	1: Construction Technology	3	7	C
LAW3LRH	2: Law, Regulations and H&S	3	7	C
DEV3SUS	3: Sustainability	3	7	C
ECO3ECP	4: Economics, Measurement and Data	3	7	C
VAL3VAA	5a: Valuation and appraisal	3	7	E
CON3BPA	5b: Building Pathology	3	7	E
CON3CCP	5c: Costing and Cost Planning of Construction Works	3	7	E
LAW3PPL	6a: Property and Planning Law	3	7	E
CON3TPC	6b: Tendering, Procurement and Contracts	3	7	E

Notes
Electives are to support specialist pathways: (see delivery structure, below, for the guide). BS – Building Surveying. QS – Quantity Surveying. REM – Real Estate Management.

Delivery Structure
Level 3 Surveying Technician Diploma Apprenticeship. 380 Guided Learning Hours (GLH) – one A Level equivalent. Six Units. Four core, two specialist per pathway, plus one Personal Effectiveness skills across both years. Concurrent delivery of three units per year. September – July, 30-week nominally. UCEM will consider other combinations of specialist units that fall outside of the prescribed pathways. This could include any combination of specialist units. Variations would need to be agreed at the point of registration and are made at UCEM's discretion.

GLH Activities
Workshops: 10 approximately monthly workshops (six hours each; total 60 hours).
Virtual Learning Environment (VLE): 20 weeks, 4.5 hours a week, including Computer Marked Assessments (CMAs) (1.5 hours per unit; 30 hours total/unit: total 90 hours).

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GLH Activities
Portfolio work: 20 weeks, 1.5 hours per week (30-hour total).

Year one Curriculum
Unit 1, core: 60 GLH.
Unit 2, core: 60 GLH.
Unit 3, core: 60 GLH.

Assessment
Project Portfolio across all three units.
Three CMAs within stages 3, 5 & 7: VLE-based.

Personal Effectiveness (over both years)
Personal Effectiveness/study skills (IT, numeracy, literacy, reflective practice and online study skills). Note: Personal effectiveness component is a three-credit bearing, supportive additional learning element.

Year two Curriculum
Unit 4, core: 60 GLH.
Unit 5, specialist: 60 GLH.
Unit 6, specialist: 60 GLH.

Assessment
Project Portfolio per unit.
Three CMAs within stages 3, 5 & 7: VLE-based.

Core Units
Unit 1: Construction Technology. Unit 2: Law Regulations and Health and Safety. Unit 3: Sustainability. Unit 4: Economics, Measurement and Data.

Pathways
BS – Building Surveying. QS – Quantity Surveying.

Pathways
REM – Real Estate Management.

Specialist Units
Unit 5: BS – Building Pathology. REM – Valuation and Appraisal. QS – Costing and Cost Planning of Construction Works. Unit 6: BS & QS – Procurement and Contracts. REM – Property and Planning Law.

Unit Summaries
Core Units 0: Personal Effectiveness: This unit is designed to provide students with the opportunity to develop reflective practice skills for personal development, particularly for academic skills required to study both online and to meet the needs of the qualification.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2	Portfolio	1,200	40%	100%

1: Construction Technology
This unit is designed to provide students with a basis of understanding why buildings are built using the techniques, methods and materials commonly utilised, which then leads to an examination of the reasons why such low-rise structures can fail to perform the function required.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

2. Law, Regulations and Healthy and Safety
This unit is designed to provide students with an understanding of the English legal system, the basics of contract and tort law, an appreciation of the laws and regulation relating to Health and Safety (H&S), and other regulations and codes of practice affecting the built environment.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

3. Sustainability
This unit is designed to provide students with an understanding of the concepts of sustainability, the importance to the built environment and how legislation and regulation are used to promote it.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

4. Economics, Measurement and Data
This unit is designed to provide students with an understanding of the basic principles of economics, measurement and data collection, and their applications to construction and the built environment.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

Unit Summaries
Elective, Specialist Units Students will study specialist, elective units, one of 5a, b or c, and one 6a or b according to their selected pathway, or as otherwise agreed by UCEM at the point of registration.

5a. Valuation and Appraisal
This unit is a specialist, elective unit for students on the real estate management pathway, designed to enable students to examine the reasons for standard methods of valuation, how they work and why they should be used, and then to use the methods to provide both capital and rental valuations.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

5b. Building Pathology
This unit is a specialist, elective unit for students on the building surveying pathway, designed to enable students to understand the reasons why buildings fail and to recognise and diagnose causes and mechanisms of the failure.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

5c. Costing and Cost Planning of Construction Works
This unit is a specialist, elective unit for students on the quantity surveying pathway, designed to provide students with an understanding of standard approaches to the production of and the use of costing and cost plans for construction works.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

6a. Property and Planning Law
This unit is a specialist, elective unit for students on the real estate management pathway. It allows students to take a further look at law, as applied to land property and planning.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

6b. Tendering, Procurement and Contracts
This unit is a specialist, elective unit for students on the quantity and building surveying pathways, designed to provide students with an appreciation of tendering and procurement, and associated contracts used in the construction industry.

Unit learning outcomes	Assessment	Word count or equivalent	Pass mark	Weighting
LO1, 2, 3	Computer Marked Assessment (three mini)	500	40%	20%
LO1, 2, 3	Portfolio	2,000	40%	80%

Learning, Teaching and Assessment

Learning & Teaching Strategy
The programme is blended in its approach, effectively using the online content as the knowledge and content store, with a mixture of online activities based on UCEM's VLE and forums to support the development of the learning. The content will represent a mixture of theory and case studies utilising mixed media presentation of audio, video and screen-based presentations; e-Learning, including core texts (such as eBooks and study papers); and quizzes. The VLE sessions for each unit are broken up into eight stages to lead the students through their learning and pace their learning journey. The initial stage ensures the students are ready to learn, and in particular readied for online study. This will include, in their first year, an induction onto the programme. This stage on also incorporates the Personal Effectiveness unit running through both years. The last stage is focused on ensuring all students submit their completed portfolio of evidence (see delivery structure, above). The middle six stages are in designed in pairs based on the specific learning outcomes on the unit. These learning outcomes are then broken down into two learning points per stage, which drive the VLE content, activities and the monthly full day workshop sessions which complement the VLE study. These workshop sessions create the opportunity to apply the concepts, theories, models and engage creatively in the subject matter.

Learning & Teaching Strategy

The workshop coordinator is responsible for facilitating discussions, interacting with students and driving project work. This follows in many ways the flipped learning approach, for which the Flipped Learning Network (2015) provide the following definition:

"Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning, space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter."

By utilising the flipped learning pedagogy to inform the blended learning approach, all units will have a similar feel and unified experience for the students. It will ensure that the students are enabled to approach their learning understanding the needs for each unit.

The middle six stages are made up of approximately:

- six hours guided learning on VLE (including approximately one hour for assessment);
- three hours self-directed study;
- two hours guided learning at during workshops.

Flipped Learning Network (2015). Definition of Flipped learning [online], please click here. [accessed 15/09/2015]

Year one Learning & Teaching Strategy

Workshop	X	X	X	X	X	X	X	X	X
Stage		1	2	3	4	5	6	7	8
Aim	Ind.	Ind.	LO1	LO1	LO2	LO2	LO3	LO3	ALL

Year two Learning & Teaching Strategy

Workshop	X	X	X	X	X	X	X	X	X
Stage		1	2	3	4	5	6	7	8
Aim	Ind.	Ind.	LO1	LO1	LO2	LO2	LO3	LO3	ALL

Learning Diet

Contact & Study Hours:	Total Qualification Time (TQT)	Total Guided Learning Hours (GLH)
	450	318

Assessment Strategy

The approach to assessment is also a blended approach. On each unit students have formative assessment activities in the form of quizzes housed on the VLE, Computer Marked Assessments (CMAs) provide an element of summative assessment which contributes 20% to each unit, mainly testing knowledge and understanding. CMAs comprise of multiple choice questions and take place within stage 3, stage 5 and stage 7. The middle six stages are designed to meet the learning outcomes (see delivery structure) in pairs. The first of the pair providing formative assessment through quizzes and the latter of the pair providing summative assessment through CMAs.

The VLE based discussion forums are used to enable students to interact and discuss their learning with each other, which is particularly important in the blended approach undertaken.

The main portion of assessment comes in the form of portfolios of evidence which are produced throughout the study on the units. This portfolio-based assessment strategy fulfils the requirements for the assessment plan for the Level 3 Surveying Technician Diploma Apprenticeship. Much of the content will be produced by the individual in working alone, but informed by the workshop sessions and associated group work which enables the exploration and engagement with the learning. Students are required to submit assessments in accordance with specified timescales.

In the first year of the programme, the portfolio of evidence is based upon a single project scenario which the students will be working upon. The scenario is based upon the development of a low-rise property; the students will work collectively in groups and individually on certain elements to incorporate all the learning outcomes from the respective units studied.

In the second year, the students have a choice of unit options for two of the three units and each unit has its own portfolio. These projects will demonstrate and evidence the attainment of the learning outcomes of the units. Additionally, this will support onward attainment of AssocRICS following successful completion of the Level 3 Diploma.

Year one Assessment Strategy

Workshop	X	X	X	X	X	X	X	X	X
Stage		1	2	3	4	5	6	7	8
Aim	Ind.	Ind.	LO1	LO1	LO2	LO2	LO3	LO3	ALL
Summative CMAs		MAN	X		X		X		

Year two Assessment Strategy

Workshop	X	X	X	X	X	X	X	X	X
Stage		1	2	3	4	5	6	7	8
Aim	Ind.	Ind.	LO1	LO1	LO2	LO2	LO3	LO3	ALL
Summative CMAs				X		X		X	

Assessment Diet:

Seven Credit units,

Year one

- Project portfolio (covering the three Units) - 80% per unit, and,
- Three CMAs - 20% per unit.

Year two

- Portfolio of evidence - 80% per unit, and,
- Three CMAs - 20% per unit.

Personal Effectiveness

- Three-credit unit.

Year one and Year two

- Portfolio of evidence - 100%

Study support: Induction Unit

Level 3 Induction Unit:

Level 3 students are expected to complete induction activities within Unit 0: Personal Effectiveness. The activities are designed to equip students with the skills they need to study at UCEM. Resources within the personal effectiveness unit are available to the students through the duration of their study with UCEM.

In addition to the activities within the Personal Effectiveness unit, Level 3 students will receive an introductory workshop for induction purposes, which will take place prior to formal commencement of their studies.

Student Learning Support

The programme is delivered via UCEM's Virtual Learning Environment (VLE), and academic teaching and support is provided online and through face-to-face workshops, giving students access to UCEM tutors and other students.

UCEM Student Central will act as the main point of contact for students throughout the duration of their programme. The academic team will guide and support students' learning. Other UCEM teams provide support for coursework, exams and technical issues, including Information and Communication Technology. Each student, wherever their location, will have access to a wealth of library and online materials to support their studies.

English Language Support

For those students whose first language is not English, or those students who wish to develop their English Language skills, additional support is provided through online resources on the VLE in the resource 'Developing Academic Writing'.

The resource includes topics such as sentence structure, writing essays and guidance for writing aimed at developing students study skills.

Personal and Professional Development

The incorporation in the programme of a three-credit bearing additional learning unit on Personal Effectiveness is designed to ensure that the student reflects upon their own abilities and what they themselves need to do to improve. It is in effect a driver for personal academic development. Having identified areas of focus, whilst not part of the programme or its units, students are provided with access to a range of study development materials.

This programme is part of an apprenticeship, principled upon developing the students personally with the skills and knowledge required for a career as a technician surveyor, and an understanding of the requirements of the work place. Learners are provided with the opportunities to develop an understanding of fundamental British Values, risks they might face in their lives, and how to keep themselves safe – helping them to become valuable members of society. The development of professional skills for the workplace, and in particular the necessary understanding and consideration of ethical practices, runs through all units on this programme. Consideration and application of these issues occur in the workshops, as students work on scenarios and compile their e-portfolios.

Programme Specific Support

As a blended learning programme, the students are in regular monthly workshops with tutors, to support their progress through their studies. The Personal Effectiveness unit covering additional learning provides support and academic materials for academic writing, numeracy, information communication technology and reflective practice.

QAA Benchmark Mapping

N/A as a level 3 qualification it is aligned with RQF – Ofqual, please click here.(accessed 22/09/2016)

This sets out a level 3 qualification as:

Knowledge descriptor (the holder…)

Has factual, procedural and theoretical knowledge and understanding of a subject or field of work to complete tasks and address problems that while well-defined, may be complex and non-routine. Can interpret and evaluate relevant information and ideas. Is aware of the nature of the area of study or work. Is aware of different perspectives or approaches within the area of study or work.

Skills descriptor (the holder can…)

Identify, select and use appropriate cognitive and practical skills, methods and procedures to address problems that while well- defined, may be complex and non-routine. Use appropriate investigation to inform actions. Review how effective methods and actions have been.

Please click here for the Total Qualification Time Criteria (Ofqual, September 2015).

PSRB Benchmark Mapping

The below table maps the programme and its units against the approved apprenticeship framework and assessment plan.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
		CORE KNOWLEDGE	**CORE SKILLS**	**CORE KNOWLEDGE**	**CORE SKILLS**
CORE Units	**Learning Outcomes**			CK 6 Construction Technology	CS 4 Construction Technology
Unit 1: Construction Technology	LO1: Illustrate low-rise domestic building construction techniques and services, and identify their function within the building they serve.	Describe the technology of low rise buildings including materials.	Apply the principles of construction technology and the environmental performance of materials.	CK6.1 Low rise domestic building construction techniques and services.	CS4.1 Read and interpret design drawings.
	LO2: Identify construction materials for low-rise domestic buildings given the required function and their properties, including their environmental performance.			CK6.1 Construction materials for low rise domestic buildings.	CS4.2 Identify construction materials for low rise domestic buildings.
	LO3: Recognise the main principle causes of building failure.			CK6.2 Principles of building failure.	CS4.3 Identify causes of failure in construction materials and assess their performance.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
				CK 1 Law	CS3 Law
Unit 2: Law Regulations and Health and Safety	LO1: Describe and discuss the workings of the English legal system.	Outline the English legal system, law of contract and law of tort.	Apply the principles of contract law to include either contracts for acquisition/disposal of property, standard forms of building contracts or other property related contracts.	CK1.1 The English legal system.	CS3.1 Apply contract law to either contracts for acquisition/ disposal of property, standard forms of building contracts or other property related contracts.
	LO2: Outline the principles of law of contract and law of tort.			CK1.2 Principles of law of contract.	CS3.2 Take action to avoid professional negligence.
	LO3: Describe the principles and responsibilities relating to Health & Safety imposed by law, codes of practice, building regulations and other regulations affecting the built environment.			CK1.3 Principles of law of tort. This will include duty of care, negligence, nuisance, trespass and remedies.	CS3.3 Demonstrate compliance with legal requirements relevant to the area of practice.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
Unit 2: Law Regulations and Health and Safety				CK4 Health and Safety	CS2 Health and Safety
		Describe the principles and responsibilities imposed by law, codes of practice and other regulations.	Demonstrate the application of health and safety issues and the requirements for compliance.	CK4.1 Principles of health and safety.	CS2.1 Apply health and safety procedures.
				CK4.2 Health and safety legislation.	CS2.2 Demonstrate compliance with health and safety legislation and regulation.
				CK4.3 Codes of practice and regulations.	CS2.3 Personal safety.
				CK3 Economics	
Unit 4: Economics, Measurement and Data	LO1: Describe the implications of the basic principles of economics upon the construction industry, including their effect on property and construction markets.			CK3.1 Basic economic principles.	

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
Unit 4: Economics, Measurement and Data	LO2: Explain principles of measurement and key mathematical principles relating to data collection.	Be aware of economic principles and the operation of economic and property/ construction markets.		CK3.2 The principles of economics markets.	
	LO3: Explain the importance of accuracy of measurement, data management and data confidentiality.			CK3.3 The property and construction market.	
				CK2 Data Collection	CS1 Data Collection
		Explain key mathematical principles, principles of measurement, the importance of accuracy, data management and confidentiality.	Measure and collect data relevant to the surveying discipline.	CK2.1 Key mathematical principles relating to data collection.	CS1.1 Collect relevant data.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
				CK2.2 Principles of measurement and importance of accuracy.	CS1.2 Take measurements.
				CK2.3 Data management and confidentiality.	CS1.3 Provide data to others.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	
				CK5 Sustainability	
Unit 3: Sustainability	LO1: Outline the principles of sustainability.	Explain how and why sustainability seeks to balance economic, environmental and social objectives.		CK5.1 Principles of sustainability - economic, environmental and social.	
	LO2: Explain the importance of sustainability to construction and property.			CK5.2 Sustainability in construction and property.	
	LO3: Describe the impact legislation has upon suitable construction and property.			CK5.3 Legislation and regulation.	

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
				CK7 Personal Effectiveness	CS5 Personal Effectiveness
Personal Effectiveness	LO1: Utilise reflective thinking and practice to assess personal development and development needs.	Explain how to manage own time and tasks, communicate and negotiate effectively.	Manage own time and tasks, communicate and negotiate effectively.	CK7.1 The importance of managing time and tasks.	CS5.1 Manage time and tasks.
	LO2: Identify personal academic skills capabilities and identify areas for improvement.			CK7.2 Effective written and verbal communication.	CS5.2 Communicate effectively.
				CK7.3 Negotiation.	CS5.3 Negotiate effectively.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
Specialist Units					
				CKa Valuation and Appraisal	CSa Valuation and Appraisal
Unit 5 REM: Valuation and Appraisal	LO1: Describe the reasons for undertaking standard processes of valuation.	Describe the reasons for valuations and the methods to provide both capital and rental valuation advice.	Undertake capital and rental valuations and demonstrate involvement with the preparation of client reports. Use a variety of valuation methods and techniques and use the relevant valuation standards and guidance.	CKa.1 Reasons for valuations, Professional Standards and identifying clients' requirements.	CSa.1 Identify clients' requirements.
	LO2: Identify the common methods used to provide capital and rental valuation.			CKa.2 Basic calculations from supplied date for capital and rental valuations in given scenarios.	CSa.2 Impact and measure.

Unit 5 REM: Valuation and Appraisal	LO3: Be guided to undertake simple freehold and leasehold valuations.				
				CKb Building Pathology	CSb Building Surveys
Unit 5 BS: Building Pathology	LO1: Describe the common causes of building material failure.	Be aware of common building defects, including collection of information, measurement and tests.	Undertake surveys, using survey and other information to diagnose cause and mechanisms of failure.	CKb.1 Materials, properties and failure.	CSb.1 Inspect and survey.
	LO2: Recognise reasons for common building defect and how they are diagnosed.			CKb.2 Building performance and failure.	CSb.2 Diagnose defects.
	LO3: Undertake simple surveys and utilise survey information to determine mechanisms of failure.			CKb.3 Common building defects.	CSb.3 Survey analysis.

				CKe Costing and Cost Planning of Construction Works	CSe Costing and Cost Planning of Construction Works
Unit 5 QS: Costing and Cost Planning of Construction Works	LO1: Describe the reasons for standard methods of measurements of construction works.	Be aware of the principles of quantification and costing of construction works and how cost planning assists in the financial control of projects.	Quantification, costing and cost management of construction works, including the use of appropriate standard methods of measurement and forms of cost analysis.	Ce.1 Reasons for the standard methods of measurement.	CSe.1 Use of appropriate standard methods of measurement.
	LO2: Explain the principles of quantification and costing, and their interrelation to the financial control of construction projects.			CKe.2 Principles of cost planning.	CSe.2 Prepare order of cost estimate and cash flow forecast.
	LO3: Utilise standard methods of measurement to quantify simple construction work with associated cost analysis.			CKe.3 Measurement and estimation principles and financial control.	CSe.3 C Application and adjustment of simple historic costs to give scenarios.

		What is required - in the context of land, property and construction:	What is required - in the context of the surveying environment:	Standard and key requirements	Standard and key requirements
				CKc Planning and Property Law	CSc Property and Planning Law
Unit 6 REM: Property and Planning Law	LO1: Explain the principles of land law.	Explain principles of land law, the law of landlord and tenant and planning law.	Apply the law and practice relation to at least two of property, landlord and tenant or planning.	CKc.1 Ownership, registration and rights over land.	CSc.1 Identification of title and rights over land.
	LO2: Explain the principles of the law of landlord and tenant.			CKc.2 Lease types, lease terms and termination.	CSc.2 Identification of lease terms, duties and rights.
	LO3: Explain the principles of planning law.			CKc.3 Principles of planning law.	CSc.3 Implementation of planning law principles.
				CKd Procurement and Contracts	CSd Tendering and Procurement
Unit 6 BS & QS: Tendering, Procurement and Contracts	LO1: Describe the main types of procurement and tendering processes used in the construction industry.	Describe the main types of procurement and tendering, and the various forms of contract used in the construction industry.	Implement procurement routes selected for projects and carrying out tendering processes relevant to them.	CKd.1 Principles of procurement, tendering and evaluation.	CSd.1 Identification of appropriate procurement routes.

Unit 6 BS & QS: Tendering, Procurement and Contracts	LO2: Describe the various forms of contract used in the construction industry.			CKd.2 Knowledge of alternative forms of contract and their appropriate use.	CSd.2 Implementation of appropriate contract selection.
	LO3: Investigate the use of procurement, tendering and contracts used on construction projects.			CKd.3 Appreciation of alternative construction contracts and their provisions.	CSd.3 Use of contract provisions to administer the project effectively.