QAA

Subject Benchmark Statement

Land, Construction, Real Estate and Surveying

October 2016

UK Quality Code for Higher Education
Part A: Setting and maintaining academic standards

Contents

How can I use this document?

This document is a Subject Benchmark Statement for Land, Construction, Real Estate and Surveying that defines what can be expected of graduates in the subjects, in terms of what they might know, do and understand at the end of their studies.

You may find the document helpful if you are:

- involved in the design, delivery and review of programmes of study across a range of land, construction, real estate and surveying or related subjects
- an external examiner and/or academic reviewer
- a prospective student thinking about studying land, construction, real estate and surveying, or a current student of the subject, to find out what may be involved
- a career advisor within schools, colleges or universities including those advising overseas students wishing to apply to UK built environment programmes
- an employer or professional body, wishing to find out about the knowledge and skills generally expected of a graduate in Land (including marine), Construction, Real Estate and Surveying.

Explanations of unfamiliar terms used in this Subject Benchmark Statement can be found in the Quality Assurance Agency for Higher Education's (QAA's) glossary.[1]

[1] The QAA glossary is available at: www.qaa.ac.uk/about-us/glossary.

About Subject Benchmark Statements

Subject Benchmark Statements form part of the UK Quality Code for Higher Education (Quality Code) which sets out the Expectations that all providers of UK higher education reviewed by QAA are required to meet.[2] They are a component of Part A: Setting and Maintaining Academic Standards, which includes the Expectation that higher education providers 'consider and take account of relevant Subject Benchmark Statements' in order to secure threshold academic standards.[3]

Subject Benchmark Statements describe the nature of study and the academic standards expected of graduates in specific subject areas, and in respect of particular qualifications. They provide a picture of what graduates in a particular subject might reasonably be expected to know, do and understand at the end of their programme of study.

Subject Benchmark Statements are used as reference points in the design, delivery and review of academic programmes. They provide general guidance for articulating the learning outcomes associated with the programmes but are not intended to represent a national curriculum in a subject or to prescribe set approaches to teaching, learning or assessment. Instead, they allow for flexibility and innovation in programme design within a framework agreed by the subject community. Further guidance about programme design, development and approval, learning and teaching, assessment of students, and programme monitoring and review is available in Part B: Assuring and Enhancing Academic Quality of the Quality Code in the following chapters:[4]

- *Chapter B1: Programme Design, Development and Approval*
- *Chapter B3: Learning and Teaching*
- *Chapter B6: Assessment of Students and the Recognition of Prior Learning*
- *Chapter B8: Programme Monitoring and Review*.

For some subject areas, higher education providers may need to consider other reference points in addition to the Subject Benchmark Statement in designing, delivering and reviewing programmes. These may include requirements set out by professional, statutory and regulatory bodies, national occupational standards and industry or employer expectations. In such cases, the Subject Benchmark Statement may provide additional guidance around academic standards not covered by these requirements.[5] The relationship between academic and professional or regulatory requirements is made clear within individual statements, but it is the responsibility of individual higher education providers to decide how they use this information. The responsibility for academic standards remains with the higher education provider who awards the degree.

Subject Benchmark Statements are written and maintained by subject specialists drawn from and acting on behalf of the subject community. The process is facilitated by QAA. In order to ensure the continuing currency of Subject Benchmark Statements, QAA initiates regular reviews of their content, five years after first publication, and every seven years subsequently.

---

[2] The Quality Code, available at www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code, aligns with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area*, available at: www.enqa.eu/wp-content/uploads/2015/05/ESG_endorsed-with-changed-foreword.pdf.

[3] Part A: Setting and Maintaining Academic Standards, available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-a.

[4] Individual chapters are available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-b.

[5] See also further Part A: Setting and Maintaining Academic Standards, available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-a.

Relationship to legislation

Higher education providers are responsible for meeting the requirements of legislation and any other regulatory requirements placed upon them, for example by funding bodies. The Quality Code does not interpret legislation nor does it incorporate statutory or regulatory requirements. Sources of information about other requirements and examples of guidance and good practice are signposted within the Subject Benchmark Statement where appropriate. Higher education providers are responsible for how they use these resources.[6]

Equality and diversity

The Quality Code embeds consideration of equality and diversity matters throughout. Promoting equality involves treating everyone with equal dignity and worth, while also raising aspirations and supporting achievement for people with diverse requirements, entitlements and backgrounds. An inclusive environment for learning anticipates the varied requirements of learners, and aims to ensure that all students have equal access to educational opportunities. Higher education providers, staff and students all have a role in, and a responsibility for, promoting equality.

Equality of opportunity involves enabling access for people who have differing individual requirements as well as eliminating arbitrary and unnecessary barriers to learning. In addition, disabled students and non-disabled students are offered learning opportunities that are equally accessible to them, by means of inclusive design wherever possible and by means of reasonable individual adjustments wherever necessary.

[6] See further the *UK Quality Code for Higher Education: General Introduction*, available at: www.qaa.ac.uk/publications/information-and-guidance/publication?PubID=181.

About this Subject Benchmark Statement

This Subject Benchmark Statement refers to bachelor's degrees with honours in Land, Construction, Real Estate and Surveying.[7]

This version of the Statement forms its third edition, following initial publication of the Subject Benchmark Statement in 2002 and review and revision in 2008.[8]

Note on alignment with higher education sector coding systems

Programmes of study, which use this Subject Benchmark Statement as a reference point, are generally classified under the following codes in the Joint Academic Coding System (JACS).[9]

D440 (Rural estate management)
F720 (Hydrography)
F732 (Oceanographic survey & monitoring)
H223 (Environmental impact assessment)
H240 (Surveying science)
H241 (General practice surveying)
H242 (Engineering surveying)
J150 (Minerals surveying)
K200 (Building)
K210 (Building technology)
K220 (Construction management)
K230 (Building surveying)
K240 (Quantity surveying)
K250 (Conservation of buildings)
K251 (Property development)
K290 (Building not elsewhere classified)
K440 (Urban studies)
K450 (Housing)
K900 (Others in architecture, building & planning)
K990 (Architecture, building & planning not elsewhere classified)
K000 (Architecture, building & planning)
N213 (Project management)
N230 (Land & property management)
N231 (Land management)
N232 (Property management)
N234 (Property valuation & auctioneering).

[7] Bachelor's degrees are at level 6 in *The Framework for Higher Education Qualifications in England, Wales and Northern Ireland* and level 10 in *The Framework for Qualifications of Higher Education Institutions in Scotland*, as published in *The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies*, available at: www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/qualifications.
[8] Further information is available in the *Recognition scheme for Subject Benchmark Statements*, available at: www.qaa.ac.uk/publications/information-and-guidance/publication?PubID=190.
[9] Further information about JACS is available at: www.hesa.ac.uk/content/view/1776/649.

Summary of changes from the previous Subject Benchmark Statement (2008)

This latest version of the Statement is the product of a wide-ranging review, which was carried out in order comprehensively to reflect on and consider changes of context and other factors that might prompt amendments to the 2008 Statement.

The review group responsible for the work included experienced academics, who are also members of professional bodies, a student reader, and an employer representative. In addition, members of the review group sought feedback from existing students at their own institutions and from employer groups. Initial comments were also sought from the leader of the government's Built Environment Professional Education project, which advises on how to make inclusive use and design an essential part of education and training for built environment professionals.

A concerted effort was made to provide more detailed guidance across the full range of subjects represented in this Statement, including areas not previously well documented, such as land and marine management, rural land management, and planning and development.

The name of the Statement has been changed. It now incorporates 'Land' in order to reflect the essential foundation this resource has with the built environment and because of its relationship with green and grey infrastructure that supports construction and real estate. The term 'property' has been replaced with the more contemporary and increasingly widely used phrase of 'real estate'.

All sections of the Statement have been substantially modified to allow the current version to reflect the wider social significance of land, construction, real estate and surveying within the built environment. The emergence of digital technologies as a major driver of change in the construction industry has been recognised by the incorporation of new content. The principles of inclusive use and design, and the processes needed to design, build and manage accessible and inclusive buildings, places and spaces have been embedded throughout the Statement.

The benchmark standards have been substantially revised in recognition of new and emerging pedagogies. The further development of threshold, typical and excellent standards for the generic skills and subject specific knowledge and understanding is a significant improvement to previous Statements.

The benchmark revision group would like to acknowledge the significant contribution made to this Statement by Dr Andrew Platten who died shortly before the review was completed. His insights on how the revised statement could reflect the current context for construction programmes were invaluable, and the final version would be much poorer without his input.

1 Introduction

1.1 The purpose of this Statement is to make explicit the nature and the standard of bachelor's degrees with honours in the subject areas of the built environment related to Land, Construction, Real Estate and Surveying. This Statement is not intended to be prescriptive; instead, it should be used for guidance and to support the creation of a common understanding of standards and programme objectives.

1.2 The subjects covered by this Statement are associated with the development of a sustainable built environment. The professions associated with these subjects have a vital role to play in shaping, maintaining and adapting the built environment, the property and buildings that exist within this environment, and thereby in influencing the quality of life and the way people live their lives.

1.3 Land, Construction, Real Estate and Surveying represent major subjects involved in this process, but it is acknowledged that professionals working in these disciplines need to interact and work with those in related subjects, such as planners, engineers, designers and architects. As such, a key feature of the Statement is its interdisciplinary and multidisciplinary character. Graduates from these programmes have a good understanding of the other subjects that support the process of planning, design, financing, construction, development, use and management of real estate and infrastructure.

1.4 Meeting the standards described in this Statement does not automatically mean that programmes will be eligible for professional accreditation. Those designing programmes and wishing to pursue programme accreditation are advised to consult with the relevant professional bodies as well as using this Statement.

1.5 It is recognised that aspects of the curriculum for this subject will overlap with other Subject Benchmark Statements including Architecture, Architectural Technology and Town and Country Planning. Those seeking a full understanding of the subjects should therefore read this Statement alongside others also relating to the built environment.

1.6 It is anticipated that this Statement will help to reshape programmes across the built environment by providing those responsible for designing, managing and studying such programmes with a practical and educationally coherent document.

2 Defining principles

2.1 Everyone is impacted by and impacts on land, construction, real estate and surveying. We live, work and play in the built and natural environment; we depend on both the natural and developed environments for the production of food and manufactured goods and as the locus for human activity. Within the UK and much of the developed world, people spend a large majority of their time on land or in buildings. This means that the professionals who work with land and buildings have a unique opportunity to inclusively shape the way that people live their lives.

2.2 This Statement refers to a group of subjects, which collectively are often known as the 'built and natural environment'. All programmes covered by this Statement have connections with other subjects associated with the environment and its buildings and associated infrastructure, including architecture, landscape architecture and architectural technology, housing, and town and country planning. Accordingly, most graduates of the subjects covered by this Statement will work alongside individuals with academic backgrounds in the related subjects listed as well as, in many cases, lawyers, accountants, civil engineers and environmental scientists.

2.3 All programmes covered by this Statement will require students to gain an understanding of some or many aspects of what is often referred to as the land, construction and real estate life cycle.

2.4 All buildings and their associated use depend on land, and the subjects covered by this Statement concern the use and management of land, the conversion process by which land may be developed, and the subsequent resource and investment management of the buildings so produced. In order to advise adequately on the aspects in which they specialise, graduates acquire knowledge and understanding of many of the principles of measurement and financial evaluation of buildings, building technology, the law pertaining to land, its development and/or management. All this knowledge is placed within a socio-economic context. This allows graduates to appreciate and articulate the ways in which land and buildings impact to produce an inclusive environment for people, businesses and community, a home for investment funds and a respect and responsibility for the environment.

2.5 Where land is converted to other uses, notably by construction, the cycle from inception to redevelopment may take many years. By area, the majority of land is not developed physically, but used for agriculture, forestry and other land-based uses, as well as for either the protection of nature, or the enjoyment of leisure and recreation. Where development takes place it has been estimated by the Building Research Establishment that the average building exists for up to 100 years, and buildings are seldom destroyed due to physical deterioration. More frequently, buildings, are redeveloped where the economic or social context changes or there is a technology breakthrough, meaning that the building is no longer appropriate for the needs of its occupiers. Therefore, the process of construction and any subsequent redevelopment conversion of existing buildings and infrastructure are activities that take place infrequently.

2.6 The processes of constructing new buildings or infrastructure and subsequent use, sales, lettings and transaction, management including investment management, and maintenance/refurbishment take place on an ongoing basis and many professionals specialise in one or more of these processes. Some may give strategic advice to government and investors, notably in relation to the value of assets; others deal with sales or lettings or the physical maintenance and adaptation of buildings and infrastructure. The social consequences of the development and management of land are also acknowledged. In particular, it is recognised that there are often tensions between the

private interests of landowners and occupiers and the public interest. Professional advisers need to be mindful of such tensions and potential conflicts of interest, and work within the requirements of their charter responsibilities.

2.7 Programmes in the subjects contained in this Statement focus, more or less narrowly, on certain aspects of the cycle. Some will be concerned with the decisions leading to the conversion process (for example planning and development surveying); some with the physical change process (for example construction management, and quantity surveying); and some engage in the physical stewardship of buildings (for example building surveyors, conservation and heritage surveyors). Other programmes are concerned with the management of the asset either from an investment viewpoint or from that of the economic and social use of the land or building (for example rural or urban real estate management, valuation and property investment).

2.8 Collectively, the subjects present opportunities to enter into a wide range of employment fields related to land, construction, real estate and surveying, and many carry professional accreditation by one or more of the leading built environment professions. These opportunities exist in both the public and private sectors and with charitable organisations. This Benchmark Statement recognises the global nature of the real estate and construction sectors, acknowledging that many graduates will go on to work for organisations who are based in other countries or who have international activities, often requiring them to work in overseas markets.

3 Nature and extent of Land, Construction, Real Estate and Surveying

3.1 The Bachelor's with honours degree programmes covered by this Statement can be described under the following indicative headings.

Programmes broadly concerned with land and marine management and geomatics

3.2 Land and the oceans are fundamental to most forms of life and to planetary well-being. They are the habitats for the flora and fauna that maintain the eco-system. They are also critical for food production and increasingly for leisure activities. While agriculture forms the subject of another Statement, contained within this Statement are programmes concerned with land and marine management; that is managing the estates on which agriculture, forestry and other land-based activities take place, the buildings connected with agriculture and with the use of land for leisure and cultural purposes and, as a particular specialism, marine and hydrographic surveying. The work of hydrographic surveying is involved with mapping and the interpretation of spatially-related information and calls for high levels of specific technological competence. The surveying specialisms associated with minerals and the environment also play a very important role in this area. Although there are some programmes offered at the bachelor's level, many are only available as master's qualifications.

3.3 Programmes connected with land and marine management include Surveying and Mapping Science and Geographic Information Systems (GIS).

Programmes broadly concerned with rural surveying, rural practice, and agribusiness

3.4 The study of rural estate management and agribusiness is fundamental to society. It is distinct from the study of agriculture, although students need to have a grasp of agriculture in order to evaluate the use of the land and its optimal management. Some programmes in this sub-set deal with the traditional management of farms and rural estates, including the law relating to farm tenancies and valuation of agricultural land; others concentrate on the business of agriculture and other land-based uses and are partly related to business management degrees; still others focus on the management of land for environmental and heritage management.

3.5 Programmes connected with rural surveying include Rural Resources Management, Rural Land Management and Countryside Management.

Programmes broadly concerned with planning and development

3.6 Much land will never come forward for a change of use or development. However, with population growth and increasing wealth and social aspirations comes a demand for buildings for houses, employment (including offices and manufacturing), and for consumption (leisure/retail) together with buildings and, crucially, infrastructure to service such activities (roads, railways, hospitals, schools and so on). These need to be inclusively planned within legal and regulatory frameworks and many graduates from programmes covered by this Statement will be engaged with the decision-making process and implementation at city, district or individual building level. This may include the study of economic and social real estate strategies at the city scale, master planning and place making at the district level, and site appraisal at the individual building level.

3.7 Graduates will work closely with planners and real estate owners. Graduate expertise lies in the economic and social/economic appraisal of schemes and providing insights into the market demand and preferences for development. Graduates have a detailed knowledge and understanding of the land conversion process, development finance, design and use considerations at site and master planning scale, legal frameworks, and technical knowledge of what is/is not feasible and how it can be costed, valued and marketed. They, therefore, work closely with letting and sales agents who understand market demand. However, they also work alongside architects, engineers and other construction experts whose skills and knowledge lie in more detailed design and technical understanding.

3.8 Planning for development can also include planning for redevelopment and/or regeneration, although typically these programmes are offered at master's level.

3.9 Programmes connected with planning for development include Planning and Development, Property and Planning, Property Development and Planning, Urban Planning and Development, Planning and Real Estate Development, and Design Management.

Programmes broadly concerned with the process of construction

3.10 The construction of new developments and refurbishment of existing buildings has three stages: pre-construction in which budgets, costs and designs are finalised; construction, when the work is undertaken; and post construction, which covers the period from practical completion until it is signed off as fully operational and performing as designed.

3.11 A development project may be simple, for example the construction of a single dwelling, or more complex, for example, the creation of a new multi-storey, multi-use building on a constrained city centre site, or a port complex. It may include the redesign and reconfiguration of an outmoded building to bring it up to modern standards to meet demanding energy efficiency and health and well-being considerations.

3.12 In all but the simplest schemes a contractor, along with the client's team, may not only be responsible for selecting the materials needed to develop/refurbish a building, or technologies required to deliver this, but also for coordinating other built environment professionals with expertise in their design, use and occupation.

3.13 The Quantity Surveyor is one such key professional. They advise on cost planning and will 'value engineer' the scheme by calculating the cost efficiency and value of the construction and its design. Increasingly, buildings are designed with the use of advanced computer programmes and expertise in informational modelling rapidly becoming a key requirement within the core curricula of built environment professionals specialising in the construction phase. The increased focus on the whole life performance of buildings and facilities means that building occupiers, facilities managers and building surveyors play a key role in informing the design and construction phase of projects.

3.14 A range of professional representatives, who may be investment surveyors, development surveyors, building surveyors or facility managers, are also able to scrutinise and evaluate the aesthetic, functional and technical attributes of a construction project before it is ready to be put to use.

3.15 A more specialised set of programmes within the construction process includes those concerned with the rehabilitation of historic buildings and their conservation. These are more typically studied at master's level but not exclusively so.

3.17 Programmes connected with the construction process include Construction Management, Construction Project Management, Quantity Surveying, Building Surveying, Historic Building Conservation and Building Information Modelling (BIM).

Programmes broadly concerned with real estate, property and asset management

3.18 These are the generic terms used to describe the whole process of stewardship and management of existing buildings throughout the period from initial construction until their eventual demise. Buildings require maintenance and updating of their fabric and services, in order that they continue to meet the needs of any changes to the legal or regulatory framework and of the occupiers. This work is normally undertaken by property managers, corporate real estate and facilities managers, who along with building surveyors, specialise in understanding how and why the fabric of buildings may decay over time.

3.19 Within the UK, and many developed countries in which real estate professionals work, the majority of the commercial building stock is owned by investors and let out on leases to occupiers. Therefore, the negotiation and management of the relationship between the investor landlord and the occupational tenant is critical and the study of the law and practice of landlord and tenant is fundamental to estate and property management programmes. Where ownership and occupation is split, investment surveyors will advise and monitor the financial performance of the asset for the owner, often working closely with investment analysts advising on other types of investment, while asset managers develop and implement strategies to enhance performance and interact between the landlord and tenant and work closely with lawyers and accountants. Corporate real estate surveyors work for the companies who use space, whether owned or let. Their job is to see that the real estate they use works both efficiently and effectively for the prime activities of their organisation and their business or social mission.

3.20 Throughout the life of a building, an economic value will frequently be required. This may be for tax purposes, for transactions or for the purposes of a balance sheet. This work is carried out by valuers who assess all aspects of value relating to the tenure, demand and physical characteristics of buildings. Others specialise in bringing properties to market for transaction purposes, both on the open market or between companies, or where redevelopment schemes require them to be acquired by the state compulsorily.

3.21 The occupancy and use of buildings normally represents the longest and most significant phase of the real estate cycle in terms of finance, human well-being, inclusion and impact on the environment, as such the variation of knowledge and understanding required of a graduate is very broad. Some programmes, such as estate management, prepare graduates to work across a range of activities connected with the use and management of buildings. Some programmes are more specialised and concentrate on certain aspects such as building surveying, which concentrates on understanding the fabric of the building. Other programmes concentrate on valuation and/or property investment; this involves specialising in the pricing of assets for purposes such as sale or taxation, or in real estate investment, which is concerned with the appraisal of property as a financial asset.

3.22 Programmes connected with real estate, property and asset management include Real Estate, Real Estate Valuation, Property Investment and Finance, Property Management, Property Asset Management, Building Surveying, and Facilities Management.

Common requirements within all programmes

3.23 The information above gives an overview of the wide variety of functions that graduates of Land, Construction, Real Estate and Surveying go on to fulfil. The programmes therefore vary significantly in terms of their curricula. However, there are common threads that run through them and all programmes are, to some extent, multidisciplinary.

3.24 All graduates have an appreciation of the impact of changing social, political, economic (including financial), legal, cultural, environmental, technological, business and political frameworks on the built and natural environment. This understanding supports the ability of practitioners to make an effective contribution within the local, national, European and global context, embracing social, economic and environmental sustainability, including a broad appreciation of how this improves the quality of life for all. Thus, graduates are characterised by an ability to 'see the bigger picture' and context as well as the more focused task before them. They understand the importance of continuous learning and professional development within a variety of often rapidly changing contexts.

3.25 The subject area reflects cultural and social values and the needs of business, social organisations, government and individuals. These factors have a powerful effect upon the lives of individuals, organisations and society as a whole. The processes involved in the production, use, occupancy and management of the built and natural environments are generally labour-intensive and complex in human terms. Hence, the study of land, construction, real estate and surveying develops awareness of health and safety and well-being, the principles of inclusive use and design and the processes needed to achieve an inclusive environment, as well as the legal and ethical responsibilities that enable the diverse needs, sentiments and requirements of all stakeholders to be recognised and valued.

3.26 As most programmes are accredited by professional bodies, many include modules on professional practice, which cover aspects of how professions work and involve practical projects and consideration of professional ethical behaviours. The ability to work in teams to achieve practical solutions and to respect colleagues are fundamental attributes which programmes develop in students through their learning and teaching strategies.

3.27 All programmes require students to study a range of subjects and to be able to integrate the knowledge that they acquire to identify and solve relevant problems and identify opportunities for improvement. Subjects covered may include, as appropriate:

- **Measurement** both quantitatively and qualitatively of land, land and marine resources, and built assets including the financial pricing of investments and buildings for a variety of purposes, and the measurement of land, buildings, construction processes and infrastructure both on plan, through the use of digital information modelling and on-site.
- **Law** relating to the tenure, sale, use and development of land, which could include building control, statutory planning, health and safety, project procurement, land law, the landlord and tenant relationship, contract law, intellectual property rights, dispute resolution, employment legislation, equality and diversity and a range of other subject-specific statutes, case law and secondary legislation.
- **Cost and value theory** and applied economics, including resource allocation models, pricing and valuation methods, investment theory including that relating to financial instruments derived from property, financial management, procurement systems and processes, development viability and appraisal, construction industry economics, value engineering and cost planning, and financial business management.

- **Design** considerations including the functionality and aesthetic quality of different buildings, spaces and places to users, occupants and their owners and managers, both through physical inspection and surveys as well as through the use of digital information modelling, to include an understanding of the responsibilities for ensuring designs are inclusive of all user needs, including those who have disabilities.
- **Construction technology**, including the design, build, demolition, recycling and re-use of buildings. In particular including those aspects of building services performance and, for some, the use of programmes such as information modelling.
- **Management**, including the management of construction and refurbishment projects, ongoing asset management of land, marine or investment properties, design management, construction planning, through the use of digital information modelling incorporating the development of leadership and team working skills and the principles of business management and marketing.
- **Sustainability**, including consideration of how challenges such as climate change and social responsibility impact on the work of professionals and the need to behave ethically in ways which protect quality of life and promote human and planetary well-being, reduce waste and inefficiency in the use of resources, and thereby balance the needs of current and future generations.
- **Ethics, the public interest and professional standards** will also be at the heart of all programmes, which reflect and support the professional bodies that are associated with them.

4 Knowledge, understanding and skills

Introduction

4.1 Given the diversity of award titles and differences in emphasis among individual programmes of study, it is not sensible to list in this Statement all the subjects that might contribute to specific honours degree programmes. Nor is it possible to specify a precise core subject knowledge that is common to all the subjects covered by the Statement. Nevertheless, programmes in these subject areas share common features of structure, approach and pedagogic philosophy. This section describes the general characteristics of the programmes under consideration, with the aim of facilitating and encouraging a diversity of provision across higher education. Each higher education provider is able to map its own provision within this general framework.

4.2 For individual honours degree programmes, the content depends on whether the objective is to produce a graduate who is a 'general practitioner' or a 'subject specialist', that is, a graduate who is skilled in a broad or a narrow range of subjects. The balance between breadth and depth of a graduate's knowledge is similarly variable.

4.3 Nevertheless, all graduates possess an appreciation of the interacting nature of a range of elements, which grows out of a more specialist understanding of some of them. Generally, students develop an ability to synthesise concepts and ideas across subjects and to take a holistic view appropriate to their particular programme and area of study.

Subject-specific knowledge and understanding

4.4 Despite the diversity that the different programme areas cover, they all share a number of important features:

i the relevance and application of the subject
ii the development of integrated, multidisciplinary and interdisciplinary and inter-professional approaches
iii integration of theory, experiment, investigation and fieldwork, and the development of principles into practice
iv quantitative and qualitative approaches to information
v an understanding of the importance of entrepreneurship and innovation including the role of intellectual property within the innovation process
vi awareness of risks of exploitation and the requirement for sustainable processes and outcomes
vii consideration of rapid and continuing change and development of the subjects and their context.

4.5 Each programme addresses:

i its underlying foundations and principles
ii its relevant defining concepts, theories and methods
iii the current knowledge and development of the subject firmly grounded in technological, legal, socio-economic, environmental political and business contexts
iv identification of current gaps in knowledge or understanding and current issues of wider concern to society and the world
v the global, regional and local contexts of practice issues and challenges
vi the location and quality of resources and their procurement, management, sustainable exploitation and pattern of use within socio-economic, public interest, equality and inclusion policy and legal frameworks

vii award-specific and generic skills including problem definition and resolution and a professional approach to study and lifelong learning
viii an understanding of issues of sustainability, quality of life and environmental impact
ix ethics in relation to both academic and professional practice.

Generic skills

4.6 Bachelor's with honours graduates of programmes covered by this Statement are able to:

i demonstrate familiarity with a wide range of subject-specific facts and principles in combination with an awareness of the current limits of theory and applied knowledge
ii understand the provisional nature of problem definition and associated information and allow for competing and alternative explanations within their subject
iii exhibit understanding of the defining elements of the subject as a result of in-depth and/or cross-curricula study or research
iv tackle problems by collecting, analysing and evaluating appropriate qualitative and quantitative information, and using it creatively and imaginatively to solve problems, introduce and develop innovations, and make decisions and follow them through
v plan and execute research or development work, evaluate the outcomes, draw valid conclusions and make recommendations
vi display skills in evaluating and interpreting, in a balanced manner, new information provided by others from a range of fields of study
vii display generic scholarly and award specific professional skills and demonstrate the ability to acquire new competencies required for career progression
viii assess the ethical, equality and inclusion consequences of human activities to optimise community and environmental sustainability.

4.7 The generic abilities and skills developed during the course of Bachelor's with honours degree programmes covered by this Statement can be subdivided into:

- intellectual
- practical
- analytical and data interpretation
- communication
- digital literacy
- interpersonal and teamwork
- self-management and professional development skills.

4.8 These skills are generally developed in a subject-specific context, but have wider applications for continuing personal development and in the world of work.

Intellectual skills

4.9 Honours graduates of programmes covered by this Statement are able to:

i critically analyse, synthesise and summarise information from a variety of sources
ii recognise and use appropriate theories, methodologies, concepts and principles from a range of subjects
iii collect, analyse and integrate several lines of evidence to develop balanced arguments demonstrating critical thinking and synthesis
iv plan and design an experiment, investigation, survey or other means to test a hypothesis or proposition

v apply knowledge and understanding to address multidisciplinary problems within a local and global context
vi demonstrate creativity and innovation
vii demonstrate awareness of the provisional nature of the facts and principles associated with a field of study with those based on opinion and not supported by sound evidence
viii make well considered decisions in complex and unpredictable contexts
ix understand the importance of academic and professional integrity.

Practical skills

4.10 Honours graduates of programmes covered by this Statement are able to:

i plan, conduct and report on investigations, including those using secondary data
ii collect, record and interpret diverse types of information generated by a wide range of methods and summarise it using appropriate qualitative and/or quantitative techniques
iii devise, plan and undertake field, laboratory or other investigations in a responsible, sensitive and safe manner, paying due diligence to risk assessment, ethical and data protection issues, rights of access, and relevant health and safety issues
iv take account of safety regulations, legal requirements including those relating to equality and inclusion, and the impact of investigations on the environment
v appreciate and analyse financial and other management information and use it in decision making
vi acquire programme-specific practical and professional competencies.

Analytical and data interpretation skills

4.11 Honours graduates of programmes covered by this Statement are able to :

i appreciate issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis of data in the field, in the laboratory or collated from secondary sources
ii appreciate and reconcile or mitigate the difficulties of having incomplete information on which to base decisions
iii understand the nature of risk
iv prepare, process, interpret and present information and data, using appropriate qualitative and quantitative techniques and packages
v solve numerical problems using first principles, computer-based and other techniques.

Communication skills

4.12 Honours graduates of programmes covered by this Statement are able to:

i listen and observe attentively, record, evaluate and respond and/or communicate using a wide variety of information sources for example electronic, textual, numerical, verbal, visual/graphical, digital and practical field (site and building) survey based
ii communicate accurately, clearly, concisely, confidently and appropriately to a variety of audiences using a range of formats and employing appropriate scientific and/or professional discipline specific language
iii contribute constructively to group discussions
iv consider, appreciate, evaluate and respect the views of others.

Digital literacy

4.13 Honours graduates of programmes covered by this Statement are able to:

i use the internet in a context which recognises its limitations as a means of communication and a source of information
ii demonstrate competence in the use of electronic information handling and data processing and analysis software and applications through the use of digital information systems (for example BIM and GIS)
iii use a range of IT platforms (for example desktop, server, tablet and mobile) and social media to communicate information to a range of audiences effectively
iv demonstrate an awareness of legal, effective and safe use of digital and social media
v use and interpret digital data and information to inform decision making.

Interpersonal and teamwork skills

4.14 Honours graduates of programmes covered by this Statement are able to:

i organise teamwork and participate effectively in a team
ii set realistic targets
iii identify individual and collective goals and responsibilities
iv plan, allocate and evaluate the work of self, individuals and teams
v perform in a manner appropriate to allocated roles and responsibilities
vi recognise and respect the views and opinions of other team members
vii show positive intent and a willingness to resolve conflict
viii reflect on and evaluate their own performance as an individual or as a team member.

Self-management and professional development skills

4.15 Honours graduates of programmes covered by this Statement are able to:

i develop the skills necessary for self-managed lifelong learning and engagement including for example working independently, effective time management and organisational skills
ii appreciate the need for professional codes of conduct where applicable
iii recognise the moral, ethical, social and equality and inclusion issues related to the programme
iv assume responsibility for their own actions
v identify and work towards targets for personal, academic and career development
vi develop an adaptable and flexible approach to study and work
vii demonstrate the competence, behaviour and attitude required in academic and professional working life, including initiative, reflection, leadership, resilience and team skills
viii behave in an ethical and responsible manner to ensure the rights of others and the wider environment are respected and protected
ix understand the importance of academic, professional and research integrity.

5 Teaching, learning, and assessment

Teaching and learning

5.1 The variety of Land, Construction, Real Estate and Surveying programmes offered by higher education providers has led to a rich variety of teaching, learning and assessment methods being employed. As the group of subjects spans theoretical, practical and professional activities, these methods embrace practical application of theory and the embedding of employability skills. Approaches, such as case studies and development projects using real life examples, simulations, interdisciplinary projects and practical activities (including site visits, laboratory and studio-based work) all are encouraged. Other traditional and innovative forms of assessment are also used with the key requirement being that they are appropriate to, and aligned with, the learning outcomes of the programmes.

5.2 The ultimate goal of student learning is the considered application of knowledge and skills together with an appreciation of the integrative nature of the subject areas in an appropriate context.

5.3 As students progress through an honours degree programme, there is an increasing reliance on student-centred modes of learning, which foster the development of a professional approach to engagement and lifelong learning and provides them with the abilities and skills to work effectively in rapidly changing environments. Most programmes therefore integrate teaching on research skills and employment opportunities to help students gain independence in knowledge acquisition and interpretation.

5.4 All programmes incorporate a research project or other self-motivated individual study leading to a dissertation or report. Programmes thus contain most, but not necessarily all, of the following:

- lectures
- tutorials and seminars
- student-led seminars
- specialist external lectures
- practical classes in and outside laboratory studios and specialist facilities
- literature-based research
- e-learning technologies including the use of virtual learning environments
- case studies
- problem solving
- problem-based learning
- working in multidisciplinary groups and interdisciplinary teams on realistic/live projects with external organisations
- other exercises which require students to integrate information and techniques
- directed self-study
- residential field trips
- international perspectives and experiences for example study trips
- visits to commercial and industrial businesses, consumer organisations, public services, policy-making bodies and research organisations
- opportunities for work experience including construction site experience, for example a managed placement, internships or work-based or work-related learning.

Assessment

5.5 Assessment and feedback are fundamental to measuring and enabling student learning. Assessment contributes to the learning process and is the basis for measuring achievement. Feedback on assessment enables students to progress towards successfully achieving the learning outcomes.

5.6 Assessment methods have a significant influence on the student experience and may take the form of most of, but not necessarily all, of:

- Written examinations including:
    - unseen written examinations
    - open book examinations
    - seen examination papers
    - structured examinations such as multiple choice.
- Coursework assessment including:
    - essays
    - online and class test assessments (including multiple choice, short answer tests)
    - case studies and open problems
    - projects (individual or/and group)
    - debates, discussions and oral tests
    - group and individual presentations
    - seminar presentations
    - laboratory reports
    - practical assessments (including surveying-based assessment)
    - dissertations, and extended or capstone projects
    - portfolios
    - posters.

5.7 While most assessment is conducted by academics, many programmes incorporate peer and self-assessment as well as practitioner assessment in order to promote self-learning, observation, teamwork skills and commercial awareness.

6 Benchmark standards

6.1 In this section, standards of attainment are expressed as statements of learning outcomes. These describe what a student should be able to achieve on completion of an honours degree in the range of subjects covered by this Statement. The outcomes are demonstrable through appropriate assessment strategies. It is recognised, however, that not all learning outcomes can be objectively assessed.

6.2 Preceding sections have emphasised the diversity of honours degree programmes covered by this Statement. Many of the honours degree programmes involve study in more than one subject area and may cover a relatively broad or narrow range of topics. This needs to be considered when evaluating levels of student performance.

6.3 Threshold, typical and excellent standards for bachelor's degrees with honours are specified. These are defined as:

- **threshold standard**: the minimum required to gain an honours degree; graduates at this level demonstrate an acceptable level of ability and skills
- **typical standard**: the level of attainment expected of the majority of honours graduates; such graduates demonstrate definite competence and skills
- **excellent standard**: graduates achieving this standard have a range of competencies and skills at an enhanced level.

6.4 The benchmark standards defined in Table 1 are framed around subject knowledge and understanding and in Table 2 they are framed around the seven main categories of abilities and skills outlined in Section 4.7. These categories do not constitute a checklist, nor does the list imply any particular weighting. Whereas the full range of abilities and skills feature in honours programmes, their point of introduction and the level of engagement is decided by curriculum designers.

6.5 To reach a given standard at the point of completion of an honours degree in the subjects covered by this Statement, students demonstrate achievement across the main categories of abilities and skills in Tables 1 and 2, interpreted for the particular honours degree programme. However, a lower performance in one category may be compensated for by a higher performance in another.

Table 1: Benchmark Standards - Subject-specific knowledge and understanding on graduating with an honours degree in Land, Construction, Real Estate and Surveying

Given the diversity of award titles and differences in emphasis among individual programmes of study, it is not sensible to list all the subject specific knowledge and understanding that might contribute to the full range of honours degree programmes.

	Threshold
6.6.1 **Programmes broadly concerned with land and marine management and geomatics:** **Surveying and Mapping Science**	Graduates have a basic knowledge and understanding of the principles underpinning the study of geomatics including the scientific and mathematical principles involved in data collection, mapping and land and/or marine surveying undertaken for a range of purposes. In so doing they demonstrate reasoned appreciation of the physical, technological, legal, health and safety, environmental and contractual matters relating to the mapping and representation of spatial data and its use. Typically this knowledge and understanding relates to: i the measurement, collection management and application of spatial measurement using a range of land based and digital techniques ii the creation of maps using a range of data collected through some standard techniques including aerial photography and digital techniques iii technologies underpinning problem solving of a wide range of spatial problems iv the scientific and mathematical principles underlying the surveying and mapping techniques v surveying practice for cadastral, topographic, hydrographic and engineering surveys including the use of relevant equipment vi geographic information systems (GIS), global navigation systems satellite systems (GNSS) and other digital systems vii law and regulation relating to health, safety and the environment viii law and regulation relating to planning land tenure and land registration ix the importance of sustainability within the context of the natural environment, x the importance of professional ethics, their impact on the operation of the profession and their influence on the society, communities and the stakeholders with whom they have contact xi working with and the contribution of other land-based professional, experts and stakeholders in the management and development of rural land and property while mitigating negative impacts on the environment

	Threshold
	xii the principles and processes that deliver an inclusive environment recognising the diversity of user needs and the requirement to put people (of all ages and abilities) at the heart of the surveying and mapping science process.
6.6.2 Programmes broadly concerned with rural surveying, rural practice and agribusiness: **Rural Land and Real Estate**	Graduates have a basic understanding and familiarity with the principles underpinning the sale, letting management, development and use of rural land and real estate. They also appreciate the physical, technical, legal, economic and environmental factors affecting its use, development and conservation. Typically this knowledge and understanding relates to: i the place, role and institutional framework of the countryside and rural economy and its relationships with wider urban communities ii surveying, measuring, analysing and evaluating rural land and property from both a market and non-market viewpoint iii the principles, characteristics and organisation of agriculture according to different geographical, soil and climatic conditions iv the principles and systems of farming methods, costs, outputs, yields, current market prices and the use and costs of farm buildings v the range of rural based businesses for example energy production, quarrying, mining, waste management, tourism and leisure and their associated management and development vi rural land use diversification in relation to location and particular markets vii how the rural property market and fiscal policy and taxation affects the value of land and real estate and how valuation methods and techniques of analysis support this viii the range of rural-based industries including energy production, quarrying, mining, waste management, tourism and leisure and their associated management and development ix the importance and role of nature conservation, environmental management biodiversity and the landscape and related eco-system services in land, real estate, general business and community development x the practice of silviculture from seed to harvesting and an understanding of forestry and woodland management policies and grant regimes and its contribution to the economy and sustainability xi how to manage rural land and real estate as property assets from both a user, landlord and tenant perspective and in doing so recognising the importance of managing client and stakeholder relationships xii the contribution planning and property development make to rural land and real estate and the statutory instruments regulating the property market xiii the investment appraisal techniques available to calculate the rates of return that rural land and property command as a class of assets within capital markets

	Threshold
	xiv the impact that farming and other rural land uses have on the environment and initiatives to sustain development by way of, for example, flood mitigation, energy production and savings and through carbon reduction measures designed to reduce global warming and adaptation to climate change xv planning and development of infrastructure in the countryside xvi working with land-based professional, experts and stakeholders in the management and development of rural land and property while mitigating negative impacts on the environment xvii the owner-occupied and rented housing sectors in the rural environment xviii the legal, professional and ethical responsibilities rural land and property experts have to clients, rural communities and the wider urban public xix 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 rural land and real estate process.
6.6.3 Programmes broadly concerned with planning and development **Planning and Development**	Graduates have a basic understanding of the principles underpinning the planning, land acquisition, design, financing, development and marketing of real estate and associated infrastructure at both a site and area-wide level. In doing so, they demonstrate regard for the physical, technical, legal, market, socio-economic, environmental and political factors affecting decisions to develop, the processes by which schemes are implemented and the outcomes, impacts and management of completed schemes. Typically this knowledge and understanding relates to: i surveying, measuring and analysing land and buildings in support of development, redevelopment or conservation proposals ii the character, history, geography and dynamics of urban and rural areas, built and natural environments and the challenges of future change, threats and opportunities iii how the real estate market and infrastructure affects the value of real estate and its development, the valuation methods and techniques of analysis supporting this iv architectural appreciation, functional design, user needs and inclusive design and, technological challenges and trends v how to manage the real estate development process vi the contribution of national and local planning policies vii place making, master planning, urban design and design codes that both influence and control development and infrastructure viii planning and development challenges at an urban scale, for example, sustainability and smart cities ix development management processes from application to appeal x development appraisal techniques available to calculate the rates of return, viability, profitability and value for money

	Threshold
	xi procurement choices and their impact on quality, cost and delivery time xii the impact real estate development has on the environment and initiatives to minimise energy, reduce carbon emissions, protect and increase biodiversity, flood protection and increase health and well-being xiii the need to work with other professions and agencies and of their contribution in meeting environmental, social and economic sustainability xiv the legal and ethical responsibilities that planners, developers and their consultants have to clients and the wider public in terms of professional and social corporate responsibilities xv 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 planning for development process.
6.6.4 **Programmes broadly concerned with construction:** **Construction Management**	Graduates have a familiarity in the management of the construction process including the environmental, sustainable and technological issues and considerations. Graduates will be able to: i demonstrate an understanding of the key concepts, theories and principles used in construction and the management of construction ii identify the appropriate stakeholders involved in the construction process and their relevant roles and responsibilities iii describe the context in which the process of construction operates, including the legal, business, social, economic, health and safety, cultural, equality and inclusion, technological, physical, environmental and global influences including the relationship to digital technologies iv recognise the collaborative linkages and interdisciplinary relationships between the functions of construction and the other disciplines of the built environment v recognise the various construction technologies and specialisms relevant to the construction of assets for lifetime performance vi recognise the appropriate generic and bespoke software that supports construction and digital construction vii recognise the regulatory systems within which construction operates including building and planning regulations viii appreciate the importance of sustainability within the context of the built environment, including the quality of life theme ix recognise the importance of professional ethics, their impact on the operation of the profession and their influence on society, conflict avoidance/dispute resolution, communities and the stakeholders with whom they have contact x demonstrate an understanding of the principles and processes that deliver an inclusive environment

	Threshold
	recognising the diversity of user needs by putting people (of all ages and abilities) at the heart of the construction management process.
6.6.5 Programmes broadly concerned with construction: **Quantity Surveying and Commercial Management**	Graduates have a basic understanding of the principles underpinning the management of finance, costs and value throughout the building and infrastructure life cycle from inception to demolition. In doing so they demonstrate regard for the physical, technological, legal, health and safety, economic, environmental, political and business decisions that affect cost and contractual advice. Graduates will be able to: i demonstrate an awareness of the mainstream technology and the resources it uses for constructing domestic, industrial, commercial buildings and infrastructure ii describe the impact development has on the environment and initiatives to minimise energy, reduce carbon emissions, protect and increase biodiversity, flood protection and increase health and well-being iii demonstrate ability to measure and quantify to support the design process, production of project information and the commercial management of projects iv demonstrate an appreciation of time, cost quality and value drivers affecting the design and construction and occupancy of buildings v demonstrate awareness of the legal and regulatory frameworks and systems impacting on the design and construction of buildings, and the principles of procurement and contract administration vi demonstrate an awareness of digital technologies that support the construction process and the management of costs vii recognise the roles of other professionals and parties associated with construction, property and surveying throughout a buildings lifecycle and be aware of the benefits of collaborative practice viii recognise the importance of professional ethics, their impact on the operation of the profession and their influence on society, conflict avoidance/dispute resolution, communities and the stakeholders with whom they have contact ix 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 commercial management and quantity surveying process.
6.6.6	Graduates have some familiarity with the principles underpinning the design, creation and whole-life performance of buildings and facilities. They also appreciate the technical, economic and sociological factors affecting their development and use.

	Threshold
Programmes broadly concerned with real estate, property and asset management: **Building Surveying**	Graduates will be able to: i demonstrate an appreciation of the performance requirements of buildings and facilities ii describe the technical factors affecting the design and construction of buildings iii recognise that differing design options may be employed in the construction of buildings iv demonstrate an awareness of the mainstream technology for constructing domestic, industrial and commercial buildings v describe the broad categories of building components and materials together with the pathological processes resulting in their degradation and failure vi describe the broad approaches available to manage, repair and maintain buildings and facilities vii demonstrate awareness of the legal and regulatory frameworks and systems impacting on the design, construction and occupancy of buildings and facilities viii recognise the socio-economic factors influencing property development, construction and use ix have an awareness of the environmental impact of buildings and facilities x appreciate the nature of organisations that own and operate buildings xi be aware of the professional roles and responsibilities of key players in the property development cycle xii describe the main costs associated with the construction and use of buildings and facilities xiii be aware of the professional and ethical frameworks associated with the development and use of buildings and facilities xiv 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 building surveying process.
6.6.7 Programmes broadly concerned with real	Graduates are familiar with the principles underpinning the management of real estate. They also appreciate the physical, technical, legal, economic and environmental factors affecting their performance, both financial and from the user perspective.

	Threshold
estate, property and asset management: **Real Estate**	Graduates will be able to: i demonstrate an appreciation of the survey, measurement and technical analysis supporting real estate assets ii understand how the performance of real estate affects the ownership, use and occupation of property as assets iii demonstrate knowledge of the drivers of value of real estate and the valuation methods and techniques of analysis supporting this iv demonstrate a fundamental knowledge of the legal systems governing the ownership and occupation of land and the relationships between different stakeholders in land v demonstrate a basic knowledge of the main construction methods and of common defects affecting domestic and commercial buildings vi demonstrate an awareness of the contribution urban planning and property development make to real estate and the statutory instruments regulating the property market vii demonstrate an awareness of the investment appraisal techniques available to calculate the rates of return that real estate commands as a class of assets within capital markets viii demonstrate awareness of the impact real estate has on both the environment and social structures (including health and well-being) ix demonstrate awareness of the contribution that other professional experts make to sustain the development of real estate in a global and local context and mitigate the impact that it has on the environment x demonstrate an awareness of the professional and ethical responsibilities that real estate experts have to clients and in terms of the social corporate responsibility statements made by their employer organisations and to society xi 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 real estate process xii demonstrate awareness of how to manage real estate as property assets xiii be aware of the professional and ethical frameworks associated with the development, financing, investment in and use of buildings and facilities.

Table 2: Benchmark standards - Generic skills: on graduating with an honours degree in Land, Construction, Real Estate and Surveying, graduates should be able to:

	Threshold
6.6.8 Intellectual skills	i apply knowledge from taught programmes to solve problems ii demonstrate some understanding of subject-specific theories, paradigms, concepts and principles iii demonstrate an ability to define and solve routine problems iv collate, summarise and analyse information v integrate lines of evidence from a limited range of sources to support findings and hypotheses vi demonstrate some ability to consider issues from a range of multidisciplinary and interdisciplinary perspectives vii appraise academic literature and extract relevant points.
6.6.9 Practical skills	i plan, conduct and present an independent investigation with significant guidance ii relate investigations to some prior work and reference it appropriately iii where appropriate use laboratory and field equipment safely iv apply a range of methods to solve problems v use appropriate technologies to address problems vi where appropriate, describe and record in the field and laboratory vii interpret practical results with guidance viii present results of investigations in a number of formats ix apply survey measurements and evaluation techniques as appropriate to the programme x recognise and record visual information when on site or from graphical sources xi apply professional judgement in drawing skills and knowledge together and applying them to real world problems.
6.6.10 Analytical and data interpretation skills	i recognise when information is incomplete ii appreciate risk iii process and interpret data and information iv critically appraise spatial data v solve basic numerical problems using appropriate techniques vi undertake simple statistical analysis vii select and apply appropriate methods of collecting, analysing, and synthesising data appreciate the importance of intellectual property and its role within the innovation process.

	Threshold
6.6.11 Communication skills	i communicate to a variety of audiences in appropriate written, graphical, electronic and verbal forms ii make contributions to group discussions iii watch, listen and respond to others iv negotiate and mediate with others v use social media for communication.
6.6.12 Digital literacy skills	i use the internet for communication and information retrieval ii handle electronic information with guidance, applying appropriate techniques, digital tools and applications to support key subjects iii have an awareness of the safe, ethical and legal use of digital media iv demonstrate the application of information technology and digital tools and techniques to support key subjects.
6.6.13 Interpersonal and teamwork skills	i make a constructive contribution to teamwork ii identify individual goals iii recognise and respect the views of others iv recognise equality, diversity and inclusion in all its forms v reflect on team performance.
6.6.14 Self-management and professional development Skills	i recognise and be able to comment on the moral and ethical issues associated with the subject ii appreciate the need for professional codes of conduct iii accept responsibility for their own learning iv identify targets for personal, career and academic development v be adaptable and have a flexible approach to study and work vi develop skills necessary for self-managed, independent and lifelong learning vii recognise personal strengths and weaknesses.

Typical standard

6.6.15 In addition to the threshold standards a graduate in the field of Land, Construction, Real Estate and Surveying achieving a typical standard will demonstrate:

- a sound understanding and application of the majority of knowledge components within their programme of study as listed above and the application of this knowledge to a good level with appropriate critical discernment
- effective and appropriate application and execution of the majority of the skills listed above showing insight, some initiative, creativity and autonomy.

Excellent standard

6.6.16 In addition to the threshold standards a graduate in the field of Land, Construction, Real Estate and Surveying achieving an excellent standard will also demonstrate:

- a sound understanding of the majority of knowledge components within their programme of study, as listed above, and the application of this knowledge with a high level of originality, insight and critical discernment
- effective, fluent and appropriate application and execution of the majority of the skills listed above, showing high levels of insight, initiative, creativity, autonomy and leadership.

Appendix: Membership of the benchmarking and review groups for the Subject Benchmark Statement for Land, Construction, Real Estate and Surveying

Membership of the review group for the Subject Benchmark Statement for Land, Construction, Real Estate and Surveying (2016)

Paul Collins	Nottingham Trent University
Dr Geoffrey Cook	University of Reading
Professor Mark Deakin	Edinburgh Napier University
Catherine Higgs	University of the West of England
Ian Jeal	Royal Institution of Chartered Surveyors
Clare Mahon	University of Ulster
Dr Andrew Platten	Leeds Beckett University
Professor David Proverbs (Chair)	Birmingham City University and Council of Heads of Built Environment
Professor Mike Riley	Liverpool John Moores University Council of Heads of Built Environment
Professor Sarah Sayce	Royal Agricultural University and Council of Heads of Built Environment
Aled Williams	University College of Estate Management
Employer representative	
Paul Senior	Keepmoat
Student reader	
Diane Cleves	Middlesbrough College
QAA officer	
Helen Kealy	Quality Assurance Agency for Higher Education

Membership of the review group for the Subject Benchmarking Statement for Construction, Property and Surveying (2008)

Details provided below are as published in the second edition of the Subject Benchmark Statement.

Professor Alan Ashworth (Chair)	University of Salford
David Cracknell	Construction Industry Council ConstructionSkills
Keith Hutchinson	University of Reading
Nick Nunnington	Sheffield Hallam University
Dr Andrew Platten	Elevate East Lancashire
Vivian Small	Royal Institution of Chartered Surveyors
Paul Williamson	Chartered Institute of Building

Membership of the original benchmarking group for Building and Surveying (2002)

Details below are as published in the original Subject Benchmark Statement for Building and surveying (2002).[10]

Professor John Bale	Leeds Metropolitan University
Dr Max Graham	University of Glamorgan
Professor Cliff Hardcastle	Glasgow Caledonian University
Martin Hill	De Montfort University
Professor Rodney Howes (Chair)	London Southbank University
Peter Lyons	The Nottingham Trent University
Professor David Mackimin	Sheffield Hallam University
Rita Newton	University of Salford
Professor Robert Pollock	The Robert Gordon University
Dr Aileen Stockdale	University of Aberdeen
Robert Wilkie	University of Northumbria at Newcastle
Derek Worthing	University of the West of England, Bristol

QAA1753 - Oct 2016

Southgate House, Southgate Street, Gloucester GL1 1UB
Registered charity numbers 1062746 and SC037786

Tel: 01452 557050
Web: www.qaa.ac.uk

[10] Originally published as Building and surveying (2002)