# Construction, property and surveying

2008

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# Preface

Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated.

This subject benchmark statement, together with others published concurrently, refers to the **bachelor's degree with honours**[1]. In addition, some subject benchmark statements provide guidance on integrated master's awards.

Subject benchmark statements are used for a variety of purposes. Primarily, they are an important external source of reference for higher education institutions (HEIs) when new programmes are being designed and developed in a subject area. They provide general guidance for articulating the learning outcomes associated with the programme but are not a specification of a detailed curriculum in the subject.

Subject benchmark statements also provide support to HEIs in pursuit of internal quality assurance. They enable the learning outcomes specified for a particular programme to be reviewed and evaluated against agreed general expectations about standards. Subject benchmark statements allow for flexibility and innovation in programme design and can stimulate academic discussion and debate upon the content of new and existing programmes within an agreed overall framework. Their use in supporting programme design, delivery and review within HEIs is supportive of moves towards an emphasis on institutional responsibility for standards and quality.

Subject benchmark statements may also be of interest to prospective students and employers, seeking information about the nature and standards of awards in a given subject or subject area.

The relationship between the standards set out in this document and those produced by professional, statutory or regulatory bodies for individual disciplines will be a matter for individual HEIs to consider in detail.

This subject benchmark statement represents a revised version of the original published in 2002. The review process was overseen by the Quality Assurance Agency for Higher Education (QAA) as part of a periodic review of all subject benchmark statements published in this year. The review and subsequent revision of the subject benchmark statement was undertaken by a group of subject specialists drawn from, and acting on behalf of, the subject community. The revised subject benchmark statement went through a full consultation with the wider academic community and stakeholder groups.

QAA publishes and distributes this subject benchmark statement and other subject benchmark statements developed by similar subject-specific groups.

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[1] This is equivalent to the honours degree in the *Scottish Credit and Qualifications Framework* (level 10) and in the *Credit and Qualifications Framework for Wales* (level 6).

The Disability Equality Duty (DED) came into force on 4 December 2006[2]. The DED requires public authorities, including HEIs, to act proactively on disability equality issues. The Duty complements the individual rights focus of the *Disability Discrimination Act* and is aimed at improving public services and outcomes for disabled people as a whole. Responsibility for making sure that such duty is met lies with HEIs.

The Equality and Human Rights Commission[3] has published guidance[4] to help HEIs prepare for the implementation of the Duty and provided illustrative examples on how to take the Duty forward. HEIs are encouraged to read this guidance when considering their approach to engaging with components of the Academic Infrastructure[5], of which subject benchmark statements are a part.

Additional information that may assist HEIs when engaging with subject benchmark statements can be found in the *Code of Practice (revised) for providers of post-16 education and related services*[6], and also through the Equality Challenge Unit[7] which is established to promote equality and diversity in higher education.

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[2] In England, Scotland and Wales.

[3] On 1 October 2007, the Equal Opportunities Commission, the Commission for Racial Equality and the Disability Rights Commission merged into the new Equality and Human Rights Commission.

[4] Copies of the guidance *Further and higher education institutions and the Disability Equality Duty, Guidance for Principals, Vice-Chancellors, governing boards and senior managers working in further and higher education institutions in England, Scotland and Wales*, may be obtained from www.equalityhumanrights.com/en/forbusinessesandorganisation/publicauthorities/disabilityequalityd/pages/disabilitye.aspx

[5] An explanation of the Academic Infrastructure, and the roles of subject benchmark statements within it, is available at www.qaa.ac.uk/academicinfrastructure

[6] Copies of the *Code of Practice (revised) for providers of post-16 education and related services*, published by the Disability Rights Commission, may be obtained from www.equalityhumanrights.com/en/publicationsandresources/Disability/Pages/Education.aspx

[7] Equality Challenge Unit, www.ecu.ac.uk

# Foreword

This statement is a revision of the subject benchmark statement for building and surveying that was published in 2002. As part of the process of revising all of the subject benchmark statements originally published in 2002, requests for comment were sent by QAA to the principal professional bodies and the Centre for Education in the Built Environment (CEBE), the Higher Education Academy Subject Centre. Different views about the extent of desirable revision were received, and a group was convened, including representatives from relevant university departments and professional bodies (see Appendix B for membership of the review group).

A decision was made to revise the title of the benchmark statement. 'Construction, property and surveying' was seen as more representative of the programmes that are covered by the statement.

The review group made a number of changes to the content of the statement. The diversity of programmes within the subject area is acknowledged explicitly by identifying the broad areas of specialism that different programmes may cover. In addition, the section that identifies subject-specific skills is wider than in the previous edition, with the proviso that not all programmes are expected to provide every skill. This has also meant that the specification of threshold standards has been expanded, with the same caveat that programmes can be expected to produce graduates with knowledge and skills that vary according to specialism.

The references to the place of business knowledge and skills in relevant programmes are strengthened, particularly in the sections that address the nature and extent of the subject and expected subject knowledge.

In identifying the relevant subject-specific skills, reference was made to national occupational standards that have been developed by the Construction Industry Council, as well as to the accreditation policies produced by professional bodies such as the Chartered Institute of Building (CIOB) and the Royal Institution of Chartered Surveyors (RICS). For those wishing to investigate the requirements for professional accreditation further, there are references to relevant documents at the end of this benchmark statement (see Appendix A for details).

However, the professional bodies' requirements do not dictate the content of degree programmes. This is the product of decisions on course design taken within HEIs. In order to reinforce this point, a section has been added to the revised benchmark statement explaining the relationship between professional bodies and academic departments within the subject area.

Between 2002 and 2007, degree programmes in construction, property and surveying saw an expansion in applications and numbers of places that was faster than the average growth of the sector. The review group was conscious of this growth and of the diversity within the subject area in recommending amendments to the statement in order to make it as informative as possible and representative of the way in which degree programmes are designed.

**February 2008**

# 1 Introduction

1.1 The purpose of this statement is to identify and produce a generic benchmark statement to represent standards for the award of single honours degrees in construction, property and surveying. This subject benchmark statement is not meant to be prescriptive; instead it should be used for the guidance and creation of a common understanding of standards and programme objectives.

1.2 The subject area of construction, property and surveying brings together a range of distinct academic communities engaged in developing bodies of knowledge through scholarship, research and professional practice. These communities draw on a diverse range of specialisms and practices that are required of those involved in construction, property and surveying, hence graduates have the potential to pursue a wide range of careers. The subject area is multidisciplinary and has an applied and interdisciplinary focus. It is recognised that the practice of construction, property and surveying is increasingly concerned with the finance and management of resources as well as with current technology.

1.3 Construction, property and surveying is a part of the larger academic domain comprising the built and natural environments, both of which involve human interaction. It shares much of its knowledge base with other disciplines within the broader domain. Readers should cross-reference with other subject benchmark statements such as architecture; architectural technology; landscape architecture; general business and management; finance; accounting; agriculture, forestry, agricultural sciences, food sciences and consumer sciences; earth sciences, environmental sciences and environmental studies; engineering; and town and country planning. Construction, property and surveying is also influenced by the increasing interest of all the built environment professions in promoting shared learning. All programmes therefore draw upon knowledge, concepts and paradigms from a wide range of academic sources. While the discipline recognises the importance of its vocational nature, the emphasis should be on providing an education rather than training, which is best left to the professions and industry to facilitate.

1.4 This statement is intended to be useful to those in HEIs who are involved in programme validation and design, thereby benefiting future prospective students and their sponsors. It is probably impossible to provide a document that will satisfy the needs and requirements of all stakeholders, but it should be a valuable benchmark to generate further progress towards improving quality and maintaining standards.

1.5 The following sections commence with the defining principles on which the subject benchmark statement for construction, property and surveying is based. The next section outlines the subject knowledge, understanding and skills required of those graduates engaged in construction, property and surveying. The statement then goes on to address issues relating to teaching, learning and assessment. The last section provides an articulation of the benchmark standards and levels of achievement required by single honours graduates in construction, property and surveying, which should be read in conjunction with the statement as a whole.

# 2 Defining principles

2.1 Construction, property and surveying is concerned with the development and management of land, buildings and other assets. This covers a broad range of topics, including:

- measurement (including measures of area, volume, cost, value, worth, natural resource, energy etc)
- project and cost management
- management of the construction process
- physical asset management and maintenance
- development (including financing, land assembly, marketing and letting)
- agency (including lettings, sales and acquisitions)
- strategic management and value creation (including estate management and corporate real estate management)
- investment strategies (including portfolio management, securitisation and unitisation).

2.2 Concerns include the ongoing processes of evaluation, development, redevelopment, maintenance and management, and the solution of related multifaceted problems.

2.3 Construction, property and surveying seeks to understand the impact of changing social, 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.

2.4 The subject area reflects cultural and social values and the needs of business. These have a powerful effect upon the lives of individuals and society as a whole. The processes involved in the production, occupancy and management of the built and natural environments are generally labour-intensive and complex in human terms. Hence the study of construction, property and surveying should develop an awareness of health, safety and welfare issues and also ethical responsibilities that enable the diverse needs and requirements of all stakeholders to be recognised. The sustainability of proposed solutions to problems is a fundamental concern.

# 3 Nature and extent of construction, property and surveying

3.1 Construction, property and surveying is concerned with the provision and analysis of information for a variety of decision-making and resource allocation purposes relating to our urban, rural and marine resources, and improvements thereto, including buildings and infrastructure.

3.2 Programmes in construction, property and surveying are multidisciplinary, with a substantive area of specialist or technical knowledge associated with the award title and its specified learning outcomes, which may include a broad preparation for initial employment.

3.3 Construction, property and surveying programmes require students to study a range of subjects and be able to integrate the knowledge acquired to the identification and solution of relevant problems. Students will understand how the implementation of solutions relates to investment in, and the ownership, use, development, management, maintenance and improvement of land, buildings and facilities (or estates/portfolios of land and buildings) in the context of identifiable physical, urban, rural or maritime parameters.

3.4 Programmes tend to be identified with an area of specialism, theme or area of the built environment. They will often concentrate on one specialism while drawing on others. Common specialisms are described below.

- **Building surveying:** the maintenance, adaptation and repair of buildings.
- **Construction:** management of the production and assembly of buildings and other infrastructure.
- **Corporate real estate:** business property management and the incorporation of property strategy within corporate strategy.
- **Engineering services:** design and coordination of mechanical and electronic building services, including the management of energy and carbon emissions.
- **Facilities management:** space planning, space utilisation and cost benchmarking.
- **Geomatics:** acquisition, modelling and analysis of spatially referenced data.
- **Property development:** site analysis, planning, management and development.
- **Property investment:** assembly, management and appraisal of property portfolios with structured financing of developments.
- **Property management:** management and finance of leases, tenancies and the occupation of property.
- **Quantity surveying:** cost and value management of construction.
- **Rural practice:** management and surveying of land and other assets in a rural context.

3.5 The range of specialisms means that the designs of degree programmes will legitimately vary. Subjects covered may include, as appropriate:

- measurement and evaluation both quantitatively and qualitatively: of land; land and marine resources; and built assets
- law relating to the tenure, sale, use and development of land, which could include building control; statutory planning; health and safety; project procurement; dispute resolution; employment legislation; equal opportunities; and a range of other subject-specific statutes
- economic theory and applied economics, including resource allocation models; valuation methods; financial management; planning; construction industry economics; and business management
- design, construction, performance and recycling of buildings, including aspects of civil engineering and building services
- mineral, maritime and rural resource management
- management of projects from conception to realisation and their operational use; human and financial resources; and organisational processes.

3.6 The curricula should be underpinned by acceptable levels of numeracy and literacy; business awareness; and information and communication technologies (ICT) competence. Students will be made aware of underlying principles in the social and natural sciences where these affect the subject matter of their programmes of study. The curriculum may be developed within a broad programme specification such as building construction, or within a defined area such as leisure, residential and commercial property or real-estate finance.

3.7 Students will acquire knowledge and understanding of the context, core concepts and theories relevant to their chosen discipline within the broad area of construction, property and surveying. They should also acquire the subject-specific skills that enable them to work effectively within the area covered by their specialism. This will be supported by the development of generic or cognitive skills, not purely specific to the subject, which they will be able to apply both within the academic context in which they will be studying, and also to the wider world of work upon graduation.

# 4 Subject knowledge and understanding

4.1 Graduates in construction, property and surveying should, depending on their area of specialism, have acquired knowledge and understanding across several of the following:

- the key concepts, theories and principles used in construction, property and surveying relevant to their specialism. These may include measurement; physical and financial appraisal of buildings; legal principles; economic theory and applied economics; design, construction, performance of buildings; resource management; investment analysis; corporate real estate management; and the application of business management theories

- the appropriate stakeholders involved in construction, property and surveying, and their relevant power and interest
- the context in which building, construction management and real estate processes operate, including the legal; business; social; economic; health and safety; cultural; technological; physical; environmental; and global influences on its specialism
- the linkages and interdisciplinary relationships between the functions of the discipline and the relationships between the discipline and related disciplines operating in the built and natural environments
- one or more areas of specialist knowledge, possibly related to the specialism of the programme, for example construction engineering; human-building interaction; land surveying; mapping; resource management and allocation; corporate real estate; sustainability; and valuation
- the professions and industries allied to construction, property and surveying, their operation and the linkages between them
- the appropriate generic and bespoke software that supports construction, property and surveying functions (for example development appraisal software)
- the regulatory systems within which construction, property and surveying operate, for example, the planning and building control systems and their implications for development
- contemporary issues facing the profession and driving change within it, for example, the sustainability/environmental agenda and the shift from transactional to consultancy-based businesses
- professional ethics, their impact on the operation of the professions and their influence on the society; conflict avoidance/dispute resolution; communities and the stakeholders with whom they have contact.

# 5 Subject-specific skills and generic skills

5.1 Programmes in construction, property and surveying should encourage students to develop personal and professional skills that broaden access to employment, but at the same time provide a broad-based education. Graduates should be able to make a positive contribution to their place of work and to the wider community using the skills that they acquire. Given the range of discipline specialisms within construction, property and surveying, it is not intended that the skills listed below are either prescriptive or exhaustive in setting out what a graduate should be able to demonstrate. It is anticipated that graduates from programmes will continue to develop and refine their skills throughout their professional lives using both formal and informal methods that lead to a reflective approach to their lifetime learning and development.

5.2 As well as being able to demonstrate a range of capabilities specific to the subject, graduates should also be able to demonstrate relevant personal and interpersonal skills that have value in many different areas of employment. Subject-specific and generic skills that students may acquire, depending on their specialism, include:

- the capacity for the critical evaluation of arguments and evidence and the application of it to building, construction management and real estate contexts
- the ability to locate, extract and analyse data from multiple sources, including drawn information
- the ability to devise solutions to routine and unfamiliar problems, including collecting, analysing and interpreting data
- the ability to use effectively appropriate quantitative and other equipment, and use generic and bespoke ICT software
- the ability to present quantitative and qualitative information, together with analysis, argument and commentary, in a form appropriate to the intended audience, including appropriate acknowledgement and referencing of sources
- skills in the use of ICT such that they can acquire, design, use and modify existing communication technologies
- the ability to gather and summarise legal and other documents, citing evidence and make judgements, weighing up positives and negatives and evaluating competing explanations to draw appropriate conclusions
- the ability to produce professional reports in accordance with published conventions and/or client expectations, including executive summaries
- skills in the use of statistical concepts at an appropriate level, such that they can interpret, analyse and manipulate data
- wider research skills to aid in the development of a cumulative element of original work
- the ability to work effectively with others within the context of a multidisciplinary team respecting the respective inputs from fellow professionals, client(s), and other stakeholders and reflecting on one's own performance and role within the team
- the capacity to lead projects in a responsive and inclusive manner
- the capacity for independent and self-managed learning such that they can analyse their own personal strengths and weaknesses and formulate strategies for improvement
- skills that promote safe working environments and safe buildings for habitation and use
- the ability to question standard practice, and to apply professional judgement in making recommendations and solving problems for future best practice
- the ability to demonstrate understanding of the significance of professional ethics and accountability.

# 6 Teaching, learning and assessment

6.1 The variety of construction, property and surveying programmes offered by institutions has led to a rich variety of teaching, learning and assessment methods being employed. As a discipline that bridges theoretical, practical and professional activities, pedagogy should embrace practical application of theory and the embedding of employability skills. Approaches such as case-studies, practical development projects using real sites, simulations of property portfolio management and interdisciplinary projects are encouraged because of their particular relevance to the subject area. This does not rule out the use of other forms of learning and assessment where they are appropriate to curricula content. It is the responsibility of each institution to ensure that teaching, learning and assessment are appropriate to meeting the aims and identified learning outcomes of each of their programmes. The HEI should be able to demonstrate how its strategy and practices enable students to achieve the subject-specific knowledge and skills.

6.2 There is not a single set of teaching and learning activities uniquely suitable to the study of construction, property and surveying. The design of such activities must be in the context of each honours degree programme and take into account:

- the nature of the study of construction, property and surveying and the need to achieve an appropriate balance between conceptual theory and practice aspects of the subject
- the extent to which the honours degree programme reflects current research and academic debate
- the extent to which the honours degree programme reflects best practice
- the recognition of changing educational practices and objectives of programmes
- the nature of the student population studying on the programme
- the contribution made from workplace learning
- the mode of delivery (for example full-time, sandwich, part-time, distance learning or blended learning).

6.3 The forms of assessment used should be fit for purpose in the evaluation of honours degree programmes in construction, property and surveying. There will be a suitable mix of assessment activities that allow and require students to demonstrate not only their achievements in the conceptual and applied aspects of their study, but also the development of their cognitive abilities and generic skills. The design of assessment should take into account:

- both formative and summative aspects, particularly where assessment can inform learning and teaching and, as a result, support the development of graduates in the subject
- the balance between formal assessment activities and other forms of non-assessed experiences, which together contribute to the student's development
- indicators of individual performance
- the capability to test the wide range of student abilities, knowledge, skills and understanding

- how feedback and assessment is used to generate a reflective experience for both the students and programme providers
- forms of assessment required by the professional bodies
- forms of assessment that encourage a student's onward progression towards the assessment of professional competence
- forms of evidential assessment required by industry qualifying systems, including National Vocational Qualifications (NVQs)/Scottish Vocational Qualifications (SVQs) and the Construction Skills Certification Scheme.

# 7 Benchmark standards

7.1 Two levels of achievement are specified, namely threshold and typical. The threshold standard describes the minimum level of attainment for the award of a single honours degree; the typical standard describes that achieved by the majority of graduates. In accordance with assessment criteria, as defined within programme documentation and with due cognisance of institutional academic regulations, those students who exceed the typical level will be judged for excellence.

7.2 The benchmark standards express performance that must be achieved on completion of the single honours degree programme. The specified statements should not be used in a prescriptive manner, instead they should be treated as a framework within which innovation and the incorporation of unique combinations of specialisms appropriate to the subject can be developed. Account must also be taken of academic rules and regulations applied by individual universities.

7.3 A common set of benchmark standards has been identified for each level with regard to subject knowledge and understanding; subject-specific skills; and generic skills. These should be cross-referenced to the definitions of subject knowledge and understanding; subject-specific skills; and generic skills previously described.

7.4 The following section should be read in conjunction with paragraphs 3.7 and 4.1.

## Subject knowledge and understanding

### Threshold standard

7.5 On graduating with a single honours degree within the subject of construction, property and surveying, students should be able to:

- recognise the nature of the relevant specific discipline and its relationships within the context of the subject
- describe and apply a range of relevant key concepts, theories and principles
- identify and recognise relevant issues and why they are important
- recognise and apply all relevant aspects of management and other specialisms within the context of regulatory requirements, the needs of society and ethical correctness
- select and apply ICT applications appropriate to the discipline
- present original ideas and reflections via a range of methods to convey appropriate standards of literacy and the use of numeric data
- identify and explain the nature of the various working interactions and relationships in a professional context.

**Typical standard**

7.6 On graduating with a single honours degree within the subject of construction, property and surveying, students should be able to:

- recognise and anticipate the need for change in the relevant discipline and perceive future trends leading to the formation of informed questions
- describe and examine a range of key concepts and theoretical approaches and evaluate their effective application
- analyse the relative importance of relevant issues and their future application
- evaluate and make judgements about all relevant aspects of management and other specialisms within the context of regulatory requirements, the needs of society and ethical correctness
- select and evaluate ICT applications appropriate to the discipline and evaluate and present original strategies to carry out a particular task
- analyse working relationships and interactions and evaluate their own strengths and weaknesses in a professional context.

7.7 The following section should be read in conjunction with paragraphs 5.1 and 5.2.

## Subject-specific skills

**Threshold standard**

7.8 On graduating with a single honours degree within the subject of construction, property and surveying, students will, depending on their specialism, be able to perform several of the following:

- survey, map and test specified characteristics of the natural and built environment
- understand strategies and the requirements of environmental sustainability
- understand organisational strategies and processes in a relevant industry
- identify project requirements and the processes for project development
- investigate factors affecting potential developments
- understand the financial and cost factors affecting development projects
- develop project designs and documentation
- understand procurement and contract processes
- understand construction and installation operations
- understand the processes for the control of work within projects
- identify the reasons for disputes
- produce basic valuations of built assets
- contribute to the processing of property transactions and agreements
- plan and control the use and maintenance of property, systems and services
- investigate questions and problems of a routine nature and devise solutions
- participate in teams in the context of effective professional practice.

**Typical standard**

7.9 On graduating with a single honours degree within the subject of construction, property and surveying, students will, depending on their specialism, be able to perform several of the following:

- identify, survey, map and test relevant characteristics of the natural and built environment
- analyse strategies and assess environmental sustainability
- contribute to the development of organisational strategies and processes in a relevant industry
- identify and agree project requirements and coordinate the project development process
- investigate and assess factors affecting potential developments
- assess the financial and cost factors affecting development projects
- develop, prepare and agree project designs and documentation
- implement procurement and contract processes
- plan construction and installation operations
- control work and manage project completion
- determine the resolution of disputes
- value and assess built assets on the basis of a variety of relevant factors
- manage the process of property transactions and agreements
- plan, control and manage the use and maintenance of property, systems and services
- investigate questions and problems of a non-routine and unfamiliar nature and devise solutions
- manage teams and develop good working relationships and professional practice.

7.10 The following section should be read in conjunction with paragraphs 5.1 and 5.2.

## Generic skills

**Threshold standard**

7.11 On graduating with a single honours degree within the subject of construction, property and surveying, students will be able to:

- use methods for acquiring knowledge and apply appropriate research strategies and methods
- gather and summarise information, cite evidence and make judgements about merits, contrast points of view and develop ensuing discussion, making judgements of a routine nature
- understand interpersonal relationships and understand and apply leadership, teamwork and self-development

- demonstrate a basic understanding of the workings of business and other types of organisation
- summarise and use a range of appropriate means of communication, including information technology for a particular topic or audience
- make judgements of a routine nature.

**Typical standard**

7.12 On graduating with a single honours degree within the subject of construction, property and surveying, students will be able to:

- evaluate the appropriateness of various methods of knowledge acquisition and select appropriate research methods
- evaluate a range of sources, including current research, draw on evidence to reflect and evaluate competing explanations to draw appropriate conclusions
- select and evaluate strategies to encourage and improve leadership, interpersonal relations, group dynamics and self-development
- demonstrate an understanding of the short and long-term needs of businesses and other types of organisation
- select and use effectively a range of appropriate means of communication including information technology
- make judgements of a non-routine nature in unfamiliar situations.

# 8 Relationship of professional bodies and Sector Skills Councils to degree programmes in construction, property and surveying

8.1 Most degree programmes in construction, property and surveying are accredited by one or more professional bodies, which oversee the relevant specialism and maintain sets of recognised competences against which the fitness of graduates to practise can be assessed. A bibliography at the end of this statement identifies some of the most commonly used sets of professional standards as a guide.

8.2 The status of the professions associated with building and surveying depends not only on high-quality education but also on high standards of professional conduct. Membership of a professional body places on the individual responsibility for delivery of building and surveying services within an ethical context. By following the code of conduct of a professional body, members can resolve or avoid any conflicts that may arise between the professional, the client and society at large.

8.3 The professional bodies have a vital role in the maintenance of standards throughout the education, training and professional career of their members. They want to ensure that the courses offered by higher education are relevant to professional practice and produce high-calibre graduates.

8.4 Professional bodies accredit or approve higher education courses through a process of auditing and monitoring. This relies on experienced members (academics and practitioners) assessing each course, to ensure that the curricular and assessment methods are appropriate, that standards of attainment are at an acceptable quality to enter the selected profession and that there are adequate resources to deliver it to a high standard. Some professional bodies, including RICS and CIOB, have moved to a partnership system of accreditation. This involves the selection of partner universities that meet high standards in, for example, teaching, learning outcomes, entry standards, research and knowledge transfer. Additionally, instead of central audit by the professional body, the key premise of accreditation relies on the university and professional body working together to achieve acceptable standards.

8.5 There are normally two components to attaining professional membership; an accredited degree and completion of a period of supervised training with a final assessment in defined areas of competence. This enables the professional body to ensure that its new entrants are competent to practise and will do so within the requirements of its ethical code.

8.6 In addition, and in conjunction with sector higher education stakeholders and professional bodies, the Construction Industry Council has developed Graduate Common Learning Outcomes. These provide a generic benchmark for construction and built environment graduates. The criteria within the Common Learning Outcomes set out the personal skills and levels of technical and professional awareness that new graduates should have achieved if they are to embark upon professional careers.

8.7 The Construction Industry Council manages, on behalf of the sector, the higher-level technical, managerial and professional National Occupational Standards and the framework of the higher-level NVQs/SVQs in the Built Environment. There is a full coverage of generic Occupational Standards, developed using functional analysis and covering all identified higher-level functions for technical, managerial and professional occupations across the built environment. The adoption of Occupational Standards, especially where they have been integrated into industry qualification systems, enables individuals from any background to see how they might build on the work-based knowledge and experience they have acquired, and identify the directly-derived areas of knowledge, understanding and experience that they need to meet industry competence requirements in order to progress. There is a long-term strategy to introduce Occupational Standards into the life of the industry so that value is added by providing a mechanism for forging progression links between academic (further and higher education), vocational (NVQs/SVQs) and professional qualification (initial professional development /continuing professional development) systems.

# Appendix A: References to professional bodies' statements of core skills and competences

*Higher Education Common Graduate Learning Outcomes*, Construction Industry Council, 2005.

*Occupational Standards for Professional, Managerial and Technical Occupations in the Built Environment*, Construction Industry Council, 2006.

*The CIOB Education Framework 2007,* Chartered Institute of Building, 2007.

*The CIOB Accreditation Panel Accreditation Process 2007*, Chartered Institute of Building, 2007.

*Policy and guidance on university partnerships*, Royal Institution of Chartered Surveyors, 2005.

*APC/ATC requirements and competencies*, Royal Institution of Chartered Surveyors, 2006.

## Appendix B: Membership of the review group for the subject benchmark statement for construction, property and surveying

| | |
|---|---|
| Professor Allan 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 |

## Appendix C: Membership of the original benchmarking group for building and surveying

Details below appear as published in the original subject benchmark statement for building and surveying (2002).

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

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