



QQI

Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

AWARD STANDARDS - ARCHITECTURE

www.QQI.ie

Award Standards - Architecture

FOREWORD

The Awards Standards presented in this document describe the knowledge, skill and competence to be acquired before a QQI 'Architecture' award may be made. The standard is expressed, by National Framework of Qualifications (NFQ) Level, in terms of required knowledge, skill and competence. The Awards Standards comprise a generic part (in the light grey panels) and a discipline-specific part.

Qualifications in architecture may be prescribed under Building Control Act 2007. The Awards Standards presented in this document have been designed to be used in conjunction with the corresponding evaluation procedures of the Royal Institute of the Architects of Ireland (RIAI).

The awards standards have been developed by an expert group with the support of the Higher Education and Training Awards Council executive and have been informed by national and international sources. The members of the expert group were:

- Prof. Merritt Bucholz School of Architecture, University of Limerick
- Prof. Hugh Campbell School of Architecture, University College Dublin
- Mr. Sean Harrington Seán Harrington Architects
- Ms. Máire Henry Department of Architecture, Waterford Institute of Technology
- Prof. James Horan Dublin School of Architecture, Dublin Institute of Technology; former President European Association for Architectural Education (2003-2005)
- Ms. Katherine Keane Department of Architecture, Cork Institute of Technology
- Prof. Kevin McCartney Centre for Architectural Education, University College Cork
- Ms. Ann McNicholl Director of Education, Royal Institute of the Architects of Ireland
- Prof. Per Olaf Fjeld Professor of Architecture, Oslo School of Architecture; former President European Association for Architectural Education (2005-2008)

The Awards Standards are designed to be used (i) by providers when designing new programmes and establishing minimum intended programme learning outcomes; (ii) by awarding bodies when validating new programmes; and (iii) by the RIAI as an element of the prescription process.

The Awards Standards will also be used by providers when reviewing their programmes. It is recognised that the new Awards Standards will require existing programmes to be updated, perhaps substantially.

These Awards Standards should not be interpreted as being detailed programme specifications. They do not uniquely specify the courses of study that a learner must take. Rather they should be seen as a reference for the development of programmes and a frame for the elaboration of intended programme learning outcomes. A diverse range of potential programmes *qua* processes and intended programme learning outcomes is compatible with these Awards Standards. The arrangement of the learning outcomes by level does not completely determine the sequence in which corresponding learning opportunities occur in a particular programme. Different programmes may sequence learning outcomes in different pedagogically valid ways.

The Awards Standards are relatively broad statements—specific programmes would be expected to specify intended learning outcomes in much more detail particularly at the level of individual modules. The broadness of the Awards Standards reflects their purpose which is to guide programme developers, reviewers, evaluators and validation panels etc., but at the same time to facilitate diversity and future developments. At Level 9 learning outcomes may be adjusted in order to provide the opportunity for increased focus in selected areas.

In presenting learning outcomes under the headings 'knowledge', know-how and skill' and 'competence' it is intended that collectively the complete set of outcomes address the act of architectural design and its realisation.

The tabulated learning outcomes are intended to be interpreted cumulatively. This means that the standard for an award at a particular level is the achievement of the learning outcomes at that level and those below it. For example, where there are gaps in a strand at a particular NFQ Level—this does not imply that no outcomes are required under this strand at that level but rather that it is both necessary and sufficient to have achieved the highest lower level outcome specified for this strand.

These standards were originally determined by the Higher Education and Training Awards Council in April 2011 and reissued with a new foreword by QQI in July 2014. They are QQI awards standards under section 84 (10) of the Qualifications (Education and Training) Act 2012.

Award Standards - Architecture

		Knowledge			
		Level 6	Level 7	Level 8	Level 9
		The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Knowledge-Breadth		<i>Specialised knowledge of a broad area</i>	<i>Specialised knowledge across a variety of areas</i>	<i>An understanding of the theory, concepts and methods pertaining to a field (or fields) of learning</i>	<i>A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning</i>
Knowledge-Kind		<i>Some theoretical concepts and abstract thinking, with significant underpinning theory</i>	<i>Recognition of limitations of current knowledge and familiarity with sources of new knowledge; integration of concepts across a variety of areas</i>	<i>Detailed knowledge and understanding in one or more specialised areas, some of it at the current boundaries of the field(s)</i>	<i>A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning</i>
DESIGN	Design Theory and Practice	Knowledge of elementary design theory and processes	Knowledge of a variety of architectural design theories and processes	Knowledge (with a professional level of breadth and depth) of design theory and processes and the relationship between design theory and practice	
	The Brief and Programme	Knowledge of the function of the 'brief' and 'programme' for a design project	Knowledge of different types of briefs/programmes and their relationships with building users' needs	Understanding how to research and prepare the brief/programme for a design project (taking appropriate factors into account) and of the roles of the architect, client and other professionals who may be involved in its formulation	
	Planning	Basic awareness of the relationship between people and their needs, and buildings; and between buildings and their environment, both built and natural	Knowledge of the impact and inter dependency of architectural designs and the local and global environments Awareness of urban and regional context for the design of buildings	Understanding of relationships between people, buildings, external spaces, the built and the natural environment and of the methods for relating the built environment and scale to society's needs Knowledge of theories of urban design and of planning and development legislation, policy, practices and contexts and of the methods involved in progressing a design project through the planning system	Critical awareness with new insights into the reciprocal relationship between people, buildings and the broader environment Systematic and critical understanding of local, regional, national and international contexts for planning and development
CULTURAL CONTEXT	History and Theory of Architecture and Related Subjects	Knowledge of the basic intellectual, social, scientific, technological and cultural underpinnings of architecture	Integrated knowledge of the histories and theories of architecture, its relationship with associated arts, technologies and human sciences and recognition of its limitations	Comprehensive knowledge of the histories and theories of architecture and related historical, social, scientific, technological, cultural and environmental influences	A systematic understanding and critical awareness of the historical and theoretical contexts for, and influences on, cutting edge contemporary architecture with fresh insights
	Fine Arts	Foundational knowledge of the fine arts including arts theory, arts practice, arts production and their relationship to architectural design	Knowledge of the relationship between crafts, the fine arts and architectural design and their impacts on each other	Knowledge of how the quality of architectural design is influenced by an understanding of the fine arts, including those specific to the local/prevaling culture	Systematic understanding of the art of architecture with particular reference to the forefront of the field
	Architectural Conservation	Awareness of architectural conservation issues	Adequate knowledge of the principles of architectural conservation	Adequate knowledge of the methods and current practice of architectural conservation	
TECHNOLOGY AND THE ENVIRONMENT	Structures—Engineering and Construction	Foundational knowledge of applied science, technology, engineering and mathematics	Specialised knowledge of scientific, engineering and technological disciplines with application to the ecologically-sustainable design, construction and maintenance of the built environment	Integrated understanding of a range of problems associated with <ul style="list-style-type: none"> • construction systems and methods • materials and their properties • structural design, theories and systems with application to building design and knowledge of relevant research and appraisal methods	Systematic and comprehensive understanding of structural design, constructional and engineering problems at the forefront of the building design field
	Buildings, People and Environment both built and global	Understanding of the concept of the 'built environment', its different aspects (e.g. spatial, ergonomic, aesthetic, acoustic, visual, thermal) and how these are perceived by and affect building users	Knowledge of principal methods and technologies for the provision of conditions of access, comfort and protection to all users of the built environment	Knowledge of how to design and construct buildings that provide safe, comfortable, functional internal environments	Knowledge of current research relating to the creation of ecologically sustainable built environments that provide comfort and protection

Award Standards - Architecture

ARCHITECTURAL COMMUNICATION	Conventions for communicating	Understanding of the conventions, modes and styles of discourse and communication in architecture		Knowledge of innovative methods of communication in architectural design	
PROFESSIONAL PRACTICE	Knowledge of Professional Practice Regulation and Professional Practice	Awareness of the professional and social roles of the architect including their responsibility to the built and natural environment Awareness of systems and regulations (regulatory framework) relevant to architecture	Understanding of the professional and social roles of the architect Specialised knowledge of the regulatory framework within which architects operate	Systematic understanding of architectural professional practice including: the role of the architect in the design team, during construction, in the construction industry and in society more generally Understanding of the <ul style="list-style-type: none"> • legal, professional and statutory responsibilities of the architect • relevant laws and legal principles • industries, organisations, regulations and procedures involved in translating and integrating design concepts into planned built environments 	Systematic knowledge of the structures and resources required for effective architectural practice
RESEARCH AND PERSONAL DEVELOPMENT	Development and use of Knowledge in Architecture	Understanding how knowledge is originated in architecture and transformed and framed by it	Awareness of architectural research concepts and terminology and familiarity with sources of new knowledge	Knowledge of innovation and research methods appropriate in the culture and practice of architecture	Systematic understanding of methods for the generation of new knowledge through original research, advanced practice or scholarship

Knowledge – breadth Knowledge outcomes are associated with facts and concepts; that is, they refer to knowledge of, or about, something. The more diverse, complex and varied the facts and concepts, the greater the breadth of knowledge and this is a matter of level. Breadth is distinguished from the number of different facts and concepts learned, which relates to volume.

Knowledge – kind The representation of facts and concepts, including ideas, events or happenings, is cumulative. The more facts and concepts are layered on top of each other, and draw successively upon each other to construct meaning, the higher the level of learning. This process is typically associated with progressively greater abstraction from concrete phenomena into theory.

Award Standards - Architecture

		Level 6	Level 7	Level 8	Level 9
		The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Know-how and Skill- Range		<i>Demonstrate comprehensive range of specialised skills and tools</i>	<i>Demonstrate specialised technical, creative or conceptual skills and tools across an area of study</i>	<i>Demonstrate mastery of a complex and specialised area of skills and tools; use and modify advanced skills and tools to conduct closely guided research, professional or advanced technical activity</i>	<i>Demonstrate a range of standard and specialised research or equivalent tools and techniques of enquiry</i>
Know-how and Skill- Selectivity		<i>Formulate responses to well-defined abstract problems</i>	<i>Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes</i>	<i>Exercise appropriate judgement in a number of complex planning, design, technical and/or management functions related to products, services, operations or processes, including resourcing</i>	<i>Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques</i>
GENERAL		Observe, reflect, describe, record, experiment and draw conclusions	Experiment, analyse, synthesise and summarise information	Identify and evaluate information, apply critical judgement and formulate objective strategies for action, innovating where appropriate	Critically analyse relevant theoretical frameworks, methodologies and practices
DESIGN	Design Skill and Interpreting the Brief	Analyse and understand the environmental, social and cultural context of a project and respond to them with a design solution	Explore, develop, define, communicate and implement a design proposal	Analyse, prioritise and synthesise the project brief/ programme and context, consider design options and subject them to critical judgement, so as to produce a coherent and well resolved design solution	Generate and test advanced and innovative design propositions which respond to rigorously researched issues and contexts
CULTURAL CONTEXT	Design Selectivity	Identify and use relevant sources of information (including technical and regulatory constraints) in the process of design development	Incorporate and/or respond to architectural, artistic, historical, natural and built heritage precedents in appropriate ways taking technical and regulatory constraints into account	Provide, through design, appropriate conditions of comfort in response to environmental context and climate, taking technical and regulatory constraints into account	
TECHNOLOGY AND THE ENVIRONMENT	Conservation Skill			Factor conservation principles into the consideration of design options	Factor conservation principles into the consideration of technological, structural and materials options
	Technical skills which can be applied in the context of design	Demonstrate the elementary technical skills of the architect and their use in design	Demonstrate the elementary technical skills of the architect and selectivity in their use in design	Demonstrate the technical skills of the architect at a professional level and selectivity in their use	Demonstrate ability to select from complex and advanced skills and to develop new skills relating to emerging techniques to a high level
	Structural Design and Analysis	Elementary methods for the creation of design responses to defined structural problems	Demonstrate creative design and analysis of simple structures	Design and analyse advanced architectural structures in collaboration with engineering professionals	

Award Standards - Architecture

ARCHITECTURAL COMMUNICATION	Communication skills	Communicate through listening, speaking, writing, drawing, and modelling	Communicate an architectural concept quickly and clearly in sketch, model and verbal form	Communicate effectively within the field of architecture with all involved in the design and construction process and with external audiences	Communicate results of research and innovation to peers
PROFESSIONAL PRACTICE		Demonstrate basic decision-making skills in the performance of well-defined tasks	Demonstrate effective decision-making skills within the context of individual and team tasks	Demonstrate authentic appreciation of the responsibilities of architects to clients, to building users and to all involved in the design and construction process	Demonstrate an advanced appreciation of the architect's role in evaluating risks and outcomes and advising on appropriate action
RESEARCH AND PERSONAL DEVELOPMENT	Research and enquiry	Investigate, enquire, experiment and keep research records, use precedent studies	Critically evaluate precedent studies as applicable to NFQ Level 7 design projects	Undertake supervised research and systematic analysis and construct reasoned responses from available information and evidence	Demonstrate a range of standard and specialised research or equivalent tools and techniques of architectural enquiry

Know-how and skill – range Skills, in both their execution and the demonstration of underpinning procedural knowledge, encompass the use of many different kinds of tool. 'Tool' refers to any device or process that facilitates individuals having some effect on their physical, informational or social environment. Tools include cognitive and social processes as well as physical implements. Tools, and the skills to use them, range from commonplace or familiar to novel or newly-invented. The sheer number of skills acquired is a matter of volume, rather than of level. The diversity of skills is a feature of this strand that contributes to differentiation in level. The completeness of the set of skills (and associated know-how) in respect of an area of activity is another feature that helps indicate the level.

Know-how and skill – selectivity The performance of tasks depends on the learner having an appropriate understanding of the environment in which the tasks are performed and being aware of his/her own ability and limitations, while at the same time being able to correctly judge the fit between the demands and ability. Whereas the range of know-how and skill refers to what a learner can do, selectivity (which might also be called procedural responsiveness) refers to the judgement that the learner exercises in carrying out procedures, through selecting from the range of know-how and skills available to him/her, in accordance with his/her appraisal of the demands of the task.

Award Standards - Architecture

	Level 6	Level 7	Level 8	Level 9
	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Competence-Context	<i>Act in a range of varied and specific contexts involving creative and non-routine activities; transfer and apply theoretical concepts and/or technical or creative skills to a range of contexts</i>	<i>Utilise diagnostic and creative skills in a range of functions in a wide variety of contexts</i>	<i>Use advanced skills to conduct research, or advanced technical or professional activity, accepting accountability for all related decision making; transfer and apply diagnostic and creative skills in a range of contexts</i>	<i>Act in a wide and often unpredictable variety of professional levels and ill-defined contexts</i>
GENERAL	Generate, under direction, creative architectural designs that satisfy well defined simple aesthetic and technical specifications	Generate, under supervision, creative architectural designs that satisfy well defined straightforward aesthetic and technical specifications	Generate creative architectural designs that respond to complex aesthetic, environmental, social and technical design challenges while meeting regulatory requirements	Generate creative and innovative responses to complex design challenges meeting aesthetic, environmental, social and technical requirements

Competence – context Human situations, whether occupational or general social and civic ones, supply the context within which knowledge and skill are deployed for practical purposes. Such situations range in complexity and hence in the demands they place upon the person acting in them. Highly defined and structured situations or contexts constrain the behaviour of the individual and require lower levels of learning. The range of responses required, and hence the extent to which a broader range or higher level of knowledge and skill have to be drawn upon also depends on how predictable the context is. Acting effectively and autonomously in complex, ill defined and unpredictable situations or contexts requires higher levels of learning.

	Level 6	Level 7	Level 8	Level 9
	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Competence-Role	<i>Exercise substantial personal autonomy and often take responsibility for the work of others and/or for allocation of resources: form and function within, multiple complex and heterogeneous groups</i>	<i>Accept accountability for determining and achieving personal and/or group outcomes; take significant supervisory responsibility for the work of others in defined areas of work</i>	<i>Act effectively under guidance in a peer relationship with qualified practitioners; lead multiple, complex and heterogeneous groups</i>	<i>Take significant responsibility for the work of individuals and groups; lead and initiate activity</i>
GENERAL	Design (alone and in teams) under close supervision in a studio environment requiring the undertaking of simplified roles and responsibilities of an architect	Design (alone and in teams) under supervision in an architectural-practice-like environment to meet clearly defined building users' requirements and subject to constraints	Use creative design skills in collaboration with peers and other professionals to fulfil project briefs/ programmes and contracts while always meeting regulatory requirements	Direct processes of design and realisation which resolve and synthesise diverse and potentially conflicting requirements Extend and challenge current architectural discourse from a position of broad knowledge

Competence – role For many purposes, joining and functioning in various kinds of groups is a key component in putting knowledge and skill to effective use. Joining a group successfully requires individuals to adopt appropriate roles within the group. This requires the application of social skills and an understanding of the tasks of the group. Higher levels of competence are associated with playing multiple roles as well as with roles requiring leadership, initiative and autonomy. Higher competence is also associated with participation in more complex and internally diverse groups.

Award Standards - Architecture

	Level 6	Level 7	Level 8	Level 9
	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Competence-Learning to Learn	<i>Learn to evaluate own learning and identify needs within a structured learning environment; assist others in identifying learning needs</i>	<i>Take initiative to identify and address learning needs and interact effectively in a learning group</i>	<i>Learn to act in variable and unfamiliar contexts; learn to manage learning tasks independently, professionally and ethically</i>	<i>Learn to self-evaluate and take responsibility for continuing academic/professional development</i>
GENERAL	Demonstrate a complete understanding of the Level 6 standard for Architecture and recognition of the limitations of one's learning	Demonstrate a complete understanding of the Level 7 standard for Architecture and recognition of the limitations of one's learning	Demonstrate a complete understanding of the Level 8 standard for Architecture and recognition of the limitations of one's learning	Demonstrate a complete understanding of the Level 9 standard for Architecture and recognition of the limitations of one's learning
		Demonstrate a capacity to self-assess accurately at this level	Analyse critically one's own work and that of others and be able to formulate confident, independent judgements based on research, analysis and criticism	Demonstrate an ability to engage in and evaluate innovative experimental design with critical reflection
	Demonstrate skills for learning from experience at this level	Demonstrate skills for learning from experience at this level	Demonstrate skills for learning from experience at this level	Demonstrate skills for learning from experience at this level

Competence – learning to learn This strand encompasses the extent to which an individual can recognise and acknowledge the limitations of his/her current knowledge, skill and competence and plan to transcend these limitations through further learning. Learning to learn is the ability to observe and participate in new experiences and to extract and retain meaning from these experiences. While drawing on other aspects of knowledge, skill and competence, this sub-strand places an emphasis on the relationship of the learner to his/her own learning processes. This provides a basis for abstraction and generalisation that, in principle, facilitates regarding this as a separate sub-strand of competence.

	Level 6	Level 7	Level 8	Level 9
	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:	The graduate should be able to demonstrate:
Competence-Insight	<i>Express an internalised personal world view, reflecting engagement with others</i>	<i>Express an internalised personal world view, manifesting solidarity with others</i>	<i>Express a comprehensive internalised, personal world view, manifesting solidarity with others</i>	<i>Scrutinise and reflect on social norms and relationships and act to change them</i>
GENERAL	Demonstrate awareness of current societal concerns, their changing nature and their integration into the practice of architecture	Reflect on the role of the architect as the design leader and the influence of design on sustainable development of built and natural environments	Act with the consciousness that architectural practice may produce artefacts of long duration and significant impact on individuals, societies and the environment	Scrutinise and reflect on the accepted responsibilities of architects to clients, to building users and to all involved in the design and construction process and act to change these where appropriate
		Express awareness of social, community and ethical issues.	Demonstrate a consciousness of the need to act ethically within architectural practice	Distil from diverse experiences useful and sustaining insights which can be harnessed in articulating future purpose and direction within architecture.

Competence – insight Insight refers to ability to engage in increasingly complex understanding and consciousness, both internally and externally, through the process of reflection on experience. Insight involves the integration of the other strands of knowledge, skill and competence with the learner's attitudes, motivation, values, beliefs, cognitive style and personality. This integration is made clear in the learner's mode of interaction with social and cultural structures of his/her community and society, while also being an individual cognitive phenomenon. A learner's self-understanding develops through evaluating the feedback received from the general environment, particularly other people, and is essential to acting in the world in a manner that is increasingly autonomous.

Assessment

References

1. National Qualifications Authority of Ireland (2003) Policies and Criteria for the establishment of the NFQ (Chapter 3) Dublin.
2. National Qualifications Authority of Ireland (2003) Extract from Determinations for the Outline NFQ pp19-21 Dublin.
3. The Quality Assurance Agency for Higher Education (2000) Subject benchmark statements Architecture, Architectural Technology and Landscape Architecture, Gloucester
4. The Quality Assurance Agency for Higher Education (2009) Subject benchmark statement Architecture Draft for consultation, Gloucester
5. Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications, Article 46.
6. The Tuning Project Architecture <http://tuning.unideusto.org/tuningeu/index.php?option=content&task=view&id=9&Itemid=32> (Last Accessed 01/10/2010)



QQI

Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

www.QQI.ie