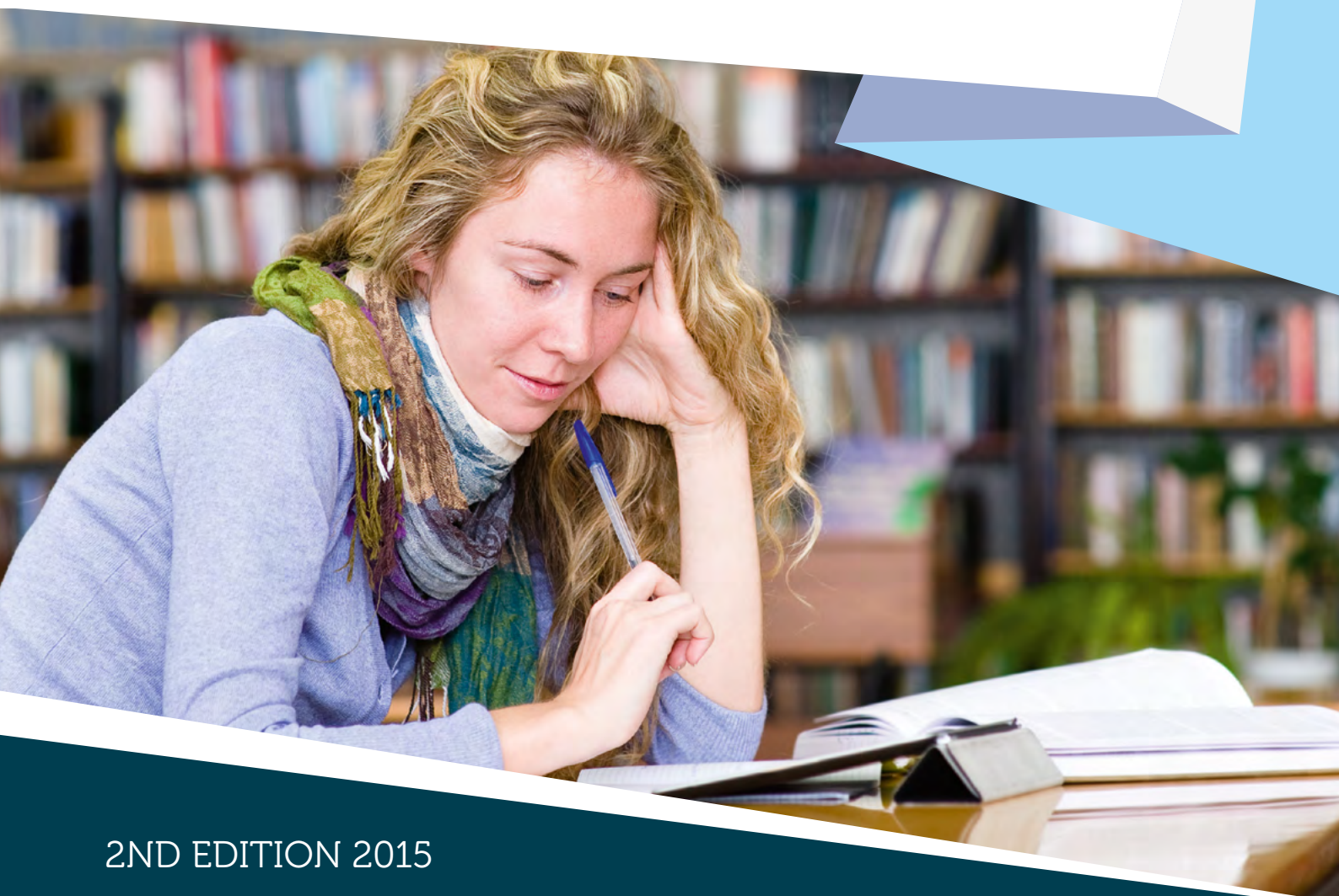![image](IUA | IRISH UNIVERSITIES ASSOCIATION logo)

# IRISH UNIVERSITIES' PHD GRADUATE SKILLS STATEMENT

2ND EDITION 2015

This skills statement,
describes the desired learning outcomes
and skills that PhD students will have developed
during their doctoral education and training. Students develop
these skills through their research, additional taught modules and shorter
training opportunities. The availability of skills development opportunities in Irish
universities reflects  student and discipline needs. Consequently, the skills
outlined are not a rigid standard, but rather a guideline which is fully
compatible with the EUA's Salzburg Principles[1], elaborated upon in the
Salzburg II Recommendations in 2010[2]. These principles recognise that
advancement of knowledge through original research is the core
component of PhD education, but PhD education must also
facilitate additional skills development opportunities.

1.  European University Association, Report on the Bologna seminar: doctoral programmes for the European knowledge society, Salzburg, 3-5 February 2005, p. 2.
    http://www.eua.be/fileadmin/user_upload/files/EUA1_documents/Salzburg_Report_final.1129817011146.pdf
2.  Salzburg II Recommendations in 2010
    http://www.eua.be/Libraries/Publications_homepage_list/Salzburg_II_Recommendations.sflb.ashx

# THE DEVELOPMENT AND AVAILABILITY OF SKILLS DEVELOPMENT OPPORTUNITIES IN IRISH UNIVERSITIES REFLECTS STUDENT AND DISCIPLINE NEEDS

Consistent with the National Strategy for Higher Education to 2030[3] and the EU Directorate-General for Research & Innovation's Principles for Innovative Doctoral Training[4] the Irish universities, Quality and Qualifications Ireland (QQI) and the Higher Education Authority of Ireland, support the objective of developing PhD graduates with the skills necessary to develop and manage their careers across a broad range of employment sectors, including academia. To achieve this, Irish universities provide structured support for students, incorporating research and generic skills development opportunities, empowering them to make a significant impact in their chosen career and contribute to Ireland's social, cultural and economic development. This support will also aid students in the successful completion of their studies.

3.  National Strategy for Higher Education to 2030 (2011)
    http://www.hea.ie/sites/default/files/national_strategy_for_higher_education_2030.pdf
4.  Principles for Innovative Doctoral Training  (2011)
    http://ec.europa.eu/euraxess/pdf/research_policies/Principles_for_Innovative_Doctoral_Training.pdf

# ALL IRISH UNIVERSITIES PROVIDE STRUCTURED SUPPORT FOR STUDENTS, INCORPORATING RESEARCH AND GENERIC SKILLS DEVELOPMENT OPPORTUNITIES

## This skills statement aims to:

1. Communicate to students, supervisors and employers the skills and attributes of a PhD graduate
2. Aid students, Graduate Schools, Graduate Programmes and other advisory committees in identifying students' skills development needs
3. Inform the enhancement of further skills development opportunities for all PhD students

In fulfilling these aims the skills statement further expands on the QQI National Framework of Qualifications PhD descriptors, which are as follows:

**Purpose:** This is a multi-purpose award-type. The knowledge, skills and competence acquired are relevant to personal development, participation in society and community, employment, and access to additional education and training.

**Knowledge-breadth:** A systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of a field of learning.

**Knowledge-kind:** The creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality to satisfy review by peers.

**Know-how and skill-range:** Demonstrate a significant range of the principal skills, techniques, tools, practices and/or materials which are associated with a field of learning; develop new skills, techniques, tools, practices and/or materials.

**Know-how and skill-selectivity:** Respond to abstract problems that expand and redefine existing procedural knowledge.

**Competence-context:** Exercise personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent contexts.

**Competence-role:** Communicate results of research and innovation to peers, engage in critical dialogue, lead and originate complex social processes.

**Competence-learning to learn:** Learn to critique the broader implications of applying knowledge to particular contexts.

**Competence-insight:** Scrutinise and reflect on social norms and relationships and lead action to change them.

To assist the development of structured PhD programmes, many countries have developed skills statements detailing categories of skills that students and supervisors may consider appropriate to students' skills development needs. Consequently this statement draws on skills statements developed elsewhere (see appendix).

The skills identified by the Irish Universities Association's Deans of Graduate Studies group as relevant to PhD student education is not an exhaustive list. Their relevance to students will vary according to experiential learning, disciplinary and professional development needs.

STRUCTURED SUPPORTS EMPOWER STUDENTS TO MAKE A SIGNIFICANT IMPACT IN THEIR CHOSEN CAREER

## RESEARCH SKILLS AND AWARENESS

- exhibit knowledge of advances and developments in their field
- demonstrate knowledge of research in related fields and disciplines
- comprehend and effectively employ appropriate research methodologies
- critically analyse and synthesise new and complex information from diverse sources
- formulate and apply solutions to research problems and effectively interpret research results
- exercise critical judgement and thinking to create new ways of understanding
- demonstrate, where appropriate, a knowledge of health and safety procedures and their application in the research environment
- have a broad awareness and knowledge of key relevant funding sources and grant application procedures
- appreciate basic principles of project and time management

## ETHICS AND SOCIAL UNDERSTANDING

- understand, and apply in their research, principles of ethical conduct of research, including avoidance of plagiarism, allocation of credit and authorship and definitions of research misconduct
- understand the relevance of research in society and the potential impact of research on individuals, groups and society
- where applicable, understand and apply the relevant guidelines for the ethical conduct of research involving people,  human tissue and animals

## COMMUNICATION SKILLS

- demonstrate effective writing and publishing skills
- effectively use and decide on appropriate forms and levels of communication
- communicate and explain research to diverse audiences, including both specialist and non-specialist
- teach and support the learning of undergraduate students when involved in teaching and demonstrating

## PERSONAL EFFECTIVENESS /DEVELOPMENT

- operate in an independent and self-directed manner, showing initiative to accomplish clearly defined goals
- appreciate key rhetorical skills, including how to persuade others of a viewpoint's merits, demonstrating and communicating credible suggestions to achieve one's aims
- appreciate the importance of initiating new projects, proactively reacting to newly identified needs or aiming to resolve persistent problems

- ability to handle difficulties in research or other professional activities in an appropriate way
- critically reflect on experiences and act on such in a cycle of self-improvement

- present themselves and their skills, attributes, experiences and qualifications, through effective job applications, CVs and interviews
- understand the broadest possible range of their employment opportunities

## TEAM-WORKING AND LEADERSHIP

- develop and maintain effective relationships with colleagues
- work in a collaborative environment
- awareness of their own working style, that of others, and how they interact
- understand how to acknowledge others' views, with a willingness to reflect on and critically appraise them
- understand leadership in team environments, recognising the strengths of team members and work effectively to achieve mutual goals

## ENTREPRENEURSHIP & INNOVATION

- understand the role of innovation and creativity in research
- demonstrate an awareness and understanding of intellectual property issues, appreciate and, where appropriate, contribute to knowledge exchange
- appreciate the skills required for the development of entrepreneurial enterprises in the public and private sectors
- understand different cultural environments, including the business world, and the contribution that knowledge transfer can make to society

## CAREER MANAGEMENT

- demonstrate an awareness of transferable skills and their applicability to both academic and non-academic positions and how they are applied in different circumstances
- take ownership of their own career management, forming credible career plans
- initiate and sustain networks and relationships that may encourage opportunities for employment

## APPENDIX: INTERNATIONAL SKILLS STATEMENTS AND DOCUMENTS REVIEWED

**The VITAE Researcher Development Framework (2011)**
https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae.pdf

**The Dublin Descriptors: A framework for qualifications in the European higher education area (2005)**
http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/050218_QF_EHEA.pdf

**Catholic University of Leuven: Competency Profile**
http://www.kuleuven.be/research/phd/

**University of South Australia: Research Degree Graduate Qualities**
http://www.unisa.edu.au/Research/Research-degrees/Graduate-outcomes/

**University of Canberra: Generic skills and attributes of University of Canberra graduates from higher degree by research programs**
https://guard.canberra.edu.au/policy/download.php?file_id=2522

**University of Queensland: Statement of Postgraduate Research Student attributes**
http://ppl.app.uq.edu.au/content/4.60.03-research-higher-degree-graduate-attributes

**Carnegie Mellon University, Pittsburgh, Pennsylvania: Transferable skills**
http://www.cmu.edu/career/career-prep/successguides/pdf/transferable-skills.pdf

**The University of Sydney: Graduate attributes project**
http://www.itl.usyd.edu.au/GraduateAttributes/interpretations.cfm

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