

Learning and Teaching
Academic Standards Project
Arts, Social Sciences and Humanities
GEOGRAPHY

Learning and Teaching
Academic Standards Statement
December 2010



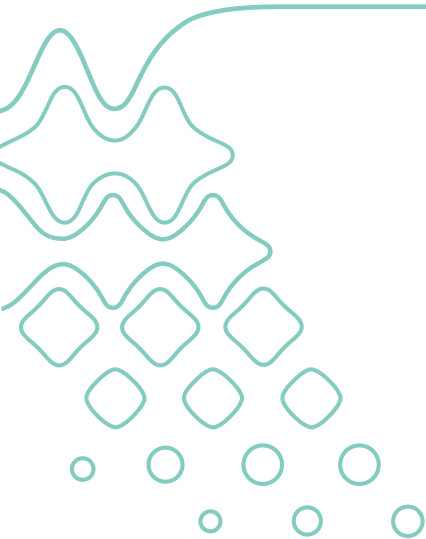
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GEOGRAPHY STANDARDS

Learning and Teaching Academic Standards Project

Geography Academic Standards Statement

December 2010

EXECUTIVE SUMMARY

The Learning and Teaching Academic Standards (LTAS) project was established to facilitate and coordinate discipline communities' definition and implementation of academic standards.

Professor Iain Hay was appointed by the Australian Learning and Teaching Council (ALTC) as Discipline Scholar for the Arts, Social Sciences and Humanities (ASSH) and given responsibility for leading selected ASSH discipline communities through the development of academic standards. Geography and History were nominated from the ASSH Group as demonstration disciplines for this work by the Australasian Council of Deans of Arts, Social Sciences and Humanities (DASSH) and separately by a national forum of education, business and government leaders convened by the ALTC in February 2010.

The Learning and Teaching Academic Standards Statement for Geography is intended to offer a succinct description of the nature and extent of the discipline and to distinguish the threshold, ie minimum, level of achievement that can be expected of an Australian bachelor level graduate with a major in Geography. The Statement also sets out careers Geography graduates might pursue.

Initial versions of the Statement were prepared by a small Discipline Reference Group representing professional bodies, academics, and employers. This group met throughout the year, its members providing ongoing expert advice on the draft Statement, facilitating engagement with key stakeholders, and reviewing feedback to write the final Statement.

In preparing the draft Statement, the reference group drew from their own extensive and diverse disciplinary expertise and referred to relevant national and international benchmarks including the United Kingdom's Quality Assurance Agency (QAA) benchmark statements, European Tuning descriptors, Dublin descriptors, and the evolving Australian Quality Framework.

The draft Statement was completed in June 2010 and a consultation paper prepared. These documents were presented to the Australian Heads of Geography programs, discussed in a panel session at the joint New Zealand Geographical Society/Institute of Australian Geographers Conference in Christchurch in July, and then circulated widely around Australia. Professor Hay discussed the papers at 10 well-advertised public meetings across the country in August and September and

as an invited guest at several conferences and events. An independent consultant was invited to provide an educational review of the Statement.

The consultation period concluded at the end of September 2010. Feedback from the public meetings was captured and, together with the consultant's advice and 26 written submissions, was considered by the Discipline Reference Group as it wrote the final Statement. The Learning and Teaching Academic Standards Statement for Geography was finalised in late October. Since then the Statement has been endorsed by following organisations: Australian Academy of Science's National Committee for Geography, Australian Geography Teachers' Association, Geographical Society of New South Wales, Institute of Australian Geographers, Royal Geographical Society of Queensland, and Royal Geographical Society of South Australia.

Work in the LTAS project has demonstrated means by which a discipline community can develop and settle upon a shared understanding of academic standards in their discipline. It has prompted peak bodies representing a range of ASSH disciplines, including Anthropology, Political Science, Population Studies, Sociology, and Theology to begin their own work to develop standards statements. The project has also sparked significant supplementary work in Geography, History, and allied ASSH disciplines to examine the ways in which the standards statements might be implemented and the standards 'delivered'.

Professor Hay and the Geography Discipline Reference Group are grateful to all who contributed to the development of the Geography Standards Statement. The outcome is truly a community effort.

Project Leaders

Discipline Scholar: Professor Iain Hay

Project Officer: Ms Jill Rashleigh

1. Learning and Teaching Academic Standards Project Background

The Australian Government is developing a new Higher Education Quality and Regulatory Framework which includes the establishment of the Tertiary Education Quality and Standards Agency (TEQSA).

TEQSA will be a national body for regulation and quality assurance of tertiary education against agreed standards. In developing the standards, the Australian Government is committed to the active involvement of the academic community. The Australian Government has commissioned the ALTC to manage aspects of the LTAS component of the framework. The approach was designed to ensure that discipline communities would define and take responsibility for implementing academic standards within the academic traditions of collegiality, peer review, pre-eminence of disciplines and academic autonomy.

In 2010, both directly through a specific contract and indirectly through base funding of the Australian Learning and Teaching Council, the Australian Government funded a one-year demonstration project to define minimum discipline-based learning outcomes as part of the development of Learning and Teaching Academic Standards.

The project took as its starting point the award level descriptors defined in the Australian Qualifications Framework (AQF). Threshold learning outcomes (TLOs) were defined in terms of minimum discipline knowledge, discipline-specific skills and professional capabilities including attitudes and professional values that are expected of a graduate from a specified level of program in a specified discipline area. The process took account of and involved the participation of professional bodies, accreditation bodies, employers and graduates as well as academic institutions and teachers. These representatives of the discipline communities were encouraged to take responsibility for the project and the outcomes within broad common parameters. Some disciplines extended the brief to begin consideration of the implications of implementing standards at institutional level.

1.1 Discipline areas encompassed in the demonstration project

Broad discipline areas were defined according to Australian definitions of Field of Education from the Australian Standard Classification of Education. They correspond to the most common broad structural arrangements of faculties or aggregates of departments within Australian universities.

Eight broad discipline groups participated in 2010:

- architecture and building
- arts, social sciences and humanities
- business, management and economics
- creative and performing arts
- engineering and ICT
- health, medicine, and veterinary science
- law
- science.

Discipline Scholars were appointed to lead each discipline area. The key deliverable for each Discipline Scholar was the production of a document of minimum learning outcomes for a specified discipline at an agreed AQF level or levels. This booklet represents that outcome for this discipline.

2. Geography in the Learning and Teaching Academic Standards Project

2.1 Scope

This statement is intended to cover programs of study that lead to the award of a bachelor degree – defined as Level 7 in the Australian Qualifications Framework (AQF) – with a major in the discipline of **Geography**. The statement does not cover other levels of qualification, eg honours degrees, masters degrees.

This statement applies to those bachelor degrees where a set of topics/courses in a particular subject area (namely Geography) has been designated or recognised by the higher education provider (HEP) as constituting a major. Although a major might generally be understood to comprise a sequence of subjects in a particular discipline from an introductory level through to an advanced level, this statement does not assume any specific definition of a major, in recognition of the different ways in which HEPs organise majors.

This statement does not assume any specific nomenclature for a degree within which the major is obtained. It recognises the diversity of description among providers. Common nomenclature for bachelor degrees with a major in Geography includes: Bachelor of Arts, Bachelor of Health Science, Bachelor of Letters, Bachelor of Science, and Bachelor of Social Science.

This statement can be used to appraise degrees with titles other than those indicated above. It is the responsibility of the individual HEP to relate any pathway within a degree to the appropriate standards statement(s). Where Geography is studied as part of a joint program, double degree or double major then this statement should be applied in conjunction with the other relevant standards statement(s).

The threshold learning outcomes (TLOs) set out in these standards represent the minimum learning outcomes expected of a graduate with a major in the discipline at the bachelor level.

This statement offers no direction on the suitability of any set of criteria underpinning HEP decisions relating to student admission for a particular degree program or major.

This statement offers no advice on the suitability of any set of learning and teaching activities to support students in their achievement of the national standards.

This statement offers no direction about the suitability of assessment activities to demonstrate achievement of the standards.

2.2 Geography and History as demonstration disciplines

The Australasian Council of Deans of Arts, Social Sciences and Humanities (DASSH) recommended Geography and History as demonstration disciplines for this project. That recommendation was supported at the ALTC National Standards Forum held in Melbourne in February 2010. The forum was attended by senior representatives of key higher education stakeholder groups including learned academies, eg Academy of the Social Sciences in Australia, the Australian Academy of the Humanities; councils of deans; professional and accrediting bodies; and universities. In addition to supporting work on Geography and History, the forum also endorsed a focus on the development of eight to 10 learning outcomes at the bachelor degree level.

Various reasons for the selection of Geography¹ and History as demonstration disciplines were presented by both DASSH and February forum participants. These included: (i) unambiguous location of History within ASSH faculties around Australia compared with the challenges associated with Geography's

manifold locations in different university structures; (ii) distinctive methodological and conceptual challenges associated with History and Geography; (iii) different levels of attention given to these disciplines in benchmarking processes in other jurisdictions (for example, History is well-embedded in QAA, Tuning-Europe, and Tuning Latin America whereas Geography has explicit benchmarks in QAA only); (iv) opportunity to ensure timely engagement with recent developments in national school curricula for Geography and History; and (v) the opportunity presented by the Discipline Scholar's academic background as a geographer.

Immediately following the February forum a work plan for the year was mapped out, beginning with the need to gain support from peak Geography and History professional societies for the project. Accordingly, the Discipline Scholar requested and gained from the Presidents of the Australian Historical Association (AHA) and the Institute of Australian Geographers (IAG) their professional society's agreement to engage with the process of standards setting.

As a result of this demonstration project involving Geography and History, other disciplines within the Arts, Social Sciences and Humanities will have available to them examples of carefully considered standards and the process by which they were devised. These should offer some guidance to other disciplines as they commence the process of defining standards. Indeed, during 2010 the Discipline Scholar was able to draw from the early experiences of Geography and History to offer support to representatives from other disciplines exploring their own development of standards. These disciplines included Anthropology, Asian Studies, Criminology, Demography/Population Studies, Food Studies, Political Science, Sociology, and Theology.

2.3 Consultation and development process

In consultation with DASSH and IAG, a small Discipline Reference Group (DRG) was established by the Discipline Scholar in March. This group comprised the President of the IAG, a scholar nominated by DASSH, three discipline experts, a recent Geography graduate not enrolled in postgraduate work, an employer representative, and a discipline expert with substantial experience in learning and teaching standards setting in a jurisdiction other than Australia². The DRG was intended to be small and responsive; credible to the broader disciplinary community; and as spatially and academically representative as its small size would allow. Its role was to: provide advice to the Discipline Scholar on the direction and implementation of the Learning and Teaching Academic Standards (LTAS) project; draft and/or review drafts of project-related material, including statements of threshold learning outcomes; and facilitate and support engagement with key discipline group stakeholders.

The DRG's first meeting was held in March 2010. The Group identified a lead writer to write a first draft of the threshold learning outcomes. The threshold learning outcomes are intended to represent the minimum standards of achievement for bachelor degree graduates with a major in the discipline of Geography. Efforts were made to draft the standards in alignment with the emerging Australian Qualifications Framework (AQF), which was under revision for the duration of the development process³. Reference was also made to other relevant benchmark statements. These included the United Kingdom's Quality Assurance Agency (QAA) benchmark statements, European Tuning descriptors, and Dublin descriptors. Consideration was also given to Australian curriculum documents for schools to ensure appropriate engagement and continuity between school and university expectations⁴.

With the consent of both the Geography and History DRGs, groups exchanged draft documents to stimulate ideas during their development. ALTC Discipline Scholars in eight discipline groups that included Creative and Performing Arts, Engineering and ICT, and Law also met formally for two-three days each month for the duration of the LTAS project to discuss and review progress. These meetings provided a useful opportunity to 'compare notes' about development and consultation processes. During April, the Discipline Scholar met in Washington DC with colleagues who have been active in QAA benchmarking and Tuning processes⁵. These meetings yielded helpful insights on consultation and development and were used as an opportunity to disseminate news of standards developments in Australia.

The first version of Geography threshold learning outcomes was circulated within the DRG, reviewed, and redrafted ahead of the group's second meeting in May 2010. In the wake of that meeting, refined versions of the draft standards statements, including material outlining the nature and extent of the discipline and graduate careers, were prepared⁶. These were presented by the Discipline Scholar and members of the reference group to discipline communities at a panel session during the joint conference of the New Zealand Geographical Society and Institute of Australian Geographers held in Christchurch, New Zealand in July as well as to the annual meeting of the Australian Heads of Geography programs held in conjunction with that conference.

A key objective of this demonstration project has been to ensure that relevant discipline communities have comprehensive and appropriate opportunities to engage with and participate in the standards development process. Accordingly, throughout the entire project – but particularly after the DRG had prepared draft standards – the Discipline Scholar led both an extensive campaign to disseminate information about the project and a long, well-advertised program of consultation. Drawing from advice from the DRG, details of all meetings held as part of this process were advertised nationally and to a lesser degree internationally through, for instance, emails targeted at key individuals and stakeholder organisations, listserve announcements, eg iag-list, as well as the IAG's web page and newsletter.

Throughout August and September 2010, stakeholders were offered the opportunity, as individuals and/or organisational representatives, to make formal responses to the draft standards statements. This lengthy consultation period was considered necessary to allow stakeholders, eg professional societies, university departments, learned academies, an opportunity to meet, discuss the standards, and develop collective responses. The formal consultation document was circulated to over 100 stakeholders on 30 July with a 30 September closing date for submissions. Copies were also sent to the vice-chancellors of all Australian universities, an initiative that proved successful in heightening the profile of the statements and stimulating responses.

Acknowledging the diverse ways in which hitherto untested standards might be interpreted by stakeholders and institutions across the country, and reflecting practices adopted in other major national education consultations in Australia, eg 2010 AQF revisions, an essentially open-ended consultation strategy was adopted. Interested parties were invited to provide their written comments on the Learning and Teaching Academic Standards Statement for Geography and a set of guiding, though not limiting, questions for consideration was proposed:

1. Does the Learning and Teaching Academic Standards Statement for Geography offer a complete and accurate representation of the nature and extent of the discipline and of graduate careers?
2. Are the threshold learning outcomes set at an appropriate level to be understood as *minimum* expectations for a bachelor graduate?
3. Can each of the eight draft threshold learning outcomes (TLOs) be measured and demonstrated to an external evaluator such as TEQSA?
4. Other than quality assurance, to what constructive ends can you see the Geography standards being put?
5. In what ways would you like to see the Learning and Teaching Academic Standards Statement for Geography used to evaluate undergraduate Geography programs?
6. How often, how, and by what organisation would you like to see the Learning and Teaching Academic Standards Statement for Geography reviewed?

These questions focused on the specific content of the Learning and Teaching Academic Standards Statement for Geography and some of the ways in which standards might be used and how they might be kept current.

The consultation process was supported by extensively advertised state information sessions, departmental visits, and conference presentations by the Discipline Scholar in Adelaide, Canberra (x 2), Coolangatta, Hobart, Melbourne (x 2), Perth (x 2), and Sydney (x 2) during August and September 2010. Extensive notes were taken at each of these sessions and provided to members of the DRG.

A total of 26 written submissions on the Learning and Teaching Academic Standards Statement for Geography were received by the end of the formal consultation period. As Appendix 2 shows, these came from a wide range of individuals and institutions, including the Royal Dutch Geographical Society, the Commander of the Royal Australian Navy Hydrographic School, and the Planning Institute of Australia. As stated in the consultation document, and except where respondents specifically requested confidentiality, all written submissions received were made public on the ALTC website.

In addition to the broad national consultation, higher education consultant Associate Professor Janice Orrell⁷ was employed to review the draft standards Statement with a view to offering the DRG dispassionate pedagogic advice on their content.

Newsletters setting out progress on the project were also sent electronically in May, August and November to a growing number of stakeholders and interested parties. The final of these reached over 1,000 individuals and organisations. An ALTC-hosted web presence was also maintained for the duration of the project.

In October 2010, careful revisions to the draft standards were made by the Discipline Reference Group in light of advice from Associate Professor Orrell and the discipline community. The Learning and Teaching Academic Standards Statement for Geography was finalised in late October. Since then it has been endorsed by:

- Australian Academy of Science's National Committee for Geography
- Australian Geography Teachers Association
- Geographical Society of New South Wales
- Institute of Australian Geographers
- Royal Geographical Society of Queensland
- Royal Geographical Society of South Australia.

The Learning and Teaching Academic Standards Statement for Geography is now available for quality assurance and to Australia's geographers for an array of other uses as suggested by stakeholders which could include: program design and curriculum development; discipline 'stocktaking' as a foundation for future review; benchmarking for reciprocal study abroad; promoting Geography to domestic and international students as well as to the wider community; and as a 'talking aid' in conversations with prospective students, parents, career counselors, employers, politicians, professional bodies, and scholars in allied disciplines.

1. Although Geography was included within the Arts, Social Sciences and Humanities Discipline Group, all aspects of the discipline, eg physical, human-environment relations, Geographical Information Systems, were considered in the establishment of Geography standards.

2. Full details of Discipline Reference Group membership and the group's terms of reference are set out at Appendix 1.

3. Over the period of the LTAS project, three different versions of the draft AQF were released: September 2009, July 2010 and September 2010.

4. Appendix 3 sets out the final Australian threshold learning outcomes for Geography against benchmarks from other jurisdictions.
5. These colleagues included: Professor Michael Bradford, Professor Mick Healey and Mr Karl Donert. Professor Bradford is Joint Leader of Change Academy – a partnership between the Higher Education Academy and the Leadership Foundation – and a member of the original QAA benchmarking group for Geography (2000). Mr Donert is the coordinator of the large and influential Socrates Thematic network for Geography in higher education (HERODOT) and President of the European Association of Geographers. Professor Healey is former Director of the Centre for Active Learning; Director Geography discipline Network, Senior Advisor Geography, Earth and Environmental Sciences Subject Centre, Honorary Professor University of Queensland, and a member of the original QAA benchmarking group for Geography.
6. It is worth noting that ALTC Discipline Scholars were instructed to lead preparation of statements comprising only: (a) a brief (say two paragraph) statement setting out the nature and extent of the discipline; and (b) six-eight threshold learning outcomes.
7. Associate Professor Janice Orrell was a foundation director at the Carrick Institute for Learning and Teaching in Higher Education (now ALTC) and prior to that was the Academic Coordinator at Flinders University where she supported staff and academic units in their enhancement of learning and teaching.

3. Learning and Teaching Academic Standards Statement for Geography

The Learning and Teaching Academic Standards Statement for Geography is structured as follows. The nature and extent of the discipline is described in the first section. There follows a short summary of the fields of work a bachelor-level student graduating with a major in Geography might be equipped for and might be expected to enter. The final section sets out a detailed description of the threshold (core/minimum) skills, knowledge and capabilities of a bachelor degree graduate with a major in Geography.

Between six and eight threshold learning outcomes were sought, to ensure that the threshold learning outcomes (TLOs) were neither too generic nor too specific and prescriptive of content. Efforts have been made to ensure minimal overlap across the TLOs and, as far as possible, that each is defined independently. However, it is expected that graduates will demonstrate a broad and coherent assimilation of the TLOs. Finally, it is crucial to interpret the TLOs in light of the description of the nature and extent of the discipline.

3.1 Nature and extent of Geography

Geography is the study of place, space and the environment. Geographers investigate the character of places, the distribution of phenomena across space, biophysical processes and features, and dynamic relationships between humans and environments.

Geographers ask questions about why these phenomena and relationships are like they are and how they could be; how societies and environments are connected to one another; how and why they change; and how and why their characteristics vary across time and space at different scales. Geography answers questions spanning the local to the global, in the past, present and future.

Geography is fundamentally interdisciplinary. It is one of the few disciplines that encompass very different ways of knowing, from the natural and social sciences and the humanities. Geographers are, therefore, uniquely equipped to understand and address critical problems facing the world. Geographers are motivated by issues such as social and environmental justice, and the efficient, equitable and sustainable use of resources.

Geographical thought develops knowledge and understanding from three complementary concepts.

The first is the concept of *place*. Geographers explore what places mean, how people shape places, and how places shape our lives. This brings many areas of geography together in an holistic approach to understanding the characteristics of and relationships between localities, cities, regions, countries and continents.

The second concept is *environment*. Geographers investigate biophysical environments encompassing terrestrial, marine and atmospheric systems. These investigations include the nature, dimensions and causes of environmental change; the reciprocal relationships between the environment and people; and the resources biophysical systems provide and their sustainability.

The third concept is *space*. Geographers examine how, why and with what effect diverse phenomena vary across the surface of the earth. Geographers understand space to be configured by the movement and organisation of people and materials as well as being a location for social and material action.

Graduate careers

Geography graduates are qualified to understand the world as an integrated whole. They use a powerful mix of geographical and interdisciplinary skills to solve a range of problems. They can analyse and synthesise complex environmental, economic, social and political information to enable a geographical understanding of humans, environments and the dynamic relationships between them. Geography graduates are skilled in a range of research techniques, which can include

fieldwork, survey design, statistical analysis, spatial data analysis (including Geographic Information Systems), and other forms of qualitative and quantitative analysis. They are proficient at retrieving, synthesising and communicating information, as well as managing data and drawing on different sources of knowledge. They think critically and creatively, and work effectively in teams and on their own initiative.

These skills and attributes make Geography graduates highly employable in a wide variety of fields across both government and non-government sectors. Their flexibility is demonstrated in a diversity of career paths. Fields of employment include, but are not limited to⁸:

- climate change assessment and planning
- climatology and meteorology
- coastal, marine and hydrographic analysis
- community development
- conservation, heritage and land management
- consulting and project management
- education
- environmental and social impact assessment
- environmental monitoring and management
- environmental science
- geographic information systems (GIS)
- geomorphology
- hazard assessment, mitigation and disaster management
- international development and aid
- local and regional development.
- mapping and cartography
- market research
- natural resource management and agriculture
- planning (including urban, regional, environmental, social and transport planning)
- population analysis
- public policy
- public safety, defence and national security
- real estate and land development
- remote sensing
- research
- social services and welfare
- surveying and geomatics
- sustainability
- tourism management

3.2 Threshold Learning Outcomes for Geography

Upon completion of a bachelor degree with a major in Geography, graduates will be able to:

- | | |
|--|--|
| <i>Knowing</i> | <ol style="list-style-type: none">1. Demonstrate a coherent geographical understanding of trends, processes and impacts that shape Australian and other environments and/or societies at different spatial and temporal scales.2. Demonstrate an understanding of Geography as an academic discipline, including awareness of its concepts, history and principal subfields, whilst acknowledging the contested, provisional and situated nature of geographical understanding. |
| <i>Thinking</i> | <ol style="list-style-type: none">3. Apply geographical thought creatively, critically and appropriately to specific spaces, places and/or environments.4. Recognise, evaluate and synthesise various views, arguments and sources of knowledge pertinent to solving environmental and social problems. |
| <i>Investigating and problem-solving</i> | <ol style="list-style-type: none">5. Resolve geographical questions by ethical means, applying evidence-based knowledge and appropriate research techniques, including those associated with field work. |
| <i>Communicating</i> | <ol style="list-style-type: none">6. Communicate geographical perspectives and knowledge effectively to specialist and non-specialist audiences using appropriately selected written, oral and visual means. |
| <i>Self-directing and collaborating</i> | <ol style="list-style-type: none">7. Contribute effectively as a member or leader of diverse teams working in geographical or multidisciplinary contexts.8. Reflect on and direct their intellectual and professional development as geographers. |



4. Notes on the Threshold Learning Outcomes for Geography

As noted in Section 3, it is crucial to interpret the threshold learning outcomes in light of the description of the nature and extent of the discipline. Each TLO embraces the understanding of Geography that is set out in the statement of the discipline's 'nature and extent'. So, when referring to geographical processes, issues and ideas, for instance, TLOs do not repeat and elaborate on the earlier definition.

The notes that follow are intended to illuminate the TLOs through comparison with relevant benchmarks in Australia and overseas and to offer non-prescriptive guidance on the interpretation of each TLO. The notes should not be perceived as a more detailed TLO in disguise; instead they are intended to help stakeholders understand the meaning of the TLOs where such explanation is appropriate. While examples are used to assist in clarifying meaning they are indicative only and certainly not exhaustive or directive. The notes should also be regarded as *evolving*. The Discipline Reference Group's intention is that these notes will continue to be developed and elaborated upon as the TLOs are applied as part of quality assurance or other processes.

TLO1: Demonstrate a coherent geographical understanding of trends, processes and impacts that shape Australian and other environments and/or societies at different spatial and temporal scales.

1. TLO 1 is linked to the expectation set out in the Australian Qualifications Framework Level 7 (Bachelor Degree) that graduates have "a coherent body of knowledge, with depth in the underlying principles and concepts in one or more disciplines ..." as well as to the requirement that graduates have "the cognitive and technical skills to demonstrate a broad understanding of knowledge with depth in some areas".
2. Where the QAA (2007) benchmark statement for Geography specifies separately different elements of geographical understanding, eg "Describe and exemplify the nature of change within human environments"; "Describe and exemplify the nature of change within physical environments"; "Describe and exemplify the reciprocal relationships between physical and human environments"; "Describe and exemplify the diversity and interdependence of places at various spatial scales"; this TLO presents a singular appreciation of geographical processes, trends and impacts whilst acknowledging – through the statement of Geography's nature and extent – the full range of the discipline. At the same time, however, the TLO points to the need for graduates to be able to demonstrate understanding of Australian geographies as well as those in broader contexts.
3. For this TLO, the character of 'geographical understanding' can be read from the earlier statement in this document setting out the 'nature and extent of Geography'.
4. This TLO does not imply that graduates will have an all-inclusive understanding of geographical approaches to understanding biophysical and/or human processes, trends and impacts. Instead, it is expected that they will have an understanding of selected approaches that reflect their own specific interests within the discipline, the organisational structure of the program within which they earn their degree, and the expertise of academic staff in that program.

TLO 2: Demonstrate an understanding of Geography as an academic discipline, including awareness of its concepts, history and principal subfields, whilst acknowledging the contested, provisional and situated nature of geographical understanding.

1. Like TLO 1, TLO 2 is linked to the expectation set out in the Australian Qualifications Framework Level 7 (Bachelor Degree) that graduates have "a coherent body of knowledge, with depth in the

underlying principles and concepts in one or more disciplines ..." as well as to the requirement that graduates have "the cognitive and technical skills to demonstrate a broad understanding of knowledge, with depth in some areas".

2. This TLO has parallels in the QAA (2007) benchmark statement for Geography which requires that graduates be able to "Describe and exemplify the diversity of approaches to the generation of knowledge and understanding deriving from experience of the epistemologies of the humanities, social and natural sciences". It also captures the QAA expectation that graduates be capable of illustrating "the contested and provisional nature of knowledge and understanding".
3. An intention of this TLO is to ensure that students appreciate the relationship between the partial or focused understanding they have developed of geographical approaches to understanding (TLO 1) and Geography's broader intellectual territory.
4. This TLO recognises that Geography is receptive to and enriched by perspectives from other discipline areas and other knowledges. This includes Indigenous perspectives. It also recognises the context-dependence of much geographical understanding.
5. Principal subfields of Geography include, but are not limited to, biogeography, climatology, cultural geography, economic geography, geographical information systems, geomorphology, hydrology and urban geography.

TLO 3: Apply geographical thought creatively, critically and appropriately to specific spaces, places and/or environments.

1. TLO 3 is aligned with the requirements of the Australian Qualifications Framework Level 7 (Bachelor Degree) that graduates have "cognitive skills to critically review, analyse, consolidate and synthesise knowledge" and that they be capable of demonstrating "the application of knowledge and skills in diverse contexts".
2. A section within the QAA (2007) benchmark statement for Geography deals with "Intellectual (thinking) skills" and this TLO embraces several of the statements listed there. These include, "Synthesise information" and "Identify/formulate questions or problems".
3. There is an assumption within this TLO that geographical thinking be supported by evidence appropriate to the application.

TLO 4: Recognise, evaluate and synthesise various views, arguments and sources of knowledge pertinent to solving environmental and social problems.

1. TLO 4 aligns with the Australian Qualifications Framework Level 7 (Bachelor Degree) expectation that graduates have the "cognitive skills to review, analyse, consolidate and synthesise knowledge ..."
2. This TLO also takes up two statements set out in the QAA (2007) benchmark statement for Geography: "Recognise and articulate weaknesses in the arguments of others" and "Develop a reasoned argument".

TLO 5: Resolve geographical questions by ethical means, applying evidence-based knowledge and appropriate research techniques, including those associated with field work.

1. TLO 5 takes up and elaborates on the Australian Qualifications Framework Level 7 (Bachelor Degree) expectation that graduates will have "cognitive skills to ... identify and provide solutions to complex problems".
2. The 2007 QAA benchmark statement for Geography sets out four 'discipline-specific skills', all of which are related to the conduct of geographical research. These move from research design issues to approaches to collecting geographical information, then to analysing and finally to presenting geographical knowledge and information. The benchmark statement also includes a separate

statement noting an expectation that students be able to “Interpret and use numerical and statistical information”. Where the QAA statement focuses on student competence in elements of the process by which geographical questions might be resolved, TLO 5 emphasises a demonstrated ability to actually resolve geographical questions. The TLO also adds an expectation that such resolution be achieved by means understood to be ethical.

3. In the context of this TLO, “ethical means” refers to the prevailing conventions of the discipline, taking account of relevant regulatory mechanisms such as codes of professional ethics and institutional research ethics guidelines, as well as carefully considered, publicly defensible personal conduct. The TLO implies that graduates will have an understanding of the meaning and consequences of plagiarism.
4. The reference in this TLO to evidence-based knowledge needs to be situated against Geography’s span of the natural and social sciences and humanities and the various understandings of appropriate evidence within those epistemologies.
5. In satisfying this TLO – and following the QAA (2007) lead – students could be expected to be able to employ research techniques that include, but are not limited to, archival and textual analysis, field observation, focus groups, laboratory techniques, surveys, and the accurate interpretation of remotely sensed data.

TLO 6: Communicate geographical perspectives and knowledge effectively to specialist and non-specialist audiences using appropriately selected written, oral and visual means.

1. TLO 6 aligns with the Australian Qualifications Framework Level 7 (Bachelor Degree) expectations that graduates will have “communication skills to present a clear, coherent and independent exposition of knowledge and ideas”.
2. This TLO matches quite closely the requirement in the QAA (2007) benchmark statement for Geography requiring the ability to “Communicate geographical ideas, principles and theories by written, oral and visual means”. However, TLO 6 offers a noteworthy qualifier about the intended audiences of those communications. It requires graduates not only to be able to communicate sometimes complex discipline-specific information to those who are already familiar with the ideas and language that surrounds that information, but also to “translate” that specialised information into terms that might be understood by a wider audience.
3. It is assumed that unless the specific requirements of a degree program or component thereof require it, the medium of communication will be English and the ability to communicate will involve appropriate use of geographical terminology.
4. There is an assumption within this TLO that effective communication requires the use of technologies – broadly interpreted – that are appropriate to the message, the medium and the audience.
5. Appropriately selected written, oral and visual means include, for example, annotated bibliographies, blogs, essays, maps, posters, reports, talks to peers or community members, or web pages.

TLO 7: Contribute effectively as a member or leader of diverse teams working in geographical or multidisciplinary contexts.

1. TLO 7 is linked with expectations of the Australian Qualifications Framework Level 7 (Bachelor Degree) that graduates will demonstrate “application of knowledge and skills ... in collaboration with others within broad parameters”.
2. Where the QAA (2007) benchmark statement for Geography requires graduates to be able to “Perform assigned tasks within a group setting and take part in group discussions”, this TLO points to additional qualities. First, it emphasises a capacity to work in diverse teams. Diversity of team membership might include any or all of a range of variables such as disciplinary background, age, gender or cultural background. The TLO also indicates that a graduate may be capable of leading

such groups as well as being an effective member of them. Leadership capabilities are assumed here to embrace the capacity to work as a member of a team.

TLO 8: Reflect on and direct their intellectual and professional development as geographers.

1. TLO 8 is linked with expectations of the Australian Qualifications Framework Level 7 (Bachelor Degree) that graduates “demonstrate the application of knowledge and skills with responsibility and accountability for their own learning and professional practice...”
2. This TLO demands a slightly higher degree of autonomy from graduates than the QAA (2007) benchmark for Geography which lists the expectation of honours graduates to “Undertake independent/self-directed study/learning (including time management) within a supportive framework”.

Appendix 1: Discipline Reference Group: Terms of reference and membership

Terms of reference

The reference groups will support the implementation of the Learning and Teaching Academic Standards project as defined in the project plan for each discipline group. Discipline reference groups will be convened by the Discipline Scholars.

The discipline reference groups will have the following terms of reference:

- to provide advice to the Discipline Scholar on the direction and implementation of the Learning and Teaching Academic Standards project
- to draft and/or review drafts of project-related material, including statements of threshold learning outcomes
- to facilitate and support engagement with key discipline group stakeholders.

Membership

- The discipline reference group will be chaired by the relevant Discipline Scholar
- Each reference group will have members nominated by the discipline community
- Members will be appointed for the duration of the project, which is until December 2010
- The structure of the discipline reference group is:
 - *Chair:* Discipline Scholar
 - President of the discipline's principal national body (or their nominee)
 - One member drawn from either the Council of Deans of Arts, Social Sciences and Humanities (DASSH) or DASSH's Network of Associate Deans (Academic)
 - Three discipline experts (covering various parts of higher education sector such as Innovative Research Universities and Group of Eight. Discipline experts should also have some demonstrated interest in learning and teaching.)
 - One discipline expert with substantial experience in learning and teaching standards setting in a jurisdiction other than Australia, eg QAA
 - One relevant employer representative
 - One recent graduate/postgraduate from the discipline working outside the tertiary sector.

If possible, the committee should include at least one fellow of an appropriate Australian learned academy, eg Australian Academy of Humanities, Australian Academy of Science, Australian Social Sciences Academy. To the extent that it is practicable, there should be some geographical spread of reference group membership across the country.

Meetings

Each discipline reference group will meet regularly (approximately every six weeks) for approximately one to two hours per meeting; however, the chair may call extra meetings to discuss specific matters or may call on individuals for informal advice and support.

Most meetings will be conducted by teleconference; however face-to-face meetings at ALTC offices (Sydney) may be required on two occasions throughout the year. Other communication will be undertaken using email or teleconferencing.

The chair may invite other person/s to attend any meeting or meetings as required, to assist with the achievement of the reference group's role and responsibilities.

Meetings will be organised by the Discipline Scholar or their project officer.

For face-to-face meetings attended by members of the discipline reference group, the cost of travel, accommodation and meals will be provided on request.

Geography Discipline Reference Group – Membership

Role	Member
Chair and Discipline Scholar	Professor Iain Hay is ALTC Discipline Scholar for the Arts, Social Sciences and Humanities and Professor of Geography in the School of the Environment at Flinders University, South Australia. His principal research interests revolve around geographies of domination and oppression. In 2006, Iain was named Australian University Teacher of the Year and in 2008 was admitted as a Senior Fellow of the Higher Education Academy. He is currently President of the Institute of Australian Geographers.
President or nominee; peak discipline body	Professor Lesley Head is an Australian Laureate Fellow and Director of the Australian Centre for Cultural Environmental Research at the University of Wollongong. Her research interests are in human-environment interactions, using both cultural and physical geography. She is immediate Past President of the Institute of Australian Geographers and has chaired the National Committee for Geography of the Australian Academy of Science.
DASSH nominee	Dr Stephen Legg is a Senior Lecturer and Honours Coordinator in the School of Geography and Environmental Science, Monash University, and is currently Associate Dean (Education) of Arts. His teaching encompasses environmental management, environmental history, the history of Geography, sustainability, urban and regional studies, globalisation and development. His research focuses on late nineteenth and early twentieth century historical geography and environmental history. Stephen has been heavily involved in curriculum design at primary and secondary school levels in the areas of Geography, History, and Studies of Society and Environment and more broadly in teaching and learning in the arts and sciences at the tertiary level. He is a member of the executive committee of both the Associate Deans (Teaching) Network for Arts, Social Sciences and Humanities in Australasia and the Australian Forest History Society.
Discipline expert	Dr Robyn Bartel is a Senior Lecturer and the Course Coordinator of the Urban and Regional Planning program and the Bachelor of Sustainability at the University of New England (UNE). Robyn is also the Chair of the UNE Talloires Declaration Implementation Committee. Robyn's background is in physical geography and she is a University Medallist in Geography (ANU, 1998). Robyn's current research is in human geography, particularly in legal geography and environmental law and policy. Robyn is the Convenor of the Legal Geography Study group of the IAG and a member of IAG Council. As well as her PhD and science and law degrees, Robyn also has a Master of Higher Education and pursues research in tertiary pedagogy.

Role	Member
Discipline expert	Professor Kevin Dunn is Professor of Human Geography and Urban Studies, School of Social Sciences, at The University of Western Sydney. His areas of research include the geographies of racism, immigration and settlement, Islam in Australia, and local government and multiculturalism. He is a Fellow of the New South Wales Geographical Society of which he is currently the President.
Discipline expert	Professor Nigel Tapper holds a Personal Chair in Environmental Science at Monash University. He is a past Head of the School of Geography and Environmental Science and was also Foundation Director of the Monash Sustainability Institute. Nigel has current research interests in surface-atmosphere interaction, climate change and variability and climate impacts, especially urban environments, human health and fire. Outside of Monash University he is a member of the Physics, Chemistry and Earth Sciences Research Evaluation Committee of ERA (Excellence in Research for Australia), is Chair of the National Committee for Geography, and is a member of the Implementation Committee of the Victorian Centre for Climate Change Adaptation Research and the IPCC Expert Panel on Infrastructure, Human Settlements and Spatial Planning.
Recent graduate	Mr Brad Ruting completed Honours in Geography at the University of Sydney in 2008, and was awarded First Class Honours with the University Medal. He has also completed Honours in Economics and tutored economics at the undergraduate and masters levels at the same university. He has presented geographical papers at several conferences, including those of the Institute of Australian Geographers. Brad's honours thesis explored the motivations and experiences of Estonian-Australian immigrants and their children making visits to their homeland. He is currently working as an economist for the Productivity Commission in Melbourne.
Discipline expert - jurisdiction outside Australia	Dr Lorraine Craig is Senior Academic Tutor for the Department of Earth Science and Engineering, Imperial College London. A geologist by training, and formerly Head of Research and Higher Education at the Royal Geographical Society (with IBG) in London, Lorraine was on the UK Quality Assurance Agency panels for Geography and for Earth and Environmental Sciences. Lorraine coordinated the Geography statement, including the review in 2005 before moving to her present post where she is responsible for all teaching-related matters.
Relevant employer representative	Dr Donna Ferretti is an urban and regional planner. She has worked in local and state government, as a consultant, and as an academic teaching planning programs at the University of South Australia. Committed to enhancing sustainable, socially inclusive and environmentally responsible development processes and outcomes, Donna was appointed to the Premier's Women's Directory in 2003, served on the SA Development Assessment Commission from 2003–06 and currently serves as the Presiding Member of the City of West Torrens Development Assessment Panel and Vice President of the Planning Institute of Australia SA Division.

Appendix 2: List of formal submissions received during consultation

During the two-month formal consultation process associated with the development of the Geography standards, formal written submissions to the draft Standards Statement were received from the individuals and organisations listed below:

- 1 Commander Matthew Houston, Officer-in-Charge, RAN Hydrographic School at *HMAS Penguin*
- 2 Mr Ken Granger, individual
- 3 Dr Bill Boyd, Professor of Geography, School of Environmental Science and Management, Southern Cross University
- 4 Associate Professor Louise Johnson, School of History Heritage and Society, Deakin University
- 5 Associate Professor David Dunkerley, School of Geography and Environmental Science, Monash University
- 6 *Name withheld by request*
- 7 Planning Institute of Australia
- 8 Department of Resource Management and Geography, The University of Melbourne
- 9 Geography Working Party, College of Arts, University of Western Sydney
- 10 Department of Geography and Environmental Studies, University of Tasmania
- 11 Professor George Curry, Department of Social Sciences, Curtin University
- 12 Emeritus Professor Henk Ottens, Chairperson, Royal Dutch Geographical Society
- 13 Associate Professor Neil Argent, Professor Jim Walmsley and Dr Robyn Bartel, Division of Geography and Planning, University of New England
- 14 Professor Bruce Ryan, individual
- 15 Geography Staff, School of the Environment, Flinders University
- 16 Royal Geographical Society of South Australia
- 17 Associate Professor Stuart Pearson, The University of New South Wales at the Australian Defence Force Academy
- 18 Professor Hilary Winchester, Hilary Winchester Pty Ltd
- 19 Dr Scott Sharpe, The University of New South Wales at the Australian Defence Force Academy
- 20 History Council of New South Wales
- 21 The University of Notre Dame, Australia
- 22 RMIT University
- 23 The Geographical Society of New South Wales
- 24 University of Technology, Sydney
- 25 Dr Sarah Minslow, Grants and Awards Officer, Promoting Excellence Initiative (PEI) Coordinator, Centre for Teaching and Learning, The University of Newcastle
- 26 Associate Professor Jacquelyn Cranney, ALTC National Teaching Fellow.

Appendix 3: Relationship of Australian standards to significant benchmarks

In drafting the Australian threshold learning outcome statements, reference was made to relevant national and international benchmark statements. These included the United Kingdom's Quality Assurance Agency (QAA) benchmark statements, European Tuning descriptors, Dublin descriptors and the evolving AQF⁹. Consideration was also given to Australian national curriculum documents for schools to ensure appropriate engagement and continuity between school and university expectations. The table below sets out the Australian threshold learning outcomes for Geography against benchmarks from other jurisdictions.

	Australia Geography Threshold Learning Outcomes	United Kingdom QAA – Geography (2007)	Dublin Descriptors 1st cycle degree	Australia Australian Qualifications Framework
	Upon completion of a bachelor degree with a major in Geography , graduates will be able to:	On completion of an honours degree course in Geography, students should be able to the following.	Qualifications that signal completion of the first cycle are awarded to students who:	Graduates of a bachelor degree will have/demonstrate:
Knowing	1. Demonstrate a coherent geographical understanding of trends, processes and impacts that shape Australian and other environments and/or societies at different spatial and temporal scales. 2. Demonstrate an understanding of Geography as an academic discipline, including awareness of its concepts, history and principal subfields, whilst acknowledging the contested, provisional and situated nature of geographical understanding.	• Describe and exemplify the nature of change within human environments. • Describe and exemplify the nature of change within physical environments. • Describe and exemplify the reciprocal relationships between physical and human environments. • Describe and exemplify the significance of spatial relationships as influences upon physical and human environments. • Describe and exemplify the diversity and interdependence of places at various spatial scales. • Describe and exemplify the diversity of approaches to the generation of knowledge and understanding deriving from experience of the epistemologies of the humanities, social and natural sciences. • Illustrate the contested and provisional nature of knowing and understanding.	• Have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study.	• A broad and coherent body of knowledge, with depth in the underlying principles and concepts in one or more disciplines as a basis for independent lifelong learning. • Cognitive and technical skills to demonstrate a broad understanding of knowledge with depth in some areas.

	Australia Geography Threshold Learning Outcomes	United Kingdom QAA – Geography (2007)	Dublin Descriptors 1st cycle degree	Australia Australian Qualifications Framework
Thinking	3. Apply geographical thought creatively, critically and appropriately to specific spaces, places and/or environments. 4. Recognise, evaluate and synthesise various views, arguments and sources of knowledge pertinent to solving environmental and social problems.	• Synthesise information. • Develop a reasoned argument. • Recognise and articulate weaknesses in the arguments of others. 1. Present material to support a reasoned argument. 2. Apply basic numerical skills to geographical information. 3. Interpret and use numerical and statistical information.	• Can apply their knowledge and understanding in a manner that indicates a professional¹⁰ approach to their work or vocation, and have competences¹¹ typically demonstrated through devising and sustaining arguments and solving problems within their field of study.	• Cognitive skills to critically review, analyse, consolidate and synthesise knowledge. • The application of knowledge and skills to adapt knowledge and skills in diverse contexts.
Investigating and problem-solving	5. Resolve geographical questions by ethical means, applying evidence-based knowledge and appropriate research techniques, including those associated with field work.	• Identify/formulate questions or problems. • Identify approaches to problem-solving. • Carry out routine investigations as instructed. • Illustrate the issues involved in applying research design and execution skills within the specific context of field-based research. • Illustrate the diversity of specialised techniques and approaches involved in collecting geographical information, eg instrumentation, remote sensing, cartographic surveying, social survey, observation and the use of textual and archival sources. • Illustrate the diversity of specialised techniques and approaches involved in analysing geographical information, eg special techniques for the analysis of spatial information, GIS, laboratory techniques, qualitative and quantitative techniques for the analysis of social information.	• Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues.	• Cognitive skills to exercise critical judgement and critical thinking in identifying and solving problems with intellectual independence. • The application of knowledge and skills with initiative and judgement in planning, problem-solving and decision-making in professional practice and/or scholarship.

	Australia Geography Threshold Learning Outcomes	United Kingdom QAA – Geography (2007)	Dublin Descriptors 1st cycle degree	Australia Australian Qualifications Framework
Communicating	6. Communicate geographical perspectives and knowledge effectively to specialist and non-specialist audiences using appropriately selected written, oral and visual means.	• Illustrate the diversity of specialised techniques and approaches involved in presenting geographical knowledge and information, eg GIS, cartography and different textual strategies. • Communicate geographical ideas, principles and theories by written, oral and visual means. • Use communications and ICT to select, analyse, present and communicate geographical information.	• Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.	• Communication skills to present a clear, coherent and independent exposition of knowledge and ideas.
Self-directing and collaborating	7. Contribute effectively as a member or leader of diverse teams working in geographical or multidisciplinary contexts. 8. Reflect on and direct their intellectual and professional development as geographers.	• Undertake independent/ self-directed study/ learning (including time management) within a supportive framework. • Perform assigned tasks within a group setting and take part in group discussions.	• Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	• Graduates of a bachelor degree will demonstrate the application of knowledge and skills with responsibility and accountability for own learning and professional practice and in collaboration with others within broad parameters.

Note: As yet, there are no Tuning statements for Geography. However, development work is being undertaken. See, for example, Donert. K. 2007, *Aspects of the State of Geography in European higher education*. TUNING Geography: A report of findings and outcomes, HERODOT Network, Liverpool. Available: <www.herodot.net/state/TUNING-Geography-v1.pdf>

9. Over the course of the LTAS Project three different consultation versions of the AQF were circulated nationally: September 2009, July 2010 and September 2010. At the time this Standards Statement was being finalised and endorsed, the September 2010 version referred to was pending MCTEE approval (granted 19 November 2010).
10. The word 'professional' is used in the Dublin descriptors "in its broadest sense, relating to those attributes relevant to undertaking work or a vocation and that involves the application of some aspects of advanced learning. It is not used with regard to those specific requirements relating to regulated professions". (Joint Quality Initiative informal group 2004, 'Shared "Dublin" descriptors for Short Cycle, First Cycle, Second Cycle and Third Cycle Awards', 18 October 2004. Available: <www.uni-due.de/imperia/md/content/bologna/dublin_descriptors.pdf>)
11. The word 'competence' is used in the Dublin descriptors in "its broadest sense, allowing for gradation of abilities or skills. It is not used in the narrower sense identified solely on the basis of a 'yes/no' assessment". (Joint Quality Initiative informal group 2004, 'Shared "Dublin" descriptors for Short Cycle, First Cycle, Second Cycle and Third Cycle Awards', 18 October 2004. Available: <www.uni-due.de/imperia/md/content/bologna/dublin_descriptors.pdf>)

Appendix 4: Abbreviations

AHA	Australian Historical Association
ALTC	Australian Learning and Teaching Council
AQF	Australian Qualifications Framework
ASSH	Arts, Social Sciences and Humanities
DASSH	Australasian Council of Deans of Arts, Social Sciences and Humanities
DEEWR	Department of Employment, Education and Workplace Relations
DRG	Discipline Reference Group
DS	Discipline Scholar
ERA	Excellence in Research for Australia
GIS	Geographical Information Systems
IAG	Institute of Australian Geographers
IBG	Institute of British Geographers
LTAS	Learning and Teaching Academic Standards
MCTEE	Ministerial Council for Tertiary Education and Employment
TEQSA	Tertiary Education Quality and Standards Agency (Australia)
TLO	Threshold Learning Outcome
QAA	Quality Assurance Agency (UK)

Support for this project has been provided by the Australian Learning and Teaching Council Ltd., an initiative of the Australian Government. The views expressed in this report do not necessarily reflect the views of the Australian Learning and Teaching Council or the Australian Government.

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ABN 30 109 826 628

2011

ISBN 978-1-921856-32-7



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