



LTAS@UTAS

*Learning and Teaching Academic Standards at
University of Tasmania*

*A Guide to Course Learning Outcomes
August 2013*

Figure Credits

Figures 1, 3, 4, 14

Courtesy of Faculty of Science, Engineering and Technology, UTAS

Fig 2

The pdf of this document can be found @ <http://www.aqf.edu.au>

Fig 5

The pdfs of these documents can be found @

<http://disciplinestandards.pbworks.com/w/page/52657697/FrontPage>

Fig 6

The pdfs can be found @ <http://www.qaa.ac.uk/Pages/default.aspx>

Figures 7, 10

Courtesy of JH Holmes

Fig 8

The pdfs can be found at <http://www.unideusto.org/tuningeu/>

Fig 9

Sourced from M Cordiner [2007] in Cordiner, Moira, Stenzel, Deborah J., & Hafner, Louise M. (2007) Levelling expectations across different years in an undergraduate degree to support work-related learning : evidence for a multi-pronged approach. In ATNEAC2007 Book of Proceedings, Department of Teaching and Learning Support Services, QUT, Brisbane, Qld. (QUT Kelvin Grove), pp. 17-25. Reproduced in UTAS Guidelines for Good Assessment Practice [Revised edition, 2011]

Fig 11

The diagram can be found @ <http://www.utas.edu.au/education/learning-and-teaching/resources/unit-outline-information-essential-to-all-units>

Fig.12

Courtesy Dr Alison Canty and Dr Janine Tarr, Faculty of Health Science, UTAS

Fig. 13

Courtesy Dr Emma Pharo and Professor Jamie Kirkpatrick, Faculty of Science, Engineering and Technology, UTAS.

Fig 15

Courtesy SM Jones et al.

Fig 16

Courtesy Dean Stevenson, Conservatorium of Music, Faculty of Arts, UTAS

Fig 17

Courtesy SM Jones

LTAS@UTAS

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Foreword

I am delighted to see this Guide in print. It shows the various national and international contexts in which the work on learning outcomes at the University of Tasmania must be placed, as well as providing very useful and accessible suggestions on ways to approach the whole issue of course level learning outcomes. The Guide represents an important milestone for the LTAS@UTAS project which has been a very valuable and consultative exercise across the institution and which has raised our profile nationally.

You can read for yourselves how the national agenda, through the associated inputs of the original LTAS project, the Higher Education Standards Panel, TESQA and the AQF, is reinforcing the drive for course level outcomes.

I want to range a little broader into the area of our responsibilities as academics and professional staff engaged in the processes of facilitating learning. Firstly, as a University we have a commitment to our students to make clear what they are studying and what skills and knowledge they can expect to be equipped with throughout and at the end of their programs. This will help them in the search for careers, competing as they will have to do in an increasingly fierce and globalised environment. It gives them a discourse of achievement beyond the name of their degree.

Course level learning outcomes also speak to the processes and philosophy of teaching because they demonstrate the inter-relationship of units and the place of core as well as specialised offerings. They help us build links to our colleagues, breaking down barriers we sometimes accept in teaching but rarely in research. In other words, teaching is not a “secret garden” but intrinsically a shared and social exercise. Teaching can be opened up to peer input, review and observation. The curriculum can be refreshed through a collective and strategic focus, and the opportunities for cross-disciplinary programs can be taken within a framework of intended outcomes addressing learning needs. Course level learning outcomes simply focus a reflection on what we teach and how we teach it.

The University of Tasmania has achieved a very high ranking in terms of teaching performance in the last two years and this Guide will help us maintain that. I commend it to you.

Professor David Sadler

Deputy-Vice Chancellor (Students and Education), University of Tasmania

University of Tasmania, August, 2013

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Part 1: Introduction

1.1 Aim

The aim of the LTAS@UTAS project is to establish a whole-of-University approach to course-level learning outcomes across all faculties and programs. This guide provides students, teaching and administrative staff, professional bodies, and the public with an overview of the University's academic standards and learning outcomes strategy. It is intended that this guide should be read in conjunction with the University's Guidelines for Good Assessment Practice [Revised edition, 2011].

1.2 What is a learning outcome?

The UNESCO document *Quality Assurance and Accreditation* [2007] defines a student learning outcome as a 'statement of what a learner is expected to know, understand, and be able to demonstrate after completion of a process of learning'. The glossary in that document also states that a learning outcome includes 'the specific intellectual and practical skills gained and demonstrated by the successful completion of a unit, course, or program.'¹

1.

Vlăsceanu, L.,
Grünberg, L., and
Pârlea, D. *Quality
Assurance and
Accreditation: A
Glossary of Basic
Terms and
Definitions*.
Bucharest: UNESCO,
2007 [64]

In this definition, the substance of which is mirrored to a great extent in most of the literature on learning outcomes including the Australian Qualifications Framework [AQF], the emphasis is on a verifiable achievement that can be demonstrated at the completion of a program of study, whether it be at the end of an individual unit, or a discipline major, or at the point of graduation from a degree.

The UNESCO glossary goes on to say that 'learning outcomes, together with assessment criteria, specify the minimum requirements for the award of credit, while grading is based on attainment above or below the minimum requirements for the award of credit.'

Once again, the substance of this statement is captured in almost all definitions of a learning outcome, the achievement of a threshold standard, and the measurement of capability.

1.3 Rationale

University of Tasmania recognises the importance of providing clear and authoritative statements of what its graduates are expected to know, understand and to demonstrate when they complete a degree at this institution.

The University must be able to guarantee that all graduates will have achieved a specified range of learning outcomes in their chosen degree program.

In order for the University to achieve this guarantee, it follows that the learning outcomes for graduates of each degree have to be identified, and that clear links are



Fig.1

established between the learning outcomes for the individual components, or units of a degree, and the degree as a whole.

1.4 UTAS Strategic Plan for Learning and Teaching 2012-2014

In the University's *Strategic Plan for Learning and Teaching* there is a strong emphasis upon developing clear and consistent learning outcomes for all of the courses we teach.

Objective 1.4 in the Strategic Plan, for instance, identifies the elements required to assure and enhance quality in student learning. The aim is to provide an educational environment in which the University's degree programs are reviewed and revised on a regular basis; where staff and students can expect the learning outcomes of units to be mapped to well-articulated course learning outcomes; where we can demonstrate that all of our courses comply with the requirements of the Australian Qualifications framework [see below]; and in an environment where the learning outcomes are clearly and transparently assessed according to the University's Assessment Policy and Procedures.

The University's Learning and Teaching reporting processes rely heavily upon a number of mechanisms in which learning outcomes play an extremely important role. Mention has already been made, for instance, of the Criterion Referenced Assessment policy

Objective 1.4:

Processes for assuring and enhancing quality in student learning at UTAS will ensure that student learning is assured by a rigorous application of a learning and teaching approach that maps for each of its programs and courses the learning outcomes to be achieved, how those outcomes are to be assessed and the contribution of those to graduate attributes, skills and dispositions. All of our units will be assessed using the Criterion Referenced Assessment (CRA) protocols. In particular, the provisions of the Academic Standards Framework will be rigorously applied to all of our programs and courses. Assurance of learning and assessment will be delivered by the use and evaluation of processes that seek and evaluate student feedback by the use of SETL, CEQ and the development of a range of alternative feedback mechanisms over the life of this plan. Programs, courses and units will be continually improved using this evaluation data.

[University of Tasmania Strategic Plan for Learning and Teaching, 2012-2014 \[2011\]](#)

[introduced in 2007], in which the establishment and definition of unit-specific learning outcomes underpin the assessment process. The Unit and Course Evaluation Report Process, which has become University Policy in 2013, is designed to ensure that all of our units and courses are aligned with the Australian Qualifications Framework and with the Learning Outcomes and Course Design Standards. Furthermore, a very significant amount of the University's data on students' views of their learning and of the teaching they receive is captured in the University's online student survey of courses and units, eValue. A focus on the learning outcomes of units and courses underpins the entire survey and provides the University, the staff and students with valuable information on the quality of the University's programs.

1.5 What are the benefits of this learning outcomes approach?

Clear and authoritative graduate learning outcome statements provide students and employers with an excellent overview of the standard that has been achieved as a result of the successful completion of a particular degree.

Well-expressed learning outcomes, both at the unit and the course or degree level, assist students to understand how and what they learn. Course level graduate learning outcomes provide the bigger picture context for a student's studies, while unit level learning outcomes, like pieces in a jig-saw puzzle, contribute to the achievement of those graduate outcomes.

The development of a learning outcome framework – one in which the individual components are mapped to the graduate outcomes of a course – stimulates curriculum review and has the capacity to renew teaching through reflection and purposeful interrogation of the curriculum.

As noted, a learning outcomes framework is also extremely important for quality assurance purposes and, when linked to a comprehensive mapping and benchmarking process, provides us with overt evidence that our courses meet not only national but also international standards.

1.6 The National Context

From January 2015 the University has a statutory obligation to provide evidence that all of its courses are compliant with the Australian Qualifications Framework [AQF]. All higher education courses in Australia are approved within this framework. The booklet outlining the framework can be found on the AQF Website (<http://www.aqf.edu.au/>).

Furthermore, the University must be able to demonstrate to the Federal Government's regulatory



Australian
Qualifications
Framework
Second Edition January 2013



Fig.2

body, the Tertiary Education Quality and Standards Agency [TEQSA], that the quality of all of the courses it offers can be assured. This involves a complex process of regulation and evidence-based reporting on the part of TEQSA and the University respectively.

TEQSA is the auditing authority responsible for ensuring that the stated learning outcomes for a given course meet the generic learning outcomes for the relevant AQF level and qualification type descriptor. TEQSA assesses whether 'the design of all the components of the course will support achievement of the learning outcomes'.²

Once in place, the creation of a whole-of-University learning outcomes framework at UTAS will provide the University with sophisticated evidence that its statutory obligations have been met. At the same time, it will facilitate the international benchmarking of our degree programs, ensuring that our graduates are internationally competitive. Such a framework also facilitates the process of credit transfer and exchange for UTAS students when they apply to study elsewhere in Australia and overseas.

For academic staff there is the added benefit that the learning outcomes framework gives them an excellent overview of how and what they teach contribute to the achievement of successful graduate learning outcomes.

1.7 National Standards in Learning and Teaching

The move to establish a national framework for the quality assurance of higher education, including learning and research received a significant boost with the publication of the Review of Australian Higher Education [December, 2008], chaired by Emeritus Professor Denise Bradley. The Review has brought about widespread changes in the higher education sector since then, including a fundamental change to the



Fig.3

regulatory environment for universities and other higher education providers. In January 2012, the Commonwealth Government replaced the Australian Quality Audit Agency [AUQA], which had been the Government's primary means of monitoring quality of higher education in Australia during the first decade of this century.

As noted above, in AUQA's place, the Tertiary Education Quality and Standards Agency [TEQSA] has been formed. A comprehensive overview of TEQSA's activities can be found at <http://www.teqsa.gov.au/>.

1.8 Tertiary Quality and Standards Agency [TEQSA]

The following two paragraphs explain TEQSA's principal functions and role.

TEQSA registers and assesses the performance of higher education providers against the Higher Education Standards Framework. The Standards Framework comprises five domains: Provider Standards, Qualification Standards, Teaching and Learning Standards, Information Standards and Research Standards. The Provider Standards and Qualifications Standards are collectively the Threshold Standards, which all providers must meet in order to enter and remain within Australia's higher education system.

TEQSA will undertake both compliance assessments and quality assessments. Compliance assessments involve assessing a particular provider's compliance against the Threshold Standards for registration as a higher education provider. TEQSA may conduct quality assessments across the whole higher education sector, a sample of providers, or a single provider. [<http://www.teqsa.gov.au/>]

1.9 The Higher Education Standards Panel [HESP]

The Standards Framework is being developed by a separate but linked organisation, the Higher Education Standards Panel [HESP], which operates under a separate Act of Parliament and which provides independent advice to the Commonwealth Minister(s) responsible for tertiary education and research. [<http://www.hestandards.gov.au/>]. At the time of writing, the HESP is in the process of developing Provider Standards, Qualification Standards, Teaching and Learning Standards, Information Standards and Research Standards.

TEQSA will assess the quality of the University of Tasmania's learning and teaching against the Higher Education Standards Panel's Learning Outcomes (Coursework) standard. This is the threshold standard that every higher education provider must meet for every degree program it offers.

1.10 The HESP Learning Outcomes (Coursework) Standard

LTAS@UTAS has to take account of the Teaching and Learning Standard, the draft

guidelines of which are as follows:

Learning Outcomes (Coursework)

1. The learning outcomes to be achieved on completion of a course of study are specified for each course of study.
2. The learning outcomes for each course of study are consistent with the qualification awarded, are comparable with those for courses of study that lead to the same or a similar qualification in Australia and are informed by international comparators.
3. The learning outcomes for each course of study are informed by:
 - i. the mastery of specific disciplinary and/or interdisciplinary knowledge and skills that characterise the field of study
 - ii. the generic skills and attributes required of graduates
 - iii. the application of generic skills and attributes in the context of the field of study including the communication skills required, and
 - iv. the requirements of employment related to the field of study.
4. The relationship between the overall learning outcomes for each course of study and the learning outcomes for units that contribute to the course of study is demonstrable.
5. The specified learning outcomes for each course of study are available to the staff and students who are involved and are publicly accessible in a current version.
6. The assessment of student learning, whether at unit level, course level, or in combination, encompasses all specified learning outcomes for each course of study.
7. Learning outcomes for each course of study and the methods for assessment of those outcomes are informed by periodic reviews (at least every 5 years), which take account of external reference points that are relevant to the course of study.
8. Methods of assessment are consistent with the types of learning outcomes being assessed and are capable of validly and reliably confirming that specified learning outcomes are achieved.
9. The grades awarded to students reflect the level of their attainment.
10. The grading of students' achievement of learning outcomes for selected units within courses of study is referenced periodically (at least every 5 years) against the grading of students' achievement in comparable units or courses in other Australian institutions.

Later in the booklet, UTAS exemplars are given in order to demonstrate how the threshold standards can be achieved and demonstrated but, in summary, the Higher Education Teaching & Learning Draft Standards require the institution to undertake the following:

- To provide publicly available course learning outcomes [CLOs] for every degree and diploma it offers
- To provide evidence that the CLOs are assessed
- To demonstrate and provide evidence that the Unit Learning Outcomes are mapped to the CLOs
- To document how the CLOs and ULOs are reviewed on a regular basis
- To demonstrate how the CLOs are benchmarked against national and international comparators

1.11 Who determines the standards for the courses we offer?

The HESP Teaching and Learning Standard identifies three kinds of reference points that will inform our CLOs:

1. Australian Qualifications Framework (January 2013).
2. Learning outcomes statements developed for the field of study by Office for Learning and Teaching discipline communities or other disciplinary or professional bodies.
3. The requirements for professional accreditation of the course of study and registration of graduates where applicable.

It is still important to stress, however, that as long as our courses are compliant with the Australian Qualifications Framework, we have academic responsibility for determining the curriculum and the learning outcomes for each of the distinctive programs we offer.

1.12 The Australian Qualifications Framework, Discipline-Specific Course Learning Outcomes and National Professional Accreditation Requirements

The Australian Qualifications Framework provides a broad statement of what a typical course must achieve in terms of generic skills, knowledge and the application of knowledge and skills. This gives us a framework for understanding what is required at the various levels of higher education and we can expect the statutory review and reaccreditation processes to require us to provide evidence that we are meeting these goals.

Importantly, moreover, the HESP has identified discipline-specific CLOs, where they already exist or are being created, as key reference points to be used in the development of a learning outcome framework. These are CLOs that have been developed and endorsed by the peak academic and/or professional bodies for the



Fig.4

particular disciplines.

And, equally importantly, the degree programs must be able to comply with the demands of professional accreditation bodies that may require further discipline specific skills, knowledge and abilities to be demonstrated and assessed in a given program. Where graduates must seek registration to practise in a particular profession, the registration expectations must also be taken into account.

1.13 The Australian Learning and Teaching Council Academic Standards Project [LTAS]

In 2010-2011, the Australian Learning and Teaching Council developed the Learning and Teaching Academic Standards project [LTAS], which provided a broad range of disciplines with the opportunity to develop threshold Course Level Outcomes at a number of levels in the AQF awards schedule.³ Discipline Scholars were appointed to coordinate this process and, as a result, the following broad discipline fields were able to develop CLOs during this period:

Architecture	Creative and
Arts, Social Sciences	Performing Arts
and Humanities	Education
Building and	Engineering and ICT
Construction	Health
Business,	Law
Management and	Science
Economics	

Subsequently a number of other disciplines have developed CLOs or are in the process of creating discipline specific learning outcome statements. These are listed on the following website:

<http://disciplinestandards.pbworks.com/w/page/52657697/FrontPage>

3 The term Threshold Learning Outcome is an important underpinning concept in this document. When we speak about a threshold learning outcome we imply that a threshold (minimum acceptable) standard of achievement must be obtained in order for the student to pass. It follows that the University must be able to provide evidence that, upon graduation, a student will have met or exceeded that minimum requirement. In the ALTC Learning and Teaching Academic Standards project, the discipline scholars developed a relatively small number of TLOs for each discipline – the minimum set of requirements – although it was always expected that most graduates would meet learning outcome objectives at a significantly higher level than the stated minimum. That would be achieved in a number of ways including setting further course learning outcome objectives and through such mechanisms as the criterion reference assessment process, which provides an excellent method by which to define, calibrate and assess achievement in the various units offered within a program.



Fig.5

The Learning and Teaching Academic Standards Project booklets contain the Learning Outcomes established by the various disciplines and also include substantial further documentation on their context.

1.14 The International Context

The work that has been achieved in establishing a learning outcomes framework for higher education in Australia has been driven not only because of government incentives and quality assurance requirements but also because of a widespread desire on the part of those working in the sector to maintain the diversity and excellence of learning and teaching in Universities, and at the same time to ensure that the sector can properly demonstrate that all graduating students have met common nationally agreed-upon standards.

There has also been extensive work carried out internationally, particularly in Europe and the UK, over the past two decades to establish a learning outcomes framework for higher education. In the UK, the Quality Assurance Agency has worked with the various discipline bodies to establish a comprehensive suite of subject-based benchmark statements that include reference to the threshold learning outcomes required in a course of study. It is worth noting here that this work has been discipline-driven. It has been a guiding principle of the Higher Education sector in the UK that, despite the need for national regulation, Universities must be given the freedom to maintain a wide diversity of curriculum, learning approaches, and degree offerings. Subjects that now have comprehensive guides to standards are listed below and are also available through the UK Quality Agency website.⁴

4.



Accounting (2007); Agriculture, horticulture, forestry, food and consumer sciences (2009); Anthropology (2007); Archaeology (2007); Architectural technology (2007); Architecture (2010); Area studies (2008); Art and design (2008); Biomedical science (2007); Biosciences (2007); Construction, property and surveying (2008); Chemistry (2007); Classics and ancient history (including Byzantine Studies and Modern Greek) (2007); Communication, media, film and cultural studies (2008); Computing (2007); Counselling and psychotherapy (2013); Criminology (2007); Dance, drama and performance (2007); Dentistry (2002); Early childhood studies (2007); Earth sciences, environmental sciences and environmental studies (2007); Economics (2007); Education studies (2007); Engineering (2010); English (2007); Finance (2007); Forensic science (2012); General business and management (2007); Geography (2007); Health studies (2008); History (2007); History of art, architecture and design (2008); Hospitality, leisure, sport and tourism (2008); Housing studies (2007); Landscape architecture (2007); Languages and related studies (2007); Law (2007); Librarianship and information management (2007); Linguistics (2007); Materials (2008); Mathematics, statistics and operational research (2007); Annex to Mathematics, statistics and operational research to cover integrated master's degrees (2009); Medicine (2002); Music (2008); Optometry (2007); Osteopathy (2007); Philosophy (2007); Physics, astronomy and astrophysics (2008); Politics and international relations (2007); Psychology (2010); Social policy and administration (2007); Social work (2008); Sociology (2007); Theology and religious studies (2007); Town and country planning (2008); Veterinary science (2002); Welsh (2008) / Cymraeg (2008); Youth and community work (2009)

Fig.6 Quality Assurance Agency, UK
<http://www.qaa.ac.uk/Pages/default.aspx>

A similar process has occurred in Europe where, since 1999, there has been a concerted effort to ensure comparability in the standards and quality of higher education qualifications. The Bologna Declaration [1999] was a joint ministerial declaration involving 29 European countries that formed the initial European Higher Education Area, an area that has subsequently been expanded. [<http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf>]

The declaration had a specific set of objectives and one 'clearly defined common goal', which was: 'to create a European space for higher education in order to enhance the employability and mobility of citizens and to increase the international competitiveness of European higher education'. The specified objectives were as follows:

- the adoption of a common framework of readable and comparable degrees, "also through the implementation of the Diploma Supplement";
- the introduction of undergraduate and postgraduate levels in all countries, with first degrees no shorter than 3 years and relevant to the labour market;
- ECTS-compatible credit systems also covering lifelong learning activities;
- a European dimension in quality assurance, with comparable criteria and methods;
- the elimination of remaining obstacles to the free mobility of students (as well as trainees and graduates and teachers (as well as researchers and higher education administrators).

Since the initial meeting in Bologna there have been further developments including the creation and formalising of a three-cycle framework of qualifications where Bachelor degrees are normally of three years' duration; Masters degrees are two years; and Doctoral degrees are three years. [Bergen, 2005]



Fig.7

In order to assist the various countries in this process, since 2000, the European Commission has funded a number of discipline-driven 'tuning' projects through Tuning Educational Structures in Europe. [<http://www.unideusto.org/tuningeu/home.html>] These projects have been aimed at providing Universities with a discipline-specific framework designed to assist them to find points of reference, convergence and common understanding across the sector.

Broadly speaking, there have been two major drivers influencing the European push to develop a learning-outcomes focus in higher education. The first has been the European community's desire to obtain a common agreement with regard to standards and the quality of higher education. The second, in keeping with the European charter, has been the need to enable easy transfer and exchange within and between degree programs for undergraduate and postgraduate students across Europe.⁵

Many discipline groupings in European higher education now have published discipline-specific course learning outcomes that provide points of reference for the sector.

5.
European Tuning
Project
[http://
www.unideusto.or
g/tuningeu/](http://www.unideusto.org/tuningeu/)

[Learning Out-
comes/ Compe-
tences for Under-
graduate Medical
Education in
Europe](#)

[Reference Points for
the Design and
Delivery of Degree
Programmes in
Music](#)



Fig.8

Furthermore, a number of these disciplines have national bodies that provide expert advice, both to individual institutions that require assistance in meeting the national quality assurance requirements, and to the agencies responsible for maintaining quality and standards in the higher education sector.

The European Tuning project has subsequently been expanded globally with similar projects now being developed in Latin America, the United States, Russia and Africa.

1.15 Summary observations

Since the completion of the Australian Academic Standards project in 2011, which involved widespread endorsement from the disciplines and from professional bodies, there has been considerable further work carried out in order to enable the implementation of nationally endorsed discipline-specific Graduate Learning Outcomes in the Higher Education sector. The Federal Government's Office of Learning and Teaching [OLT] has supported 16 discipline-based networks that continue to extend the project that was carried out by the ALTC. This work is further supported by a range of recent research publications and reports in Australia that have focused on learning and teaching standards; a number of the Discipline Scholars have also been able to maintain their activities through networks that were created in 2010-11 or have been created more recently.

The publication of the Higher Education Standards Panel draft Teaching and Learning Standards has been a very significant document insofar as it has highlighted the importance that the disciplines will have in determining the learning and teaching standards within individual higher education institutions. It was always the intention of the ALTC project to ensure that Universities would be free to maintain the diversity and distinctiveness of their courses and curriculum, and HESP indicates that this autonomy will continue to be supported.

Nevertheless, in what is now a changed regulatory environment, it is important to stress that this autonomy does require that Universities are able to provide evidence that they are meeting agreed-upon standards and this is the reason for the University of Tasmania's decision to establish a transparent whole-of-university framework for its course and unit learning outcomes. This is reflected in the guiding principles of the University's Strategic Plan for Learning and Teaching, 2012-2014 :

Learning and teaching should constantly strive to enhance quality of graduate outcomes and the achievements of academic standards [Principle 9 in the Strategic Plan]

Furthermore, the processes for assuring and enhancing quality in student learning are captured in Objective 1.4 of the first goal of the Plan which states that student learning is:

[A]ssured by a rigorous application of a learning and teaching approach that maps for each of its programs and courses the learning outcomes to be achieved, how these outcomes are to be assessed, and the contribution of those to graduate attributes, skills and dispositions. All of our units will be assessed using the Criterion Reference Assessment (CRA) protocols. In particular, the provisions of the Academic Standards Framework will be rigorously applied to all of our programs and courses.

The next section offers guidelines to assist UTAS to achieve this.

Part 2: Implementation

2.1 Learning outcomes: an explanation for students

Note to staff: this section is directed at students. It is suitable for insertion into course and unit documentation, with or without modification, or as a guide for staff who will be speaking with students about expectations and learning outcomes for their course/major/unit.

2.1.1 What are course learning outcomes (CLOs)?

When deciding what to study at university, you considered what you want to do after completing your course of study.

The **learning outcomes** for your course describe what a graduate of that course *knows, understands and is able to do*. Course learning outcomes (CLOs) provide you with a clear set of targets or final goals to achieve during your program of study. They are an excellent guide to how that course will prepare you for further study and for relevant professional work.

At the broadest level, graduates of any university degree at a particular level (e.g. as the bachelor level) will have met a specific set of generic learning outcomes. These are specified in the Australian Qualifications Framework (AQF).

For example: "Graduates of a Bachelor Degree will have 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".

The AQF provides certainty that your degree is equivalent to a comparable degree at other national or international institutions. If you are interested in learning about this in more detail, you can find the AQF descriptors at: <http://www.aqf.edu.au/>

The learning outcomes for your course therefore reflect the AQF descriptor for all degrees at that level. However *they are framed in the context of the discipline(s) you are studying*. They encompass the characteristic ways in which professionals in that field think and work.

For example, graduates in science will understand the methods of science and be able to explain why current scientific knowledge is both contestable and testable by further inquiry. In contrast, graduates in law will be able to apply legal reasoning and research to generate appropriate responses to legal issues.

In addition, professional degrees (e.g. architecture or medicine) require *accreditation* by the relevant professional association or society. In such cases, the CLOs will also reflect the accreditation requirements for professional practice.

2.1.2 Where can I find the learning outcomes for my course?

You will find the learning outcomes for your course in the course brochure and the formal web-based course documentation. They will be discussed at induction and/or orientation events. If you have any questions about the learning outcomes for your course, you can approach your degree coordinator or other teaching staff.

2.1.3 How will I show evidence that I have met the learning outcomes for my course?

The assessment tasks (or assignments) that you undertake during your studies are designed by your lecturers to allow you to demonstrate your learning. You will demonstrate achievement of your CLOs via the assessment tasks you do within each unit you study. Each Unit Outline contains details of these assessment tasks, and shows how they map to both the unit LOs, and to the CLOs.

It is very unlikely that any single unit you study will address **all** the CLOs for your course. This is because your degree is made up of many individual units, each of which contributes a part of your overall learning experience.

It is important to appreciate that CLOs describe the capabilities of graduates, and these capabilities will be developed incrementally as you progress through your course. Thus introductory or intermediate level units will build towards achievement of one or more CLOs. You will have achieved (at least at pass level) the full set of CLOs when you meet the requirements of graduation.

Being aware of your CLOs, and thinking about which assessment task(s) provides evidence of your achievement of a particular learning outcome, will be helpful when you begin to write applications for jobs or scholarships and have to address selection criteria.

The CLOs for your degree program therefore represent an important set of goals that you will work towards during your studies, and will have achieved at graduation.

2.1.4 Generic graduate attributes

Course learning outcomes are the specific learning goals defined for your particular course. In contrast, [generic graduate attributes](#) are qualities that characterize all graduates irrespective of the courses they complete.

The University of Tasmania has identified a set of five generic graduate attributes:

- Knowledge
- Communication skills
- Problem-solving skills
- Global perspective
- Social responsibility.

You will notice some similarities between these and your CLOs. This is because the generic graduate attributes describe the core qualities that you will have acquired as a graduate regardless of the specific discipline or professional course that you have studied. The generic graduate attributes describe how you are prepared for employment or further study.

2.2 Learning outcomes: an explanation for teaching academics

The UTAS Assessment Policy clearly sets out the broad framework for assessment practice at this university. This policy stresses that “Assessment is an integral part of the learning and teaching cycle”, and requires “a clear alignment between stated learning outcomes, the learning experiences provided for students, and the assessment tasks”.

As a teaching academic, you will be familiar with the concept of specific unit-level learning outcomes (LOs) that you expect your students to achieve. Through the [Criterion Referenced Assessment \(CRA\)](#) process, you will also be familiar with defining and differentiating levels of achievement (i.e. pass; credit, etc), and devising assessment tasks that will allow your students to demonstrate their achievement of these LOs. Your rubrics indicate the unit LOs associated with each piece of assessment, and articulate the standards of achievement for your students.

It may be helpful to refresh your understanding of *constructive alignment*. The term ‘constructive alignment’, as articulated by John Biggs,⁶ means, firstly, that the student constructs their own learning through appropriate learning activities. Secondly, from the teacher’s perspective, the intended learning outcomes define the assessment task(s), not the other way around: the learning activities and assessment tasks are aligned with the learning objectives.

In this model, there are therefore three major steps in curriculum design:

- Defining the learning outcomes (LOs);
- Designing assessment tasks based on the learning outcomes;
- Planning appropriate learning activities that will help students achieve the learning outcomes.

This outcomes-focused approach emphasises that learning is about what the student does, not about what the teacher does. (See also pp. 12-14 in [Guidelines for Good Assessment Practice](#).)

6. <http://www.johnbiggs.com.au/academic/constructive-alignment/>
See also: Biggs, J. and Tang, C. (2011). *Teaching for Quality Learning at University*, Buckingham: Open University Press/McGraw Hill, 4th Ed. 2011.

7. Writing learning outcomes is itself an important skill. Good learning outcomes are:

See: Baume, D. (2009). *Writing and using good learning outcomes*, Leeds Metropolitan University. Available at: http://www.leedsmet.ac.uk/staff/files/Learning_Outcomes.p

- **active:** describe, using appropriate verbs, what the student will do
- **attractive:** students desire to achieve them
- **comprehensible:** students understand what they mean
- **appropriate:** to the student's goals and career plan – i.e the course of study
- **attainable;** most students should achieve them with appropriate effort
- **assessable:** the task allows the student to demonstrate their learning
- **visible:** they are set out clearly in the unit outline and course guide.⁷

8. At one scale, such learning outcomes are discrete to a particular unit: they directly address the content of the unit taught. However, at the broader scale, every unit contributes to a major or course program of study.⁸

For the more generic degrees such as the Bachelor of Science or Bachelor of Arts, majors will be designed such that a student will achieve the course learning outcomes by passing all units in the major.

The CLOs will guide the design of individual units. You therefore need to be aware of the learning outcomes for the major or degree to which your unit contributes (as one 'piece of the jigsaw'), and understand how your unit LOs map to these CLOs. In team-taught units, this point should be discussed amongst the whole teaching team, especially when different teaching staff take responsibility for different aspects of assessment

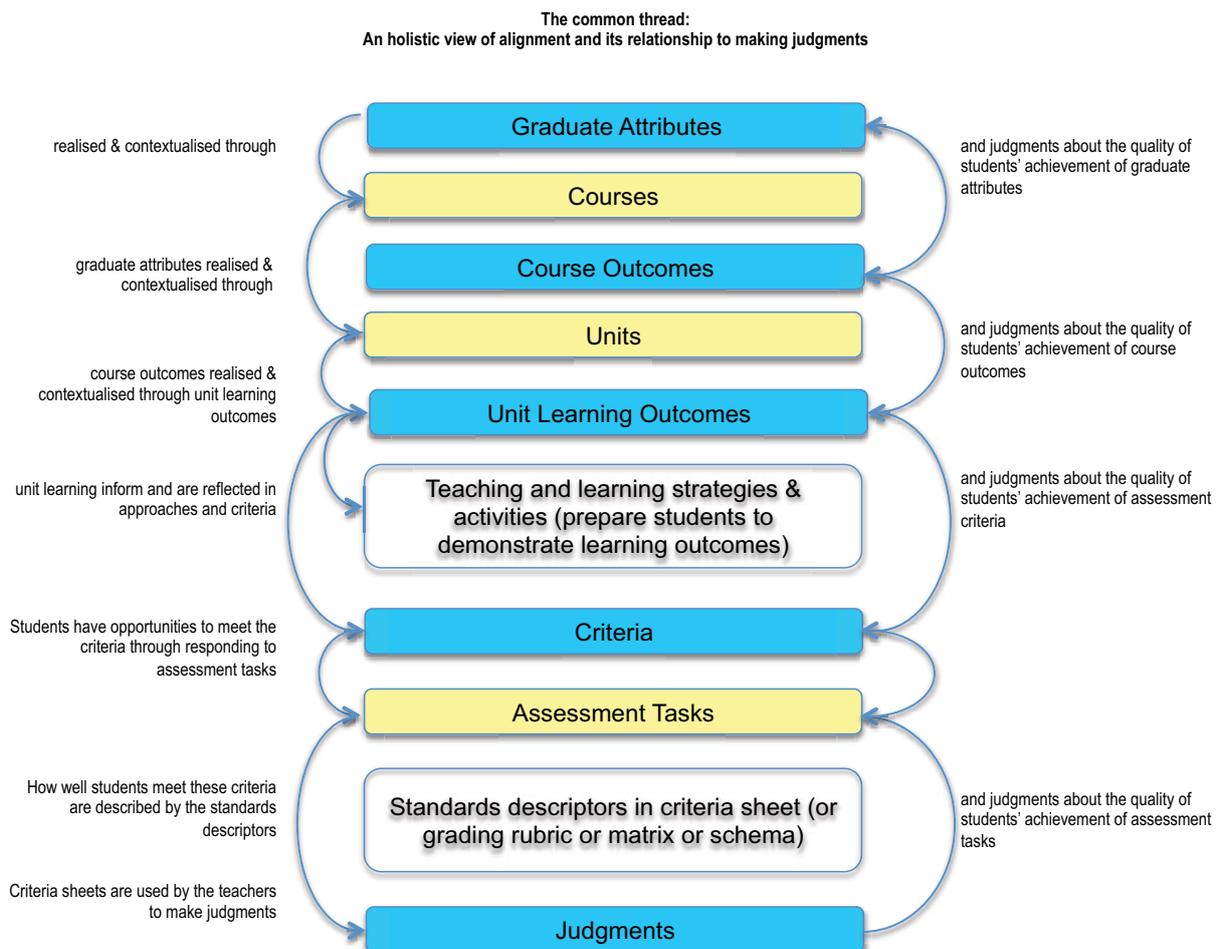


Fig.9 Adapted from a diagram on the QUT CRA website (staff only) developed by Cordiner M. (2007) in Cordiner, M., Stenzel, D., & Hafner, L. Levelling expectations across different year levels in an undergraduate degree to support work-related learning. Evidence of a multi-pronged approach (p.19). *ATN Evaluation and Assessment conference proceedings*, November, Brisbane.

Elective units warrant some discussion here. By definition, neither degree electives nor student electives are mandatory for all students completing a particular course: they represent 'optional pieces of the course jigsaw'. Degree and student electives serve a range of purposes. They provide choice and flexibility, and allow students to pursue interests within and beyond their main subjects, as well as to specialise. As such, they will have distinct learning outcomes as follows:

Successful completion of electives (degree or student electives) will ensure students have an appreciation of areas of specialisation in their chosen field(s) and/or of current academic debates in an area of choice, facilitating students' skills of enquiry, independent learning and problem-solving.

In addition, units will build towards students' holistic achievement of the UTAS generic [graduate attributes](#). In the new UTAS curriculum model, the *breadth units* will play a major role here: the breadth units will be designed specifically to support the development of the UTAS graduate attributes and to enrich the students' educational experience.

It is important that you talk overtly to your students about the learning outcomes associated with the assessment tasks you set them in terms that they understand. If they are aware of the rationale for the assignment, then they will better engage in the learning process. More broadly, students who understand standards and are encouraged to see these as study goals are likely to have better learning outcomes.

"Clearly and succinctly expressed learning outcomes provide students with an understanding of what is expected of them, and thereby encourage and empower students to take responsibility for the management of their own learning." (UTAS Strategic Plan for Learning and Teaching 2012-2014: p.18).

Understanding and articulating how your particular unit relates to other components of the course will also help your students to integrate their learning across their entire course. It also helps your students understand their cumulative development towards achieving a CLO across their introductory, intermediate and advanced level units.

2.3 The roles and responsibilities of the unit coordinator under LTAS@UTAS

Unit coordinators have a responsibility to: (1) know the learning outcomes for the course(s) that includes their unit; (2) ensure that their unit LOs map to the relevant CLOs; and (3) that the assessment tasks allow students to demonstrate their learning through achievement of the unit LOs.

The Course Coordinator (or your Head of School) should be consulted if the course LOs are not readily available to you or if you are unaware of where to find them. For so-called generic degrees such as the Bachelor of Science (BSc) or Bachelor of Arts (BA) in



Fig. 10

which students can choose from a variety of different majors, you may instead need to access the learning outcomes defined for the major in which your unit is included.

It is unlikely that any single unit will address all aspects of **every** CLO, but every unit within a course should be designed to contribute in some definable way to the CLOs or, in the case of elective and breadth units, to graduate attributes, as appropriate. For example, different units within a major may use assessments using different forms of communication (e.g. oral, written, or performed), or may or may not include teamwork. Acquisition of core disciplinary knowledge will necessarily be integrated over a series of units.

Elective and breadth units fulfill roles that are complementary to the units in the major(s). Such units enrich and enlarge a student's educational experience, and, particularly in the case of breadth units, support their development of the UTAS graduate attributes.

A graduate's achievement in the major or degree will therefore be the sum of the learning outcomes defined and achieved at unit level and embodied in a limited set of the CLOs relevant to that discipline. As a corollary, you may choose to define some unit LOs that do not map directly to the CLOs, but instead reflect the particular character of your unit.

In the following example, the unit learning outcomes for the Education unit ESH303 have been mapped to both the relevant external professional standards and to the UTAS generic graduate attributes. Note that, in addition, the students are usefully directed to further information on the professional standards for teachers. Also note that this example is written in the conditional tense ("On completion of this unit, you should be able to...."). Under the new regulatory approach, it will be necessary to demonstrate that students have indeed achieved all specified CLOS. A subtle change of wording is therefore necessary here ("On completion of this unit, you will be able to....").

Learning Outcomes

Learning Outcomes <i>On completion of this unit, you should be able to:</i>	Australian Institute for Teaching and School Leadership (AITSL) Standards ** <i>Your work in this unit should contribute to the following focus area:</i>	UTAS Generic Graduate Attributes
1. Evaluate legislation, policies, and professional teacher standards that relate to inclusive education.	1.6 - Strategies to support full participation of students with disability 7.1 - Meet professional ethics and responsibilities 7.2 - Comply with legislative, administrative and organisational requirements	Knowledge Global perspective
2. Identify and explain the diversity of students' needs and abilities.	1.1 - Physical, social and intellectual development and characteristics of students 1.2 - Understand how students learn 1.3 - Students with diverse linguistic, cultural, religious and socioeconomic backgrounds	Knowledge Global perspective
3. Design learning experiences tailored to individual student needs.	1.5 - Differentiate teaching to meet the specific learning needs of students across the full range of abilities 1.6 - Strategies to support full participation of students with disability 2.6 - Information and Communication Technology (ICT) 3.1 - Establish challenging learning goals 3.4 - Select and use resources 4.1 - Engage with professional teaching networks and broader communities	Knowledge Problem solving
4. Participate and engage collaboratively in learning and teaching contexts.	7.3 - Engage with the parents/carers 7.4 - Engage with professional teaching networks and broader communities	Social responsibility
5. Incorporate a range of perspectives, synthesise information, and reference according to the APA style (6 th Edition) within written assignments.	NA	Communication skills

Fig.11

** AITSL Standards

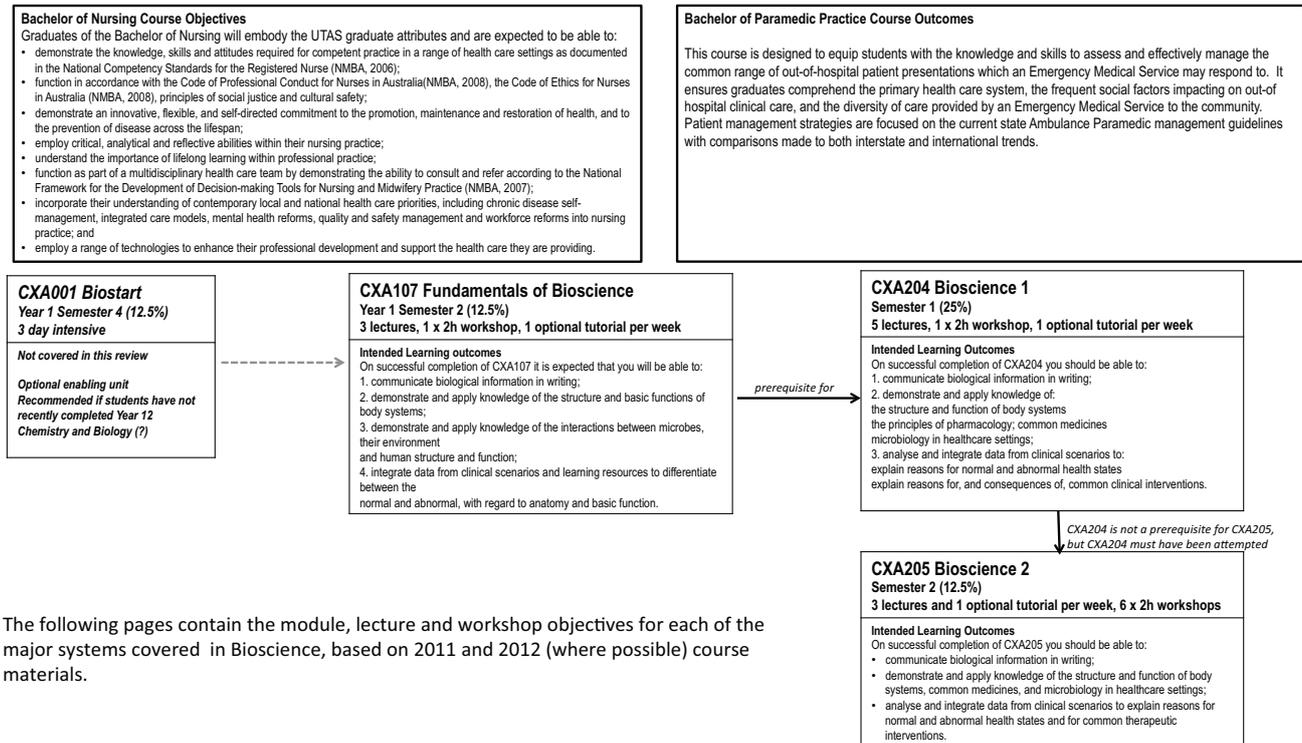
Please refer to the following URL for further information on AITSL Standards:

<http://www.utas.edu.au/education/learning-and-teaching/resources/unit-outline-information-essential-to-all-units>.

It is necessary to consider how your unit contributes to progression in student achievement of the CLOs. Especially if a unit is offered at the introductory, or intermediate level, the specific LOs for the unit may well reflect only developmental achievement of a graduate CLO. This means that not only does each unit have to be considered within the course/degree as a whole, but it requires negotiation on the part of individual staff members in order for the relationships between unit LOs and CLOs to be mapped both across and between levels. In your annual Unit Review, you are specifically asked to: "explain the role of the unit within the course or courses in which it is offered and its relationship to other units in the course" (see the online Unit Review

form). Thus, you have a responsibility to be aware of how your colleagues are designing their units, and to negotiate the relationships between units with the ultimate aim of ensuring that students in that degree program experience a well-designed and coherent curriculum that supports them to achieve the overall CLOs. The following example from the School of Health Sciences demonstrates how such mapping can be done.

Bioscience Curriculum for BN, BN Fast Track and BPP Fast Track students



The following pages contain the module, lecture and workshop objectives for each of the major systems covered in Bioscience, based on 2011 and 2012 (where possible) course materials.

Fig.12

2.3.1 Providing evidence of student achievement of CLOs

As a unit coordinator, you are already responsible for **moderation of assessment** within their unit: such moderation generally involves reviewing (rather than marking) a sample of students' marked work to determine whether the marking is consistent with the assessment criteria and undertaken at the appropriate standard. In the annual Unit Report,⁹ you are required to: *"Please explain the effectiveness of the unit in achieving its learning outcomes, including generic attributes. Make reference to how these align with assessment tasks."* You are also asked to report on whether your unit has undergone any form of external peer review of assessment since the previous report.

In the new national regulatory environment, universities will be required by TEQSA to provide evidence relating to learning standards. In the future, then, a further responsibility for unit coordinators will be to provide *material evidence* of student achievement of learning outcomes in the form of student work. This is most likely to take the form of sampled peer-marked assignments, with the peer marking involving a bench-

9. Draft Word version June 2013, available at: <http://www.utas.edu.au/student-evaluation-and-reporting-unit/unit-and-course-reports>

10. See, for example, the OLT-funded Learning and Teaching Standards Project [Inter-University Peer Review and Moderation of Coursework](#)

marking exercise between institutions.¹⁰ Other possible strategies include national tests, or student portfolios that can be submitted for external review: appropriate structures and resources will need to be developed to facilitate such dialogues.

Such bench-marking requirements open up important avenues for dialogue with colleagues teaching the same discipline at other universities. It is therefore vital that these exercises are not viewed as being driven solely by regulatory requirements but as a powerful strategy for improving and revitalising teaching through cross-fertilisation of ideas.

2.4 The roles and responsibilities of Course Coordinators under LTAS@UTAS

Although there may be some variation across the University in the degree of autonomy exercised by different course coordinators, these staff have a vital role to play as intermediaries between the teaching academics and the Associate Dean (Learning and Teaching), with whom they liaise closely.

Their [roles and responsibilities](#) encompass: course planning, course design and development, course delivery, selection of educational resources, assessment, students' learning outcomes and course evaluation. In particular, these roles include:

- providing course specific advice to students
- preparing annual course reports.

Both these duties require an awareness of, and an overt understanding of, the CLOs for their particular program(s).

Course coordinators may be required by the Associate Dean to produce a set of CLOs if these are not currently in existence, or to review and revise an existing set. This would be achieved in consultation with the Course Advisory Committee. Reference must be made to existing nationally agreed reference points for the discipline, accreditation requirements (if applicable) and international benchmarks (e.g. the [Subject Benchmark Statements](#) published by the U.K. Quality Assurance Agency, or the [Tuning](#) reference points for particular subject areas).

For established courses, the Annual Statement of Curriculum Philosophy (ASCP), which is a required section of the [Course Review](#) template, requires the course/major team to:

- “Develop overarching course/major/discipline level learning outcomes (no more than 10). Go to <http://disciplinestandards.pbworks.com/w/page/526657697/FrontPage> for Discipline Standards. These high-level threshold learning outcomes should demonstrate what a student would achieve by the end of the course/major study.
- Where appropriate, the overall learning outcomes required for accreditation and/or professional recognition should be clearly identified. “

Dr Emma Pharo and Professor Jamie Kirkpatrick took on the task of defining learning

outcomes for the Geography major. This was a particularly interesting challenge because this major is available within both the Bachelor of Science and the Bachelor of Arts. However, importantly, they were able to work with the nationally endorsed Geography TLOs, published by Professor Iain Hay as ALTC Discipline Scholar for Arts, Social Sciences and Humanities.

School of Geography and Environmental Studies learning outcomes

Note: Shaded words and strike throughs were added in Jamie and Emma's revision to the original Geography TLOs.

Upon completion of a bachelor degree with a major in geography and environmental studies, graduates will be able to:

TLO 1 Knowing

- 1.1 Demonstrate a ~~coherent~~ understanding of trends, processes and impacts that shape Australian and other environments and ~~for~~ societies at different spatial and temporal scales.
- 1.2 Demonstrate an understanding of Geography an ~~integrated~~ academic discipline, including awareness of their concepts and principal subfields, related to space, place and environment, whilst acknowledging the contested, provisional and situated nature of understanding.

TLO 2 Thinking

- 2.1 Apply geographical thought ~~creatively, critically and appropriately to specific spaces, places and environments.~~
- 2.2 Recognise, evaluate and synthesise various ~~subdisciplinary and transdisciplinary~~ views, arguments and sources of knowledge pertinent to solving problems in environmental and social problems.

TLO 3 Investigating and problem-solving

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

TLO 4 Communicating

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

TLO 5 Self-directing and collaborating

- 5.1 Contribute effectively as a member or leader of a diverse team, working in multidisciplinary contexts.
- 5.2 Reflect on and direct their intellectual and professional development as geographers.

Dr Pharo commented:

The discipline specific TLOs have made it much easier for our School. We started the process of mapping our units against the Geography TLOs because we realised that many geography units did not fit the Science TLOs. Some of our geography units are science units and these were mapped against the Science TLOs, but for most of our units we needed to integrate other disciplines and apply learning that wasn't captured by the Science TLOs. It seemed a natural step to use Iain Hay's 2011 Learning and Teaching Academic Standards Resources for Geography and History to identify gaps and overlaps in our geography major. Two of us sat down and adapted the national geography TLOs to better fit our geography majors and then mapped our offerings against each TLO. It was immediately clear that there are some areas that we could cover better, and some instances where much the same skill being taught in multiple units. The next step in this process is to more formally map all geography units. This will help inform discussions with other Schools and Faculties as we move to make some major curriculum changes and merge our teaching with other Schools.

Fig.13

For proposed new courses, a 'top-down' approach to curriculum is appropriate: course learning outcomes should be defined first (with appropriate use of national and international reference points, and in consultation with the Course Advisory Committee), and then the teaching and assessment program is designed to align with these CLOs. In addition, the curriculum must be designed so as to allow students to achieve the UTAS graduate attributes and, where applicable, to meet the requirements of professional accreditation.



Fig.14

In some cases, such as specialist or multidisciplinary courses, it may be difficult to source specific external reference points for the course learning outcomes. In such instances, multiple reference points may be used in order to define CLOs.

Dr Chris Burke (Associate Dean, Learning and Teaching, AMC) developed learning outcomes for the degree Bachelor of Applied Science (Marine Environment), which takes an innovative translational science approach, integrating the natural sciences with social sciences, management, policy and law. In developing course LOs for this degree, he took the LTAS Science TLOs as a starting point. However, this approach did present some challenges: the Science TLOs needed to be modified and additional LOs written in order to capture the multi-disciplinary nature of the degree. The newly developed course learning outcomes are contextualised by the statement of Curriculum Philosophy, and learning outcomes aligned with the CLOs are also being developed for the three majors within the degree.

In most cases, the nationally agreed threshold learning outcomes developed during and since the ALTC LTAS Project are applicable to only one degree level, usually the bachelor level (AQF Level 7). For degrees at other levels (e.g. Honours), it will therefore be necessary to adapt the available TLOs to the required level. This may be done using a combination of the relevant AQF descriptor, Bloom's Taxonomy, and consideration of the overall purpose and aims of the course.

For example, the Advisory Group to the ALTC LTAS Science Project developed a set of draft Honours level TLOS for Science.

Honours level Learning Outcomes for Science

	Upon completion of a Bachelor Degree in Science with Honours, graduates will:
Understanding science	Demonstrate through their own practice: <ul style="list-style-type: none"> 1.1 an advanced understanding of the methods and processes of science as a creative endeavour 1.2 that current scientific knowledge is both contestable and testable by further inquiry.
Scientific knowledge	Exhibit depth and breadth of scientific knowledge by: <ul style="list-style-type: none"> 2.1 demonstrating advanced knowledge in one or more disciplinary areas 2.2 demonstrating the potential to make original contributions to scientific knowledge 2.3 integrating their own research findings with the current body of disciplinary knowledge/paradigms.
Research, inquiry and problem solving	Conduct a research investigation under supervision in a research or professional environment by: <ul style="list-style-type: none"> 3.1 critically analysing a challenging complex or multi-faceted problem, identifying research questions, designing and planning a project 3.2 selecting and applying practical and/or theoretical techniques or tools to address a research question 3.3 analysing, interpreting and critically evaluating research findings.
Communication	Be effective communicators of science by: <ul style="list-style-type: none"> 4.1 communicating scientific ideas and research findings to informed professional audiences using a variety of modes.
Professional responsibility and personal development	Be accountable for their own learning and scientific work by: <ul style="list-style-type: none"> 5.1 demonstrating initiative and intellectual independence. 5.2 collaborating effectively. 5.3 complying with regulatory frameworks and practising professional ethics relevant to their disciplinary area.

Fig.15 Threshold Learning Outcomes for Honours degrees in Science (See: Jones, S. Yates, B. & Kelder, J. (2011). Science Learning and Teaching Academic Standards Statement. Strawberry Hills, N.S.W.:Australian Learning and Teaching Council. Retrieved June 26, 2012, from <http://www.olt.gov.au/resources>.)

These draft Honours TLOs are aligned to the Science TLOs for bachelor level degrees but reflect the higher level (AQF level 8) and the general purpose of the majority of Honours degrees in science (to provide a pathway into a research higher degree research).

Under LTAS@UTAS, the Course Coordinator needs to ensure that all unit coordinators are aware of the CLOs, have mapped their unit LOs to the CLOs, and designed aligned

assessment tasks. He/she should take responsibility for facilitating collegial discussion amongst the unit coordinators about the course curriculum as a whole. The Associate Dean (Learning and Teaching) may direct the Course Coordinator to organise and analyse the mapping of unit LOs to the CLOs as a means towards curriculum reform or curriculum review.

The UTAS [Course Review](#) template formally requires the following:

“In reflecting on course/major curricula, course/major teams are to undertake a mapping exercise to assist in identifying, modifying and augmenting course/major level statements which includes-

- Demonstrating how course/major level outcomes are identified throughout the units
- Demonstrating how the UTAS Graduate Attributes are developed through the units
- Demonstrating progression in student learning through levels of study”.

The Associate Dean (Learning and Teaching) will require the Course Coordinator to organise the collection of *evidence* that graduates of that course have met the CLOs in order to meet the requirements of the TEQSA Standards. Such evidence is most likely to take the form of *sampled peer-marked assignments* collected via a cross-institutional bench-marking exercise. Other possible strategies include national tests, or student portfolios that can be submitted for external review.

The Course Coordinator must also ensure that students are made aware of the CLOs and broad aims of the course in which they are enrolled. Ideally, this should be reiterated at different stages of the program of study, beginning early in the first semester, and should be done via both formal written information (e.g. in the course brochure) and more informal oral communication directly to enrolled students. For example:

Dr Heather Monkhouse dedicates a teaching session at the end of the first week of semester to talking with the new first year BMus cohort about how their course has been planned, what they will learn, and what they should expect to achieve during their degree studies. This gives students the opportunity to ask holistic questions about their course.



Fig.16

As an example of a different strategy, the Faculty of Education makes information which is essential to all units available to their students on the faculty website. For these students, who are enrolled in professionally accredited degrees, the importance of professional standards and the requirement for students to provide evidence against them are stressed:

Standards contribute to the professionalisation of teaching and raise the status of the profession. The National Professional Standards for Teachers is a public statement of what constitutes teacher quality. The Standards comprise seven Standards which outline what teachers should know and be able to do; they are interconnected, interdependent and overlapping. In the near future, reaccreditation will be undertaken using the Australian Institute for Teaching and School Leadership's (AITSL) National Professional Standards for Teachers. Students will need to be able to develop their portfolio inclusive of evidence against these Standards, therefore you are strongly encouraged to become familiar with information located at the following URL:
<http://www.teacherstandards.aitsl.edu.au/Standards/Overview>.

2.5 The roles and responsibilities of Heads of School under LTAS@UTAS

Heads of School may have two areas of specific responsibility under LTAS@UTAS.

First, when a major is delivered entirely by their School, they may personally take the role of Major Coordinator, and therefore be responsible for the development and quality assurance of learning outcomes for the major(s) taught by their School: alternatively, they may delegate that responsibility to another academic.

However, every Head of School holds important responsibilities for quality assurance relating to learning and teaching. Those aligned with LTAS@UTAS include:

- Identifying units to be reviewed each year
- Organising a process to quality assure these units, such as a unit review meeting

Heads of School may also need to advise on and facilitate external peer review of assessments for units under review.

More broadly, Heads of School have a responsibility to be familiar with the University's Standards Framework (in this context, the dimensions of *Curriculum and Learning* in particular), and to keep abreast of current developments in the national regulatory environment. They will nurture a consistent and innovative approach to curriculum design within their School, provide relevant mentoring to teaching academics, and facilitate recognition of good teaching through peer review. The ultimate goal is to improve the student learning experience and the quality of teaching.

2.6 The roles and responsibilities of Associate Deans (Learning and Teaching) under LTAS@UTAS

2.6.1 Leadership

The leadership of the Associate Deans (Learning and Teaching)(hereafter Associate Deans) is pivotal to achieving the core aims of the LTAS@UTAS Project.

Specifically:

UTAS will have a comprehensive approach to intended learning outcomes across all faculties and programs, identified at:

- Subject/discipline or sub-discipline levels;
- At course/program levels, noting the need to link unit outcomes as constituent elements that build towards a course award that has a clear rationale in terms of the educational outcomes expected; and
- articulated at threshold and more advanced levels of student achievement.

In addition, the Associate Deans have carriage of ensuring that this institution meets key requirements of external regulatory bodies. In the context of learning outcomes, these are:

1. AQF: all courses must be demonstrably AQF-compliant by 2015.
2. TEQSA: all courses will meet standards of course design (coursework), and learning standards (coursework).

There are therefore three core actions required:

1. Definition and publication of course learning outcomes (CLOs).
2. Curriculum design, redesign or renewal in order that all pass level students can be demonstrated to meet the CLOs. This requires mapping of unit learning outcomes against the CLOs and concurrent alignment of unit assessment tasks and learning outcomes.
3. Validation through external bench-marking of sample student work.

2.6.2 Definition of course learning outcomes (CLOs)

As previously discussed on pages 8-10, the standards require that the *Reference Points* for the learning outcomes for a particular course will be as follows:

- Australian Qualifications Framework (AQF)(January 2013).
- Learning outcomes statements developed for the field of study by Office for Learning and Teaching discipline communities or other disciplinary or professional bodies.
- The requirements for professional accreditation of the course of study and registration of graduates where applicable.

The AQF provides a comprehensive framework of generic learning outcomes for all fifteen levels of qualification in post-compulsory training and education. It facilitates a common understanding of how each qualification level is defined, and promotes national and international recognition of Australian qualifications. Importantly, the AQF informs the threshold Qualifications Standards monitored by the [Tertiary Education Quality and Standards Agency \(TEQSA\)](#). [Implementation](#) of the AQF commenced on 1 July 2011. All requirements of the AQF will be met by January 1st 2015: this mandates that all UTAS courses will be demonstrably AQF-compliant by that date.

However, the AQF provides a generic framework only. Course learning outcomes must be articulated in the appropriate disciplinary context and take account of disciplinary norms. Thus, the Reference Points defined by the HESP necessarily include: "Learning outcomes statements developed for the field of study by Office for Learning and Teaching discipline communities or other disciplinary or professional bodies" [see page 10].

The ALTC LTAS Project led the way in the development of nationally agreed discipline-specific TLOs, a process that was facilitated by the ALTC Discipline Scholars. The outputs of that project, in the form of disciplinary Standards Statements, are available via the [Resource Library](#) section of the OLT website, or on the [pbworks](#) website administered by the ALTC Discipline Scholars.

For example, TLOs for bachelor-level degrees in Chemistry, which map to the Science TLOS and also reference professional accreditation requirements, were developed by the Chemistry Working Party supported by the Science LTAS project. The OLT-funded Chemistry Discipline Network (ChemNet) is now working towards implementation of these learning standards by Chemistry departments across Australia, and collecting exemplars of teaching and assessment activities that address each Chemistry TLO. As a first step, ChemNet organised the mapping of first year Chemistry units in six universities to the Chemistry TLOs.

The success of the ALTC LTAS project stimulated the OLT to fund a series of [disciplinary networks](#) (two year funding over 2011-2013) to build on the work of the Discipline Scholars. The majority of these 16 networks overtly aim to develop disciplinary TLOs and to develop common understandings of how these TLOs may be validly assessed.

Dr Tina Acuna (School of Agricultural Sciences) is leading a project that aims to develop TLOs for bachelor-level degrees in Agricultural Science. Beginning as a local UTAS-focused project under the auspices of the Science and Mathematics Network (SaMnet), this project team has developed a draft set of Agricultural Science TLOs. They have sought the input of Agricultural Science academics at other universities through an online survey, and are now working at the national level via the Australian Council of Deans of Agriculture (ACDA) to achieve national agreement on a set of TLOs.

With the explicit statement by the HESP that Reference Points for CLOs will include “Learning outcomes statements developed for the field of study by Office for Learning and Teaching discipline communities or other disciplinary or professional bodies”, it becomes imperative that all disciplinary communities not yet engaged in such development move ahead to develop their own TLOs. Such activities must be national in scope and, where appropriate, the outputs must be endorsed by the relevant peak body for the discipline. For example:

The issue of multidisciplinary courses is necessarily more complex. In such cases, a suite of external reference points may be required during development or refining of CLOs.

In addition, courses that have already been mapped against standards for professional accreditation and/or UTAS graduate attributes will need to be aligned with nationally endorsed learning outcomes statements developed for the field of study.

2.6.3 Mapping of learning outcomes against the CLOs and alignment with assessment

11.

From the website of Beverley Oliver's ALTC Fellowship on Assuring Graduate Capabilities: <http://boliverning.com/page/mapping-1>

Mapping of unit-level learning outcomes against course LOs is a major exercise that requires planning, coordination and adequate resourcing. Three key considerations are:

the tool: an instrument, document or package which allows easy aggregation and visualisation of the key aspects of a degree program

the process: the way in which the tool is used with and by teaching and support staff, and

the purpose for which it is adopted”.¹¹

Selection of the most appropriate mapping tool must be carefully considered. There are proprietary tools available, either as freeware or as purchasable software, but the specific focus of a particular mapping exercise may mean that a purpose-built tool has to be developed in-house.

12.

Jones, S. Yates, B. & Kelder, J. (2011). Science learning and teaching academic standards statement. Strawberry Hills, N.S.W., Australian Learning and Teaching Council. Retrieved June 26, 2012, from <http://www.olt.gov.au/resources>.

For example, the Faculty of Science, Engineering and Technology (FSET) mapped the current (2012) curriculum for the Bachelor of Science against the nationally endorsed Science TLOs. The *purpose* was to assess the extent to which that curriculum supported students to meet the Science TLOs.¹² This mapping was seen as a necessary prelude to the planned renewal of the BSc curriculum in 2013.

After considering various options, the project team chose to commission a custom-made mapping tool that would allow mapping of individual units within each major against the Science TLOS: in particular, they wished to know whether that unit addressed each Science TLO in its teaching, whether there was aligned assessment and, if so, whether a student assessed as passing that assessment task would partially meet, meet, or exceed the graduate-level TLO. The original spreadsheet-based instrument dealt with data from individual units only. The *process* employed by the project team involved collegial discussions with each School around the Science TLOs and their current teaching: the

13.
O'Neill, G. (2010).
Initiating curriculum
revision: exploring the
practices of educational
developers.
International Journal for
Academic
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importance of engaging academic staff in an on-going dialogue has been identified as a key strategy in curriculum revision.¹³ Unit coordinators took responsibility for completing a spreadsheet form for their unit either at or shortly after the workshop and submitting these for collation by the project team.

The original FSET mapping instrument was later developed into a web-based tool that automatically amalgamates individual unit reports into a "traffic light" report for each major within the BSc. A sample Report is shown in report on the major in Zoology:

Teaching and Learning Outcome (TLO)	Students who complete this unit satisfactorily will:	Is TLO Taught	Is TLO Assessed	If assessed, then the student demonstrates standard:
TLO 1. Understanding Science	1.1 articulating the methods of science and explaining why current scientific knowledge is both contestable and testable by further inquiry	yes	yes	Meets graduate TLO: yes
	1.2 explaining the role and relevance of science in society	yes	yes	Meets graduate TLO: yes
TLO 2. Scientific Knowledge	2.1 demonstrating well-developed knowledge in at least one disciplinary area	yes	yes	Meets graduate TLO: yes
	2.2 demonstrating knowledge in at least one other disciplinary area	yes	yes	Meets graduate TLO: partially
TLO 3. Inquiry and problem solving	3.1 gathering, synthesising and critically evaluating information from a range of sources	yes	yes	Meets graduate TLO: yes
	3.2 designing and planning an investigation	yes	yes	Meets graduate TLO: yes
	3.3 selecting and applying practical and/or theoretical techniques or tools in order to conduct an investigation	yes	yes	Exceeds graduate TLO: yes
	3.4 collecting, accurately recording, interpreting and drawing conclusions from scientific data	yes	yes	Meets graduate TLO: yes
TLO 4. Communication	4.1 a) communication to a scientific audience	yes	yes	Meets graduate TLO: yes
	4.1 b) communication to other audiences	yes	yes	Meets graduate TLO: partially
TLO 5. Personal and professional responsibility	5.1 being independent and self-directed learners	yes	yes	Meets graduate TLO: yes
	5.2 working effectively, responsibly and safely in an individual or team context	yes	yes	Meets graduate TLO: yes
	5.3 demonstrating knowledge of the regulatory frameworks relevant to their disciplinary area and personally practising ethical conduct	yes	yes	Meets graduate TLO: yes

Fig. 17

This particular tool can be used to highlight, for example, over-assessment of particular learning outcomes, or to show where there is inadequate scaffolding between levels of unit offering. However the FSET tool does not clearly identify aligned assessment tasks, nor does it provide overt evidence that learning outcomes are being met by graduates. Thus, its purpose is limited to an initial scanning of the curriculum. The important next

step of providing evidence that students meet the CLOs will require a more detailed analysis of assessment across the curriculum.

The Summary Paper 9 in the *Assessing and Assuring Graduate Learning Outcomes* project (undertaken by the University of Sydney, the University of Queensland and RMIT University) provides a useful starting point for considering a 'whole of program approach to assessment', with particular emphasis on the challenges therein. See [AAGLO Summary Paper 9](#).

2.6.4 Mapping and accreditation

The new regulatory environment for higher education requires alignment between nationally recognized threshold learning outcomes and professional accreditation standards. This presents some challenges, as two separate sets of reporting requirements may need to be addressed.

A major OLT-funded project *Harmonising higher education and professional quality assurance processes for the assessment of learning outcomes in health* is addressing this important issue for the Health Sciences. Working within a framework organised around the Health Sciences threshold learning outcomes, this project is working across, and with, higher education institutions and healthcare professional accreditation agencies to identify and match the goals and expectations of educational, professional and governmental institutions in relation to quality assurance.

2.6.5 Providing evidence of student achievement

Curriculum mapping against course learning outcomes is widely used as a tool for curriculum development or renewal. However, the provision of overt evidence of student learning is less common: accreditation requirements often focus on educational inputs rather than outputs.

The national sector as a whole will need to come to terms with the new regulatory requirement to provide evidence of student learning outcomes. This will require considerable research and development of optimal strategies for peer bench-marking of student work. A number of recent OLT-funded projects have addressed aspects of this important issue: a synthesis of this work can be found in the OLT Good Practice Report *Assuring graduate outcomes* (2011) by Professor Beverley Oliver. However, it is clear that considerable work needs to be done before nationally acceptable systems of gathering evidence of student learning outcomes are fully established and embedded in practice.

