

4. ENSURING QUALITY COURSE AND UNIT EXPERIENCES

Course quality

Until recently, the Australian Government monitored and rewarded course quality through the Learning and Teaching Performance Fund (LTPF) using seven performance indicators:

Student satisfaction indicators (*Course Experience Questionnaire*)

- Satisfaction with Generic Skills
- Satisfaction with Good Teaching
- Overall Satisfaction

Outcome indicators (*Graduate Destination Survey*)

- Full-time employment
- Further full-time and part-time study

Success indicators

- All Bachelor students' progress rates
- Commencing Bachelor students' retention rate

The LTPF has recently been discontinued. Following the recent review of higher education, commonly known as the Bradley Review, a new national body for regulation and quality assurance will be established: the Tertiary Education Quality and Standards Agency (TEQSA) will oversee strengthened quality assurance arrangements in Australian higher education. It will accredit providers, evaluate the performance of institutions and programs, encourage best practice, de-clutter current regulatory arrangements and provide greater national consistency. Institutions will be required to demonstrate that their graduates have the capabilities that are required for successful engagement in today's complex world. For more information see www.deewr.gov.au/HigherEducation

At Curtin, course quality is monitored through the Annual and Comprehensive Course Review processes:

Annual Course Review monitors and analyses key indicators related to student profile, demand and the quality of teaching and learning. The major focus is to analyse course performance and identify initiatives for improvement.

Comprehensive Course Review (every five years) reviews and analyses the entire academic program for an award; its regulations, structure (its units, major and minor sequences), currency of the curriculum, quality of teaching and learning, relevance of assessment tasks, fieldwork, projects and work experience, and any other aspects which comprise the award course. The major focus is to review the course curriculum map (which shows how the learning outcomes and assessments contribute to the achievement of course learning outcomes), to review the level of engagement in learning experiences in all modes (and consider student retention and pass rates), and to monitor student perceptions of how all aspects of the course support their achievement of the course learning outcomes. Courses may be reviewed individually or in clusters. For further information on the *Course Review Policy*, see www.policies.curtin.edu.au/documents/course_review.pdf

Tools for Course Review: The Needs Analysis and the Curriculum Map

The comprehensive course review commences with the Needs Analysis which captures a 360 degree perspective from key stakeholders including current students, recent graduates, the teaching team, employers and industry experts, and potential benchmarking partners. The Needs Analysis seeks to provide evidence to maintain the strengths of the course change and inform improvements.⁴ The Curriculum Mapping Tool shows all units in the course (the syllabus, learning outcomes and the Graduate Attributes to which they relate, assessment alignment with learning outcomes and the level of thinking they require.⁵ The curriculum map also shows how and where the Graduate Attributes and the triple-i curriculum are contextualised, embedded and assessed throughout the course. An enhancement of the curriculum map for 2010 will include the capacity to show where the triple-i is addressed in the curriculum as well as visual representations of key aspects of a course, such as the types, timing and weighting of assessments, and the timing and frequency of Graduate Attributes. For further information, see www.otl.curtin.edu.au.

Unit quality

Quality course experiences are created by a combination of excellent curriculum and learning experiences, and services and facilities which meet reasonable student expectations. This section focuses on creating excellent curriculum in units of study and making expectations very clear through unit outlines.

Unit outlines

The unit outline is a binding document. What is learnt and assessed in units must be communicated very clearly in language which is easily accessible by students who are not experts in the discipline.



Unit coordinators are responsible for preparing accurate unit outlines which must be available to students online no later than two weeks prior to the commencement of the study period. The information in this section is from the University's policy on Unit Outlines—for the full text, see the relevant chapter of the *Assessment and Student Progression Manual* www.policies.curtin.edu.au/policies/viewpolicy.cfm

Unit Outlines must contain the following:

1. Administrative information:

- Unit title
- Syllabus (or unit description—must be same as online handbook)
- Study package code
- Area responsible for teaching the unit (school, dept, centre)
- Credit value of the unit
- Modes of study (on campus, blended, fully online)

⁴ Jones, S., & Oliver, B. (2008, July). *360-degree Feedback on Courses: Needs Analysis for Comprehensive Course Review*. Paper presented at the Australian Universities Quality Forum 2008, Canberra

⁵ Oliver, B., Jones, S., Tucker, B., & Ferns, S. (2007). *Mapping curricula: ensuring work-ready graduates by mapping course learning outcomes and higher order thinking skills*. Peer-reviewed paper presented at the Evaluations and Assessment Conference, Brisbane.
www.eac2007.qut.edu.au/proceedings/proceedings_ebook.pdf

- All co-requisite, pre-requisite, and anti-requisite units
- Any additional requirements that must be completed prior to commencing the unit (such as completion of a first aid certificate)
- Result type (Pass/Fail or Grade/Mark)
- A link to information outlining any approved ancillary charge(s) required to be paid by the student to undertake the unit
- Contact details for Unit Coordinator

2. Learning information:

- Unit learning outcomes
- Learning activities (e.g. lectures, tutorials, workshops, seminars, labs and individual and collaborative online learning activities)
- Essential and recommended textbooks and other reading, including online resources
- Learning resources available for the unit and details of how to access them
- Details of assessment tasks including criteria for successful completion of the unit; number, type and purpose of assessment tasks and the distribution of marks between them; how unit learning outcomes are assessed in each assessment task; due dates for all scheduled assessment tasks; dates students can expect their assignments to be marked and/or returned
- Details of any penalties for late submission of assessment tasks (where late submission is accepted)
- Dates of field work, clinical or practical placements and, where applicable, guest lectures and other special activities (where known)
- The referencing style to be used and access to guidance on how to use it
- Contact details for teaching staff, including the Unit Coordinator
- Recent unit changes as a result of student and stakeholder feedback
- Program Calendar

3. A reference to Student Rights and Responsibilities (www.students.curtin.edu.au/rights) by incorporating the following text in the unit outline:

It is the responsibility of every student to be aware of all relevant legislation and policies and procedures relating to their rights and responsibilities as a student. These include: the Student Charter; the University's Guiding Ethical Principles; the University's policy and statements on plagiarism and academic integrity; copyright principles and responsibilities; the University's policies on appropriate use of software and computer facilities; students' responsibility to check enrolment; deadlines, appeals and grievance resolution; and electronic communication with students.

Additional information: The unit outline may also include references to Faculty or school policies and other relevant information, and University policy on academic integrity, including plagiarism and copyright.



The online Unit Outline Builder (UOB), a system designed to assist teaching staff to produce and publish unit outlines, will be implemented. As courses complete Comprehensive Course Review, Unit Coordinators will be able to create unit outlines using the UOB system. A word template which replicates the fields in the UOB system is available for download www.otl.curtin.edu.au/downloads/unit_outline_builder_template_6pg_091009.doc. For updates on the UOB implementation, www.otl.curtin.edu.au/

Updating and reviewing units of study

Official records for every course, major, stream and unit are held on the Student One data base. To make any changes to this official information consult the University's *Course Approval Policy and Procedures* at www.policies.curtin.edu.au/policies/viewpolicy.cfm

Course learning outcomes

Course learning outcomes are what graduates of a course are expected to have achieved. Derived from Curtin's nine graduate attributes (see pages 6 and 7), course learning outcomes are discipline specific and provide an overarching course framework. Every course at Curtin has nine course learning outcomes which are embedded and assessed in units throughout the course. To see how course learning outcomes are linked to units in a course see www.otl.curtin.edu.au/downloads/clo_ulo_relationship_template.pdf.

How to create good unit learning outcomes

Unit learning outcomes are what students are expected to know and do in order to be successful in a unit. Unit learning outcomes begin with a strong action verb and describe an intellectually challenging, observable and measurable achievement, see Figure 6. They must be easily understood by students and clearly related to the course learning outcomes

Figure 6 Characteristics of good unit learning outcomes

Clearly stated tasks	They are free from jargon and complex vocabulary, and they describe specific and achievable tasks (using verbs such as 'describe', 'analyse' or 'evaluate' rather than vague task verbs like 'appreciate', 'understand' or 'explore').
Essential learning	They describe the essential (rather than trivial) learning in the unit, which a student must achieve.
Achievable	They can be achieved within the study period and there are sufficient resources available.
Demonstrable	They can be demonstrated in a tangible way.
Measurable	They are assessable (and the quality of achievement can be observed).
Fair and equitable	All students, including those with disabilities or constraints, have a fair chance of achieving them.

Unit learning outcomes can be pitched at various levels of thinking: assessments which require lower order thinking skills only ask students to demonstrate their knowledge and comprehension (often through tests of memory, for example). More demanding tasks - and those more appropriate in university study - require students to demonstrate application, analysis, evaluation and creation. Figure 7, page 16, gives examples of tasks at different levels of thinking, and includes a guide to unit learning outcome and assessment verbs which correlate with each level of thinking. At Curtin, we have adopted a star rating system to see the level of thinking skills in unit learning outcomes.

Figure 7 Levels of thinking (or cognitive demand) adapted from Bloom’s Revised Teaching Taxonomy⁶ with star ratings and unit learning outcome and assessment verbs

Level of thinking	Skills Demonstrated and Assessment Verbs
1. Remembering ★	observation and recall of information; knowledge of dates, events, places, materials, objects; knowledge of major processes; mastery of subject matter Unit learning outcome and assessment verbs: arrange, cite, collect, define, describe, duplicate, enumerate, examine, find, identify, indicate, label, list, locate, match, memorise, name, order, outline, quote, recall, recite, recognise, record, relate repeat, reproduce, retrieve, select, show, state, tabulate
2. Comprehending ★★	understand information, grasp meaning; translate knowledge into new contexts; compare and contrast; order, group, infer causes, predict consequences Unit learning outcome and assessment verbs: arrange, articulate, associate, classify, compare, contrast, describe, differentiate, discuss, distinguish, exemplify, expand, explain, express, extend, identify, illustrate, indicate, interpret, locate, match, outline, paraphrase, recognise, relate, report, restate, review, select, summarise
3. Applying ★★★	use information; use methods, concepts, theories in new situations; solve problems using required skills or knowledge; use equipment, tools Unit learning outcome and assessment verbs: administer, apply, calculate, chart, classify, collect, compute, control, convert, demonstrate, determine, develop, dramatise, draw, employ, estimate, execute, exhibit, illustrate, implement, manipulate, model, modify, operate, practice, prepare, relate, report, select, show, sketch, transfer, use, utilise
4. Analysing ★★★★	discern patterns; organise parts; recognise hidden meanings; identify components, simplify complex information; metacognition Unit learning outcome and assessment verbs: analyse, calculate, categorise, classify, compare, contrast, correlate, deconstruct, detect, differentiate, discriminate, distinguish, examine, explain, interpret, organise, quantify, research, scrutinise, separate, sequence, subdivide, survey, test, translate
5. Evaluating ★★★★★	compare and discriminate between ideas; think critically, make judgments about worth (based on stated premises); assess the value of theories, make choices based on reasoned argument; verify or question the value of evidence Unit learning outcome and assessment verbs: appraise, argue, assess, categorise, choose, compare, conclude, contrast, critique, debate, decide, deduce, defend, discriminate, dispute, establish, estimate, evaluate, gauge, generalise, hypothesise, infer, interpret, judge, justify, measure, monitor, negotiate, predict, prioritise, propose, prove, rank, rate, recommend, relate, select, support, validate, verify
6. Creating ★★★★★★	Combining ideas to develop an original idea or product, engage in creative thinking. Unit learning outcome and assessment verbs: adapt, anticipate, assemble, change, communicate, compare, compile, compose, construct, create, derive, design, develop, devise, formulate, generate, hypothesise, improve, incorporate, infer, initiate, integrate, interpret, invent, make, modify, originate, plan, produce, reconstruct, revise, synthesise, transform, visualise

⁶ Krathwohl, David R. (2002). A Revision of Bloom’s Taxonomy: An Overview. *Theory Into Practice*, 41(4), 212-218.

A simple process for creating unit learning outcomes

The process described here is one way unit coordinators can create clear unit learning outcomes, ensuring they are statements which students can understand. Students must be absolutely clear about what they are expected to be able to do.

Step 1: Imagine that a prospective student comes to see you about enrolling in a unit you coordinate. The student wants to know exactly what they will be able to know or do if they are successful in the unit. Use everyday language to tell the student clearly what he or she will be able to do if they are successful in the unit. Make sure the student understands; they do not have your discipline expertise yet.

Step 2: Drawing on your dialogue, write down three or four statements which explain exactly what students will be able to do when they have successfully completed the unit. Rework the statements until they are clear and concise, and readily understandable by a person who has not yet studied the unit. Avoid all educational jargon and complex discipline-specific terms.

Step 3: Craft the statements into learning outcomes, still avoiding educational jargon. Make sure each one begins with a verb which clearly describes what students will be able to do. Be specific (say students will be able to 'describe' or 'analyse' or 'evaluate') rather than vague (avoid 'appreciate', 'understand', 'explore' or 'be familiar with'. How will you 'test' whether students appreciate something? Change these verbs to actions which can be observed and measured). Check your verbs against the Bloom's Revised Teaching Taxonomy (Figure 7, page 16) to see what level of thinking you are expecting. Ensure outcomes require higher order thinking skills (star ratings of four and above).

Step 4: Ensure the outcomes are intellectually challenging and measure achievement of essential rather than trivial learning. Consider whether students can realistically achieve all the outcomes within the study period. If not, cull them until you are satisfied that they are achievable.

Step 5: Consider how you will assess the outcomes. It is difficult to assess 'attitudes' but relatively easy to assess behaviours that are consistent with a desired attitude. Will you be able to assess and provide suggestions for improvement within a reasonable time? Will the task show you when a learning outcome has not been achieved? Will it be clear when a student has achieved an outcome at a very high level? Are the assessment tasks fair and equitable? For more information on assessments, see Chapter 5, page 22.

Step 6: When you are satisfied with the unit learning outcomes, check that they are easily understood and that the assessments measure them directly. In your unit outline, make sure students can see the learning outcomes and the assessment tasks, and how they are linked.



Recommended further reading on creating learning outcomes:

Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals. Book 1: Cognitive domain*. London: Longman. Though Bloom's taxonomy was later revised (see Anderson, L.W., & Krathwohl (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman) the original taxonomy continues to be a useful tool when creating good learning outcomes.

Huba, M. E., & Freed, J. E. (2000). *Learner-centred assessment on college campuses: Shifting the focus from teaching to learning*. Boston: Allyn and Bacon.

Embedding and assessing the course learning outcomes (derived from the graduate attributes) as unit learning outcomes

Curtin University has nine graduate attributes for every course. In the curriculum mapping process, unit coordinators identify which graduate attributes are embedded and assessed in relation to each unit learning outcome. As the nine graduate attributes have a high degree of overlap, unit learning outcomes frequently map to more than one graduate attribute. This section explains how each graduate attribute can be contextualised and embedded in unit learning outcomes.



Graduate Attribute 1: Apply discipline knowledge

Curtin graduates must be thoroughly knowledgeable in their discipline areas. This includes factual knowledge ('knowing what'), conceptual knowledge (mastering concepts which can be applied in different situations), procedural knowledge ('know-how') and metacognitive knowledge (understanding how we 'know what we know').

For example, successful students in this unit can:

- *Apply the principles of [a theory] to interpret and improve [an issue]*
- *Provide an effective intervention program in relation to [an issue]*
- *Explain the concept of [name]*
- *Differentiate between [X] and [Y] in relation to [Z]*
- *Extend the boundaries of knowledge through research*



Graduate Attribute 2: Thinking skills

Critical thinkers can judge the credibility of sources; identify conclusions, reasons, and assumptions; judge the quality of an argument; develop and defend a position on an issue; ask appropriate clarifying questions; and identify valid and invalid arguments. Creative thinkers can also suggest solutions to problems.

For example, successful students in this unit can:

- *Analyse issues of belief, empirical truth, and logic in [an issue]*
- *Evaluate the credibility of sources of information and opinion*
- *Explain relevant and irrelevant claims in a given context*
- *Discriminate between valid and invalid arguments in an article*
- *Recommend quality improvement in discipline practice based on evaluation of information*
- *Extrapolate and differentiate data to recommend a course of action within financial constraints*
- *Interpret common types of statistical information*



Graduate Attribute 3: Information skills

This attribute is closely related to information literacy, that is, the ability to engage in the process of effective information management: using appropriate tools to find information; judge the value of information, know how to refine a search to find better information, and synthesise information from a range of sources. Information literacy requires strong critical thinking skills.

For example, successful students in this unit can:

- *Analyse a research topic in order to locate and evaluate relevant literature*
- *Synthesise ideas from several sources to formulate a position on a topic*
- *Diagnose a problem by synthesising relevant information*
- *Recommend a course of action based on the synthesis and evaluation of information*



Graduate Attribute 4: Communicate skills

This attribute is often the most valued by employers. Knowledgeable graduates need to be able to communicate with experts and non-experts (such as patients, colleagues, children and members of the community). Desirable graduate communication skills vary according to discipline, but the vast majority require effective written and oral communication in different modes with different audiences, and strong interpersonal skills.

For example, successful students in this unit can:

- *Communicate a treatment for a non-expert audience (or an expert audience)*
- *Apply appropriate technological and communication skills to create and maintain online resources*
- *Present and defend research findings orally and in writing*
- *Prepare research findings appropriately for a peer-reviewed conference*
- *Facilitate and maintain records of meetings*



Graduate Attribute 5: Technology skills

Technological literacy includes computer skills and the ability to use other technologies to improve learning, productivity and performance, as well as the ability to keep abreast with new and emerging technologies and discern their appropriateness for tasks.

For example, successful students in this unit can:

- *Describe relevant technologies for appropriate interaction with clients, family and health teams to ensure delivery of safe, effective care*
- *Apply a statistical software package to perform [specific] statistical tests*
- *Evaluate new technologies and information management systems relevant to [profession]*
- *Identify ways to use information technology to simplify work processes and record innovation*



Graduate Attribute 6: Learning how to learn

Graduates must be self-directed learners, needing little extrinsic motivation to accept responsibility for planning and monitoring their own learning. Students may acquire this in stages: at a preliminary level students might be aware of their own learning and learning preferences, personal goal setting and performance monitoring. At more advanced levels, they focus on self-directed learning as well as managing and evaluating the performance of peers and teams through meaningful contributions to group work.

For example, successful students in this unit can:

- *Set personal learning goals and reflect on progress*
- *Propose, test and evaluate new ideas [or ways of working]*
- *Reflect on the development of skills [professional practice]*
- *Evaluate the performance of a group or team*
- *Evaluate performance of self or others against agreed criteria*
- *[Describe, explain, apply, analyse, synthesise or evaluate] recent developments in [the field or discipline]*
- *Assess limitations of knowledge, skills or abilities*



Graduate Attribute 7: International perspective

Graduates must know the place of their discipline in the international arena and should also have a sound understanding of the way knowledge and the professions are applied in varying geographical contexts. This means knowing how the environment, local communities or national interests are involved or affected by issues related to their discipline; and practices or actions that have international impact – from business opportunities, ventures or practices, developmental or aid programs, transnational research programs, and from the perspectives of ethical or social impact or sustainability.

For example, successful students in this unit can:

- *Describe historical development of [the discipline] over time and borders*
- *Explain the contribution of international figures in the development of [the discipline]*
- *Describe the strategic liaisons that [the home country] has with other countries in relation to development or products of [the discipline]*
- *Explain reasons for restrictions on movement of people, money, ideas or products across boundaries*
- *Locate relevant literature or information from international sources*
- *Compare systems, practices, policies, law in different countries*
- *Evaluate the impact of cross-national business, mining or development*
- *Analysis the sustainability of resource development in another location*
- *Compare and contrast ways of practicing [the discipline] in different countries*
- *Evaluate overseas markets for local products*



Graduate Attribute 8: Cultural understanding

Graduates must have an awareness of cultural and human diversity and how the practices of the discipline impact on that diversity. These attributes mean having the knowledge, skills, and attitudes to care and provide for all people, including Indigenous Australians and others of diverse cultural backgrounds. It includes understanding and valuing diversity of language, beliefs, norms, values, and socioeconomic and political factors.

For example, successful students in this unit can:

- *Illustrate how one's own culture affects perceptions, thinking, assumptions and expectations*
- *Justify appropriate behaviours for specific cross-cultural scenarios*
- *Identify the impact of ethics, equity and social justice guidelines on the operation of [a business or research programme]*
- *Interpret phenomena from the perspective of minority cultures*
- *Design culturally appropriate methods for collecting data (in surveys or interviews)*



Graduate Attribute 9: Professional skills

This attribute is closely aligned to employability skills as well as specific professional attributes. Employability skills include those which are necessary to gain employment; facilitate success; progress within an organisation; and the capacity to contribute to the organisation's goals. Excellent personal, interpersonal, self-management and leadership skills are particularly important in this area.

For example, successful students in this unit can:

- *Explain the impact of relevant codes of conduct to a given problem*
- *Comply with relevant State, Territory & Commonwealth legislative and common law requirements and relevant Codes of Conduct and standards in the workplace*
- *Embed and follow principles of client rights within all areas of practice*
- *Recommend [discipline] services within an ethical framework*
- *Manage and complete a project on time, within budget, using appropriate resources to achieve agreed quality standards*
- *Re-order competing priorities to achieve specified [discipline] outcomes*
- *Recommend appropriate resource allocation to achieve [an outcome]*
- *Establish and sustain cooperative team relationships throughout a project*
- *Provide effective feedback to managers, co-workers and clients*
- *Appraise a peer and provide appropriate feedback*