

Writing Course Learning Outcomes

Learning outcomes describe what students will know and be able to do upon successful completion of a program or course.

Course learning outcomes are a central aspect of the University's contract with students with respect to their academic achievement. They are the basis for all learning activity and they communicate very specific expectations to students about what they will learn and what will be assessed. The focus is on student achievement and how this will be demonstrated in assessment rather than generalised descriptions of teaching activity or learning experiences.

In what is known as constructive alignment (Biggs & Tang, 2007), course learning outcomes, teaching and learning activities, and assessment relate to each other as indicated in Figure 1.

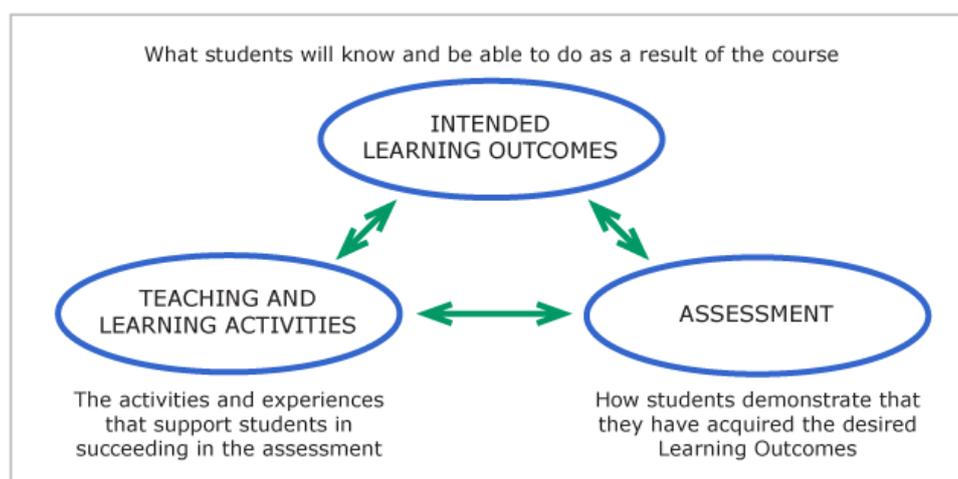


Figure 1 Constructive alignment

Features of Course Learning Outcomes

Course learning outcomes are shaped by the:

- role the course plays in the developmental learning experiences within the program through specific knowledge, skills and application of knowledge and skills
- contribution the course makes to program learning outcomes, including accreditation requirements, graduate attributes, Tertiary Education Quality Standards Agency (TEQSA) requirements, threshold learning outcomes, etc.
- nature of the assessment tasks and the teaching and learning activities and experiences that support students in succeeding in the assessment.

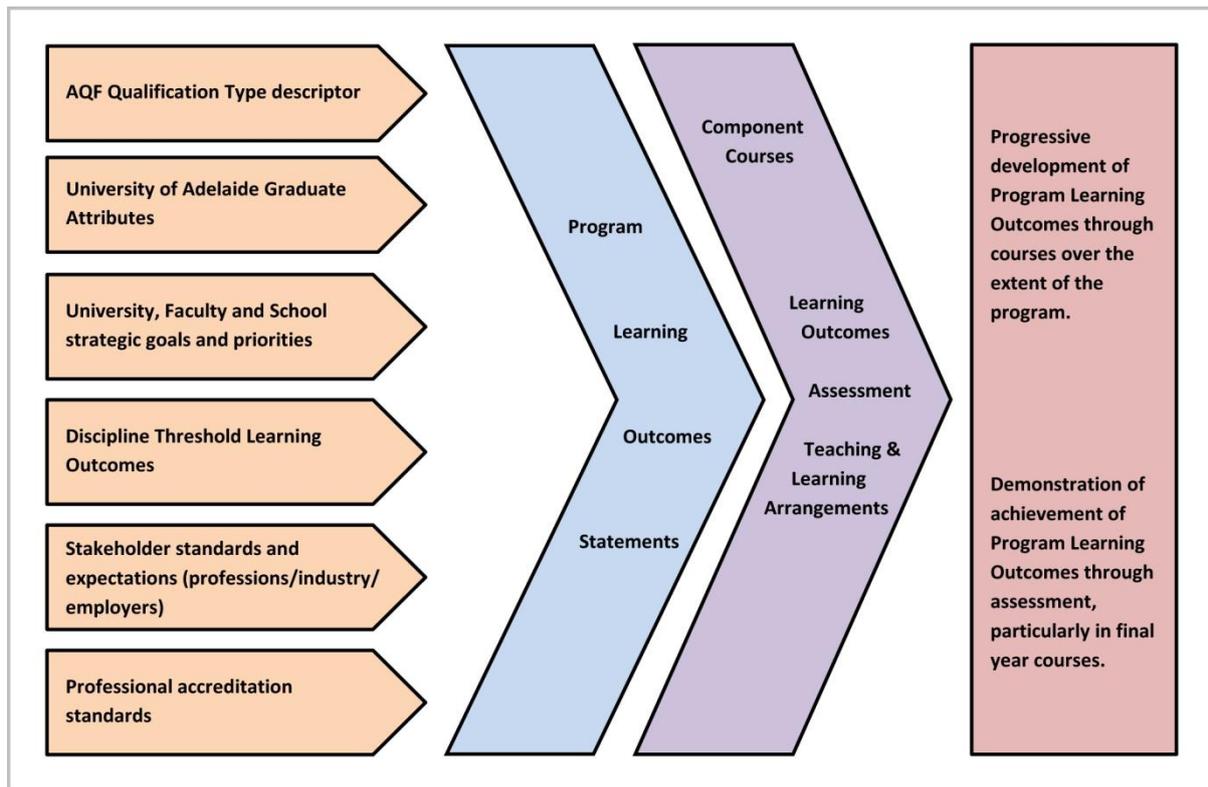


Figure 2 Relationship between Program and Course Learning Outcomes (remove title in Figure2)

Course learning outcomes have particular characteristics. They:

- define the scope of the course
- use language that is comprehensible to students and prospective students before they undertake the course
- identify what 'typical' students will know and be able to do on successful completion of the course
- are measurable, realistic and achievable within the context and timeframe
- are inextricably linked to the learning outcomes of programs
- are demonstrated through assessment
- are supported through teaching and learning activity.

Meeting TEQSA requirements

All university programs must meet the Australian Government requirements as identified in the TEQSA [Threshold Standards](#) which describe the broad parameters for quality program design at various qualification levels as outlined in the [Australian Qualifications Framework](#) AQF.

Within the AQF Qualification Type Descriptors, program learning outcomes (and, therefore, Course Learning Outcomes) include knowledge, skills, and the application of that knowledge and skills which are defined as follows:

Knowledge is what a graduate knows and understands. It is described in terms of depth, breadth, kinds of knowledge and complexity, as follows:

- depth of knowledge can be general or specialised
- breadth of knowledge can range from a single topic to multi-disciplinary area of knowledge
- kinds of knowledge range from concrete to abstract, from segmented to cumulative
- complexity of knowledge refers to the combination of kinds, depth and breadth of knowledge.

Skills are what a graduate can do. Skills are described in terms of the kinds and complexity of skills and include:

- cognitive and creative skills involving the use of intuitive, logical and critical thinking
- technical skills involving dexterity and the use of methods, materials, tools and instruments
- communication skills involving written, oral, literacy and numeracy skills
- interpersonal skills and generic skills.

Application of knowledge and skills is the context in which a graduate applies knowledge and skills. Specifically:

- application is expressed in terms of autonomy, responsibility and accountability
- the context may range from the predictable to the unpredictable, and the known to the unknown, while tasks may range from routine to non-routine.

Constructing Course Learning Outcomes

Integrity of Programs through Constituent Courses

Although programs provide the broad conceptual framework of learning and teaching, programs are only experienced by both staff and students through their constituent courses. Furthermore, programs are not aggregations of loosely linked courses; rather courses are the realisation of programs. For students to experience programs that are coherent, rigorous and developmentally sound, courses need to be specifically crafted to progressively introduce discipline content and skills of developing complexity, increasing intellectual demands and greater academic independence.

A constituent course can only be understood in the context of its associated courses and, in particular, its place in the developmental sequence of learning which results in the achievement of program learning outcomes.

Course learning outcomes, therefore, cannot be developed in isolation from other courses or from the overall program. This requires mapping the various components of the curriculum and their developmental sequences across the program.

Minimum Standards

The course learning outcomes identify the minimum achievement required for success in the course. Assessment rubrics make provision for a range of attainment but pass levels should be tied to the course learning outcomes statements. The sum of the course learning outcomes of constituent courses should be equal to the program learning outcomes. In determining the minimum level of achievement required for a course, consideration should be given to the attainment levels of students entering the course as well as the level of assumed knowledge required for subsequent courses. This interlocking set of outcomes provides a progressive and systematic approach to the discipline and enhances student learning.

Effective course learning outcomes are written using the following structure:

Stem	a leading statement in the future tense, highlighting that the following actions are expected to be achieved by students by the end of the period of study
Active verb	indicating specifically what you want students to know, consider or do
Focus / Object	indicating the process, product or outcome of the action such as 'theories', 'research plan' and 'principles of ethical research'
Context/Condition/Qualifier (optional)	indicating any conditions that may apply such as '...using the appropriate referencing system', '...as identified in ..', and '...relevant to...'

Some examples of effective course learning outcomes

On successful completion of this course students will be able to:

*...**design, create and use** a **mechanical device** which can perform a routine, specified function and that meets Australian and New Zealand standards.*

*...**prepare and present** a **legal argument to support a defence based on available and valid evidence, with reference to contemporary common law precedents for a specified case study.***

*...**review and critique** a **performance art work, with reference to contemporary theory of artistic criticism.***

Bloom's Taxonomy

In learning outcomes statements, verbs are a critical indicator of the nature of the required student engagement. In higher education, the expectation is that students will be pursuing increasingly more complex cognitive activity and function throughout their program of study and as they progress through higher qualifications.

The AQF recognises this progression across the range of awards through its specifications which need to be reflected in program and course learning outcomes and assessment. The AQF specifications for all awards can be found at <http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF-2nd-Edition-January-2013.pdf>.

Bloom's Taxonomy is a useful resource for writing learning outcomes. It provides a list of verbs with increasing levels of complexity in cognitive activity and function. These can be used to identify the nature of student learning activity.

Verbs using Bloom's Taxonomy	
Knowledge	recall, record, list, reproduce, arrange, memorise, define, outline, state, recognise, relate, describe, identify, show, examine, present, quote, name, duplicate, tabulate.
Comprehension	restate, discuss, clarify, locate, recognise, classify, translate, explain, express, review, interpret, select, summarise, contrast, predict, associate, estimate, extend.
Application	demonstrate, schedule, operate, dramatise, apply, employ, use, practise, illustrate, choose, solve, write, calculate, complete, show, examine, modify, relate, classify, experiment.
Analysis	distinguish, differentiate, investigate, categorise, appraise, inspect, test, debate, compare, contrast, question, criticise, solve, analyse, separate, order, connect, explain, calculate, relate.
Synthesis	compose, assemble, organise, plan, collect, propose, construct, design, create, formulate, arrange, devise, modify, derive, develop, integrate, rearrange, substitute, invent, generalise.
Evaluation	judge, score, select, evaluate, choose, rate, assess, compare, estimate, value, measure, discriminate, argue, defend, support, recommend, conclude, summarise, appraise, revise.

Key Questions

When writing course learning outcomes you might find it useful to keep in mind the following key questions.

- Does this course have a particular function within the major (eg core, SGDE, Level I, capstone) and, if so, what expectations/constraints/opportunities does this function bring with it?
- What is the main contribution this course makes to the major?
- Do the course learning outcomes focus on what the student will know or do on the successful completion of the course?
- Do the course learning outcomes accurately represent your perspective of this course?
- Are the emphases indicated in the course learning outcomes consistent with the emphases experienced by students in the course through lectures, workshops, clinical work, etc.?
- Do the course learning outcomes represent the overall emphases of the course as identified in the assessment?
- Do the course learning outcomes identify the minimum requirements to pass the course?
- How does this course contribute to the overall program learning outcomes?
- Where does this course fit in the learning sequence of content, skills and the application of the content and skills across the program?
- Is the course a final year/capstone that links to program learning outcomes?
- What academic content and skills are introduced?

- What academic skills and content are reinforced?
- What other course outcomes impact on this course?
- What other courses are impacted by the outcomes of this course?
- Does the course need to demonstrate achievement of skills and content for accreditation/registration purposes?
- Do the course learning outcomes make reference to the assessment and the teaching and learning processes?
- Do the course learning outcomes make reference to a broad range of student outcomes beyond content, as indicated in the University's graduate attributes?
- Are the course learning outcomes consistent with the requirements of the Australian Qualifications Framework?
- Are the course learning outcomes expressed in terms of the following?
 - **stem** – in future tense: 'On the completion of this course students will be able to:'
 - **active verb** – indicating the nature of the student activity—specifically what you want them to know, consider or do—typically expressed in verbs such as 'understand', 'synthesise', 'write', 'debate' and 'differentiate'
 - **focus** – indicating the process, product or outcome of the action such as 'theories', 'research plan' and 'principles of ethical research'
 - **condition** – (optional) indicating any conditions that may apply such as '...using the appropriate referencing system', '...as identified in ..', and '...relevant to...'