**Guidelines for Writing Aims and Intended Learning Outcomes at the Programme and Course level**

It may be helpful to read this document in conjunction with the Guide to the University’s Code of Assessment, which is available at http://senate.gla.ac.uk/academic/assessment/index.html. Whereas this document aims to provide basic guidelines on the writing of aims and intended learning outcomes (ILOs), the Guide to the Code of Assessment provides a more detailed rationale for why, in the light of the new Code of Assessment, it is important to get the expression of aims and ILOs right.

**Definitions**

Aims are the broad intentions and orientation of the course or programme of study, i.e. what the teacher plans to do for the students and how.

Intended learning outcomes (ILOs) carry a more specific meaning. They describe what the students should be able to do or demonstrate, in terms of particular knowledge, skills and attitudes, by the end of the course.

For example:

**Aims**
The aim of this programme/course/module is:

- to give participants the confidence and skills to apply basic principles of adult learning in different contexts (DACE, PGDip/MSc)
- to encourage the acquisition of general scientific skills relating to the systematic assembly, critical analysis, interpretation and discussion of factual information and data (IBLS, Level 2)
- to offer you a fresh and stimulating approach to the major forces instrumental in the shaping of politics, society and culture in Europe (History, level 1)

**Intended Learning Outcomes**
By the end of this programme students will be able to:

- evaluate practical solutions to problems that most educators of adults are likely to encounter in their practice (DACE, PGDip/MSc)
- apply the principles of transmission genetics to a haploid organism, and describe the role of meiosis in the life cycle (IBLS, level 2)
- make valid comparisons between different parts of Europe and across different historical periods, on the basis of sound historical evidence (History, level 1)
Educational rationale for this approach

The main rationale for this approach is that it shifts the focus from teaching to learning, by making what you intend your students to learn explicit.

The more you are able to make ILOs explicit, the more you are able to design assessment tasks and strategies that are most likely to enable your students to demonstrate to you and to themselves their achievement in relation to these outcomes. This explicitness also allows you to consider what learning processes and teaching methods are most likely to help your students to learn and achieve the outcomes you intend for them through the programme of study.

This process of making your aims and ILOs explicit, and using this to align your assessment and learning and teaching methods, is referred to as ‘constructive alignment’. Biggs (1996, 1999) provides a detailed rationale for this approach. The Cowan and Harding model of course design summarises the central role of aims and ILOs in driving the course design process (see below).

This approach helps students to:

- Determine what they are meant to be achieving
- Monitor their own progress towards this
- Be able to take greater control over their own learning and thus become more self-directing as learners

And teachers to:

- Improve assessment methods in such a way that they really do help students to demonstrate achievement of ILOs
- Assess students’ progress towards achievement of ILOs
- Give students feedback on their progress
- Select students most likely to achieve the programme’s ILOs
- Select what to teach and the best order in which to teach it
- Choose the most appropriate teaching methods and learning tasks
- Evaluate/review programme design

A further rationale is provided by the fact that the University’s new Code of Assessment is based on the extent to which students can demonstrate achievement of Programme and Course ILOs:

“Course ILOs are intended to be those in respect of which it is reasonable to claim that all students have been assessed.” Guide to Code of Assessment, p. 3.

This means that it is essential that Programme and Course ILOs are expressed clearly and in such a way that they can be assessed. It also means that assessment strategies and tasks have to be such that they clearly allow all students to demonstrate to the best of their abilities their achievement of the ILOs.
The Cowan and Harding model (1986)
**Identifying ILOs**
Consider what knowledge, understanding and skills you want your students to learn. Ask yourself the following questions:

- What do I want them to know and be able to do by the end of this course?
- How will they be able to use this learning? Doing what? In what contexts?
- What level am I aiming for?
- What will my students need to do in order to demonstrate if and how well they have achieved these outcomes?
- If someone were to ask your students what they have learnt in your class, how would you like them to answer? This can give you a good indication of what you are hoping they will learn.

Subject Benchmark Statements and the Scottish Credit and Qualifications Framework offer indicators of knowledge, understanding and skills that would generally be expected in different subjects and at different levels (see [http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp](http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp) and [http://www.scqf.org.uk/](http://www.scqf.org.uk/) respectively).

According to the QAA Programme Approval, Monitoring and Review Code of Practice, level is described as ‘an indicator of the relative demand, complexity, depth of study and learner autonomy involved in a programme’.

Subject Benchmark Statements express student attainment in the discipline in terms of subject knowledge and understanding, discipline specific skills and transferable skills. Both discipline specific and transferable skills may also sometimes be referred to as intellectual/thinking skills, practical, or professional skills. Transferable skills are sometimes also referred to as key skills.

Discipline specific skills are those which are needed in the pursuit of the particular degree being followed. They may well be the skills necessary to demonstrate knowledge and understanding.

An example for Civil Engineering could be *able to perform a Form Function & Environment Analysis to determine the necessary properties for the materials of a given structural design*, and for Sociology might be *able to relate classical sociological analysis to contemporary issues*.

A transferable or key skill is one which is recognised as having applicability beyond the confines of a particular academic subject. These include capabilities such as teamwork, time management, problem solving, communication skills etc.
**Writing ILOs**
Express ILOs using an active verb (what students will be able to do) + object + a qualifying phrase to provide a context.

For example

- evaluate practical solutions to problems that most educators of adults are likely to encounter in their practice (DACE, PGDip/MSc).
- apply the principles of transmission genetics to a haploid organism, and describe the role of meiosis in the life cycle (IBLS, level 2)

<table>
<thead>
<tr>
<th>Active verb</th>
<th>Object</th>
<th>Qualifying phrase</th>
</tr>
</thead>
<tbody>
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<td>Evaluate</td>
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<td>to problems that most educators of adults are likely to encounter in their practice</td>
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Try to avoid using verbs like ‘understand’ or ‘appreciate’. Ask yourself what your students will be able to do if they understand x and try to express this in the learning outcome.

The rationale for this is clearly stated in the University’s General Guidelines on the Code of Assessment (p. 4).

*“The ILOs must be expressed in operational terms – that is, the ILOs must express what candidates should be able to demonstrate that they can do. This does not deprecate the significance of knowledge and understanding, nor reduce these to mere task performance. It merely acknowledges that the possession of knowledge or understanding is beyond direct observation and that an inference is required, based on evidence presented by way of some particular action on the part of the candidate. The ILOs should communicate the actions expected of candidates.”*

Table 1 is based on Bloom's Taxonomy of cognitive learning and provides ways of describing outcomes at different levels of knowing and understanding. This taxonomy provides a potential vocabulary for articulating different kinds and level of outcome.
Class Description of Class Cue Words in problem Statement Example:
1. Knowledge Knowledge of terminology, facts; Conventions, trends & sequences; classifications, criteria, methodology; Theories, principles Write; State; Recall; Recognise; Select; reproduce; List. State Newton’s 2nd Law?
2. Comprehension The ability to translate, interpret and extrapolate knowledge. Identify; Illustrate; represent; Formulate; Explain; Contrast; Paraphrase; Summarise. Illustrate the relationship between strength and w/c ratio.
3. Application The use of theories, principles and ideas in particular & concrete situations. Predict; Select; Assess; Find; Show; Use; Construct; Compute; Solve. Using the stiffness method calculate .......
4. Analysis Identify relationships, omissions, parts, organisational structure, unstated assumptions; Distinguish fact from opinion, conclusions from evidence; recognise relevancy for the validation of a judgement; detect errors in logic; Distinguish cause and effect. Select; Compare; Separate; Differeniate; Contrast; Break down; Classify An elevator descends at acceleration ‘g’. A passenger attempts to throw a ball up. What happens?
5. Synthesis Put material together to form a new whole. Production of unique communication, plan or hypothesis. Ability to satisfy criteria. Summarise; Argue; relate; Précis; Organise; Generalise; Conclude; Design Design a single concrete mix suitable for an outfall which crosses the beach before entering the sea. Is this design suitable for its intended purpose?
6. Evaluation Quantitative & Qualitative judgements about the extent to which material & methods satisfy criteria. Comparison of major theories. Evaluation of accuracy of communication using evidence such as consistency or logic. Judge; Evaluate; Support; Conclude; Avoid; Select; Recognise; Criticise.

Table I: Active verbs based on Bloom’s Taxonomy of Cognitive Learning

References


