

Aims and Intended Learning Outcomes (ILOs)¹

Definitions

Aims are the broad intentions and orientation of the course or programme of study. In other words they express what the programme/course offers students.

In this section:

- [What are aims?](#)
- [What is an ILO?](#)
- [Key questions for guidance](#)
- [How to write an ILO](#)
- [List of active verbs](#)
- [Resources](#)
- [Where do I get further help?](#)

Here are several examples taken from different disciplines:

The aim of this programme/course is to provide participants with the opportunity to develop confidence and skills to apply basic principles of adult learning in different contexts (Education).

This course aims to encourage the acquisition of general scientific skills relating to the systematic assembly, critical analysis, interpretation and discussion of factual information and data (Biological sciences).

This course aims to offer a fresh and stimulating approach to the major forces instrumental in the shaping of politics, society and culture in Europe (History).

Intended learning outcomes 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 programme/course.

For example:

By the end of this programme/course students will be able to:

- evaluate practical solutions to problems that most educators of adults are likely to encounter in their practice (Education);
- apply the principles of transmission genetics to a haploid organism, and describe the role of meiosis in the life cycle (Biological sciences);
- make valid comparisons between different parts of Europe and across different historical periods on the basis of sound historical evidence (History).

Identifying aims and ILOs

When identifying aims and ILOs, consider what knowledge, understanding and skills you intend students to learn through the programme/course. The following questions may help with this:

- What do you want students to know and be able to do by the end of this programme/course?

¹ This section is adapted from Mann, S.J. (2004) *Guidelines for Writing Aims and Intended Learning Outcomes at the Programme and Course level* (see resources at the end of this document for the web-link).

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

Course ILOs need to reflect the level at which they are aimed, in other words at level 1, level 2, Honours, or taught Masters. [Subject Benchmark Statements](#) and the [Scottish Credit and Qualifications Framework \(SCQF\)](#) offer indicators of knowledge, understanding and skills that would generally be expected in different subjects and at different²

According to the [QAA Programme Approval, Monitoring and Review Code of Practice](#), level is 'an indicator of the relative demand, complexity, depth of study and learner autonomy involved in a Programme'. [The level descriptors in the SCQF](#) are meant to represent a generic understanding of what would be expected as a normal level of achievement at this level. They address the following five areas:

- knowledge and understanding (mainly subject based)
- practice (applied knowledge and understanding)
- generic cognitive skills (e.g. evaluation, critical analysis)
- communication, numeracy and IT skills
- autonomy, accountability and working with others

Subject Benchmark Statements on the other hand express student attainment in the discipline in terms of subject knowledge and understanding (including as appropriate applied 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 is 'able to perform a Form Function & Environment Analysis to determine the necessary properties for the materials of a given structural design'. An example for Sociology is 'the ability to relate classical sociological analysis to contemporary issues'.

² In October 2006, Scotland became one of two out of a total of 45 countries who have committed to the Bologna process and to verify that its national higher education framework is compatible with that of the European Higher Education Area (EHEA). For information on this go to <http://www.qaa.ac.uk/academicinfrastructure/FHEQ/SCQF/SelfCertification2007.asp>

A transferable or key skill is one which is recognized as having applicability beyond the confines of a particular academic subject. These include skills such as teamwork, time management, problem solving, and communication skills.

If your programme or course has a professional orientation, you will also need to refer to any relevant professional, statutory and regulatory bodies (PSRBs).

Writing ILOs

It is helpful to express ILOs using an active verb (what students will be able to do) + object + a qualifying phrase to provide a context.

Table 1: Writing ILOs

Active verb	Object	Qualifying phrase
Evaluate	practical solutions	to problems that most educators of adults are likely to encounter in their practice
Apply	the principles of transmission genetics	to a haploid organism
Describe	the role of meiosis	in the life cycle

Try to avoid using verbs like 'understand' or 'appreciate' or 'be familiar with'. Instead, ask yourself what your students will be able to do if they understand 'x' and try to express this in the learning outcome. ILOs must express in operational terms what candidates should be able to demonstrate they can do for the purposes of assessment. This approach does not diminish the significance of knowledge and understanding in favour of mere task performance, but rather acknowledges that the possession of knowledge or understanding is beyond direct observation. An inference based on evidence presented by way of some particular action is therefore required: it is this action which an ILO must seek to communicate.

Table 2 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.

Table 2: Active verbs based on Bloom's Taxonomy of Cognitive Learning (1956)

Class	Description of class	Cue words
Knowledge	Terminology, facts, conventions, trends & sequences Classifications, criteria, methodology Theories, principles	Write State Recall Recognize Select Reproduce List
Comprehension	The ability to translate, interpret and extrapolate knowledge.	Identify Illustrate Represent Formulate Explain Contrast Paraphrase Summarize
Application	The use of theories, principles and ideas in particular and concrete situations.	Predict Select Assess Find Show Use Construct Compute Solve
Analysis	The ability to identify relationships, omissions, parts, organizational structure, unstated assumptions To distinguish fact from opinion, conclusions from evidence Recognize relevancy for the validation of a judgement Detect errors in logic. Distinguish cause and effect.	Select Compare Separate Differentiate Contrast Break down Classify
Synthesis	Put material together to form a new whole Production of unique communication, plan or hypothesis	Summarize Argue Relate Précis Organize Generalize Conclude Design
Evaluation	Quantitative and qualitative judgements about the extent to which material and 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 Recognize Criticize.

Resources

(Please click on the link below or copy and paste the link into an already open browser window)

Mann, S.J. (2004) Guidelines for Writing Aims and Intended Learning Outcomes at the Programme and Course level
http://www.gla.ac.uk/media/media_105307_en.pdf

Subject Benchmark Statements
<http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp>

Scottish Credit and Qualifications Framework (SCQF)
<http://www.scqf.org.uk/>

QAA Programme Approval, Monitoring and Review Code of Practice
<http://www.qaa.ac.uk/academicinfrastructure/codeOfPractice/section7/programmedesign.pdf>

The level descriptors in the SCQF
<http://www.gla.ac.uk/services/senateoffice/qaa/progdesignapproval/scottishcreditandqualificationsframework/scqfleveledescriptors/>

Further help

For further support please contact your Academic Development Unit College
 Contact as follows:

	Contact	Email	Extension
Arts	Dr Vicky Gunn	Victoria.Gunn@glasgow.ac.uk	3890
Medical, Veterinary and Biomedical Sciences	Dr Catherine Bovill	Catherine.Bovill@glasgow.ac.uk	4997
Science and Engineering	Dr. Mary McCulloch	Mary.McCulloch@glasgow.ac.uk	3356
Social Sciences	Dr Velda McCune	Velda.McCune@glasgow.ac.uk	3197

A step by step guide to programme and course design and review is available at
<http://www.gla.ac.uk/services/learningteaching/goodpracticeresources/designingprogrammesandcourses/>