**Short guide to writing intended learning outcomes for courses**

When designing a course, many people start by considering *what* will be taught in a course. However, a more effective approach to course design considers how different elements of a course can be better aligned and starts by considering course aims. Therefore, start by stating your (1) aims or course summary, (2) intended learning outcomes (ILOs), (3) assessments and (4) learning and teaching methods. This guide focuses on (2).

ILOs describe what a student should be able to do by the end of a course. Students will be assessed on whether they can demonstrate the ILOs and therefore they must be stated specifically and clearly. They should address one or more of the five characteristics of learning outlined in the principles of the Scottish Credit and Qualifications Framework (SCQF) at the appropriate SCQF Level:

1. Knowledge and Understanding
2. Practice: Applied Knowledge, Skills and Understanding
3. Generic Cognitive Skills
4. Communication, ICT and Numeracy Skills
5. Autonomy, Accountability and Working with others

The ILOs should be achievable but require increased levels of knowledge, practice, skills, communication and autonomy as the students’ level of study increases.

ILOs are expressed using a stem (that gives a time limitation) followed by a statement that begins with an active verb (outlining what students will be able to demonstrate) + object (what is to be learned) + a qualifying phrase (that provides the context and degree of mastery expected).

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| **Example 1 (UG) Modern East Asian History**  On completion of this course, the student will be able to:   * Critically situate current social, political and cultural developments in Japan within their historical context |

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| **Example 2 (UG) Introduction to Linear Algebra**  On completion of this course, the student will be able to:   * Perform accurate and efficient calculations with vectors, matrices, eigenvalues and eigenvectors in arbitrary dimensions |

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| **Example 3 (PG) Research in Clinical Education (online)**  On completion of this course, the student will be able to:   * Critically appraise published clinical education literature and research |

**Things to consider when writing aims and ILOs:**

* What knowledge, skills, values and attributes will your students bring to the course?
* What knowledge, skills, values and attributes do you want them to develop?
* What will students need to do to demonstrate that they have achieved the ILOs?
* It is important to ensure that course ILOs are consistent with, and contribute towards, programme ILOs (which are usually not directly assessed).
* Try to avoid using verbs such as *understand, appreciate, be familiar with,* and *know* in ILOs as these verbs do not clearly indicate what level of understanding or knowledge a student must demonstrate in an assessment. See Blooms taxonomy below to illustrate different levels of knowledge and understanding.
* It is fine to use the same active verb more than once in the ILOs for a course if it is expressing what you want students to be able to achieve.
* ILOs will be used by both staff and students, and should help to ensure clarity about the purposes and intended outcomes of courses.
* The [EUCLID system, where you submit a new course or a redesigned course](https://www.ed.ac.uk/student-systems/support-guidance/admin-support-staff/programme-course-maintenance/course-creation-approval-maintenance), will prompt you for 1-5 ILOs based on the 5 SCQF characteristics of learning.

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| **Try not to proliferate unnecessary ILOs - EXAMPLE**  Rather than writing:  ‘On completion of this course, the student will be able to:   * recognise the symptoms and devise an appropriate treatment plan for pneumonia * recognise the symptoms and devise an appropriate treatment plan for emphysema * recognise the symptoms and devise an appropriate treatment plan for acute bronchitis’   …consider writing:  By the end of this course you will be able to:   * recognize the symptoms and devise an appropriate treatment plan for a range of respiratory conditions (see Appendix A)   Then list the different respiratory conditions in Appendix A that you expect your students to recognise and be able to treat and any of which they may be assessed on. |

**Blooms Taxonomy**

(Bloom et al, 1956)

**Active verbs for different levels of Bloom’s Taxonomy**

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|  |  |  |  |  | **Evaluation** |
|  |  |  |  |  | judge | |
|  |  |  |  |  | appraise | |
|  |  |  |  |  | evaluate | |
|  |  |  |  | **Synthesis** | rate | |
|  |  |  |  | compose | compare | |
|  |  |  |  | plan | revise | |
|  |  |  |  | propose | assess | |
|  |  |  | **Analysis** | design | estimate | |
|  |  |  | distinguish | formulate |  | |
|  |  |  | analyse | arrange |  | |
|  |  |  | differentiate | assemble |  | |
|  |  | **Application** | appraise | collect |  | |
|  |  | interpret | calculate | construct |  | |
|  |  | apply | experiment | create |  | |
|  |  | employ | test | set up |  | |
|  | **Comprehension** | use | compare | organise |  | |
|  | translate | demonstrate | contrast | manage |  | |
|  | restate | dramatise | criticise | prepare |  | |
|  | discuss | practice | diagram |  |  | |
| **Knowledge** | describe | illustrate | inspect |  |  | |
| define | recognise | operate | debate |  |  | |
| repeat | explain | schedule | question |  |  | |
| record | express | sketch | relate |  |  | |
| list | identify |  | solve |  |  | |
| recall | locate |  | examine |  |  | |
| name | report |  | categorise |  |  | |
| relate | review |  |  |  |  | |
| underline | tell |  |  |  |  | |

**Other sources of information and help:**

QAA Subject benchmark statements – set out expectations and standards of degrees in the different disciplines:

<http://www.qaa.ac.uk/assuringstandardsandquality/subject-guidance/pages/subject-benchmark-statements.aspx>

The SCQF framework:

<http://scqf.org.uk/the-framework/about-the-framework/>

**References**

Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H., Krathwohl, D.R. (1956) *Taxonomy of educational objectives: The classification of educational goals*. Handbook I: Cognitive domain. New York: David McKay Company. Also see Atherton, J.S. (2013) *Learning and Teaching; Bloom's taxonomy:* <http://www.learningandteaching.info/learning/bloomtax.htm>

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