

FOCUS ON: LEARNING DESIGN

LEARNING OUTCOMES



WHAT ARE LEARNING OUTCOMES?

Learning outcomes establish the foundation for your learning design and outline the skills and knowledge your learners are expected to have acquired upon successfully completing their studies.

Programme learning outcomes (PLOs) indicate the entire programme expectations for learner development and can be used to inform module learning outcomes (MLOs) that are more specific to areas of study, assessment, and teaching and learning activity. [Aligning your PLOs, MLOs and assessment](#) are a crucial component of designing programmes and modules.

PROGRAMME LEARNING OUTCOMES

PLOs should be an explicit description of what students should know, understand and be able to do as a result of learning in the context of a particular programme. They offer a destination and explicit goals for learning, indicate the level of learning required to pass, and help design teams select appropriate teaching, learning and assessment strategies. PLOs form an integral component of [Programme Specifications](#).

How many PLOs does my programme need?

Given PLOs will necessarily be high level statements of intent, we recommend the following number of PLOs:

- **10-12 for UG** single and joint/combined programmes
- **6-8 for PGT** programmes

How should I distribute PLOs for a joint/combined programme?

The expectation is that there will be PLOs that relate to discipline-specific knowledge, skills and attributes and some PLOs which are shared by the two subjects.

- These shared PLOs may articulate interdisciplinary skills and attributes and/or where there are overlaps in skills and attributes between disciplines.

How can I include competencies from accrediting or regulating bodies?

Some professional, statutory and regulatory bodies stipulate numerous professional competencies / outcomes. We recommend a pragmatic approach to representing these within the recommended number of PLOs (e.g., grouping professional competencies within a single PLO).

What PLOs must I include?

You must include a PLO that relates to the written and oral communication skills that students develop during their studies on your programme. For example:

- Communicate ideas in a logical way, both orally and written to specialist and non-specialist audiences.

You can include additional skills and discipline-specific context as part of the PLO.

What internal / external frameworks inform PLOs?

QAA Qualifications Frameworks

The Framework for Higher Education Qualifications of UK Degree-Awarding Bodies ([FHEQ](#)) outlines, in generic terms, what is expected at the various levels of programmes. The FHEQ plays an essential role in setting and maintaining academic standards across the sector. Therefore, alignment with the relevant FHEQ level must be the starting point for writing PLOs (i.e., Level 6 for UG and Level 7 for PGT). The University's [Credit and Qualifications Framework](#) is derived from the FHEQ.

UoR Curriculum Framework

The [Curriculum Framework](#) provides a starting point for thinking broadly about the knowledge, competencies, and skills we want our graduates to attain. The Framework articulates four Graduate Attributes (mastery of the discipline, skills in research and enquiry, personal effectiveness, and a global and future-facing outlook) that students should have as graduates from any programme at the University. These can be contextualised for your discipline and used to inform the PLOs and mapped to current PLOs to identify any overlaps or gaps.

WRITING PROGRAMME LEARNING OUTCOMES

PLOs are effective when they communicate clearly what knowledge, skills and attributes a student should expect to acquire during their programme.

Practical guidance for PLOs when writing Programme Specifications:

- Frame your PLOs as a list that begins with “**By the end of the programme it is expected that students will be able to...**”
- Begin with **active verbs** which states clearly what you expect students will know and be able to do.
- Combine the object of the verb with relevant context to help students understand the scale and scope of what is required.
- Avoid words like ‘know’, ‘understand’, ‘be aware of’, ‘appreciate’ which are difficult to quantify. Use [Bloom’s Taxonomy](#) as a guide for higher order active verbs.
- Write them at the threshold level for a pass, ensuring they are achievable and assessable.
- Relate to explicit criteria for assessing levels of achievement.
- Write in accessible, student-friendly language.
- Ensure they are consistent with the aims of the programme.

Examples (BA Board Games)

1. Design board games proficiently across multiple genres, including crafting engaging game mechanics, balanced rules, and compelling narratives.
2. Incorporate ethical and accessibility considerations into game design, including representation, inclusivity, and environmental sustainability.

MODULE LEARNING OUTCOMES

MLOs are **specific**, **measurable**, and **achievable** statements that unambiguously indicate what a student should know and be able to do as a result of undertaking learning in the module. They should be relevant to the discipline and [inclusive in scope](#) to ensure all students can achieve their potential. MLOs are an essential component of Module Descriptor Forms ([MDFs](#)).

MLOs should be **broad** enough to convey to students the **essential** learning for passing the module and be **assessable**. Therefore, they should be **realistic in number**.

How many MLOs should my module have?

A reasonable expectation is that:

- **20 credit modules** should have between **3-4** broad learning outcomes.
- **40 credit modules** should have between **4-5** broad learning outcomes.
- Modules of **more than 40 credits** should have a **maximum of 6** broad learning outcomes.

QAA Subject Benchmark Statements

The [QAA Subject Benchmark Statements](#) ‘Describe the nature of study and the academic standards expected of graduates in specific subject areas’ (QAA). They are available for UG and PGT programmes. Where a UG programme is multi-disciplinary or inter-disciplinary, there may be no benchmark statement of direct relevance. In such cases, more than one statement can be used as a source of reference. As external reference points benchmark statements are an essential part of assuring standards, but you should not transpose outcomes from benchmark statements. Instead, they should be used as a point of comparison to prompt reflection.

UoR marking criteria

The UoR generic marking criteria (Assessment Handbook, [Section 10: Annex 1 and 2](#)) are useful to prompt reflection on what is important for your discipline and inform PLOs. The UG marking criteria are organised around the following sub-headings:

- knowledge and understanding
- cognitive skills
- practical skills
- transferable skills

These sub-headings align with those used in current PLOs and are useful for categorising PLOs to identify any overlaps or gaps. You should use PLOs and the UoR marking criteria as the basis for writing assessment criteria for measuring students' performance at discipline level. These programme level assessment criteria can then be further contextualised at module or assessment level and used as a basis for feedback.

WRITING MODULE LEARNING OUTCOMES

MLOs are effective when they communicate clearly what knowledge, skills and attributes a student should expect to acquire during their module.

When writing your MDF, use the following stem phrase:

“By the end of the module, it is expected that students will be able to:”

You can use a bullet point or numbered list for the MLOs with:

1. An [active verb](#) or phrase.
2. An object of the verb.
3. A clause or phrase that provides the context or condition.

Active verb/phrase	Object	Context/condition
Evaluate	the relationship	between company directors and shareholders
Describe	the principles	of behaviourist psychology

There is a fine balance between too generic and overly specific MLOs. For example, consider the MLOs for a module entitled Reading Russian Literature.

By the end of the module, it is expected that students will be able to:

...appreciate Russian literature	...summarise <i>War and Peace</i> in a 2,000-word essay	...appraise character development in 19th century Russian literature
Too vague to be assessable and lacks reference to the skills you may want students to demonstrate.	Overly specific. Emphasis is on coverage of a specific text rather than the higher order skills you want students to demonstrate in their writing. Information regarding essay length is more suited to assignment brief. Restrictive in terms of module content and assessment method.	Strikes a good balance. Emphasis here is on analytical skills in the context of 19th century Russian literature. Provides flexibility in terms of text(s) to be studied and assessment method. More obvious how this will enable mapping of modules to PLOs, inform the selection of appropriate teaching, learning and assessment methods, and be used as the basis to formulate assessment criteria.

EVALUATING YOUR LEARNING OUTCOMES

You can use some of the following questions to help articulate your PLOs, MLOs and to align teaching, learning and assessment.

- Is it clear what students are expected to do and the learning they need to demonstrate?
- Can students judge how much they are expected to do or know? Is the scope clear?
- How do students achieve the outcome? Consider the workload, resources and timescale involved.
- Is it relevant to the discipline, module, programme, and where appropriate is there application beyond the classroom?
- Can **all** students achieve the outcome? Is it written in student-friendly and accessible language?
- Is there a clear relationship between the PLOs, the MLOs, the T&L activities and the assessment?
- Do they state what skills, knowledge and attributes the students should learn?
- Are they written at the threshold level for a pass?

Relevant policies & procedures

For University **Guidelines and templates** for Programme Specifications and Module Descriptions see Section 5: *Programme Design and Development* of the [Quality Assurance and Policy website](#).

BLOOM'S TAXONOMY

The following table is taken from Bloom's Taxonomy. You are not limited to selecting from this table. Rather, it is meant to guide you in selecting useful verbs for writing PLOs and MLOs.

Remember	Understand	Apply	Analyse	Create	Evaluate
<i>Remember previously learned information.</i>	<i>Demonstrate an understanding of the facts.</i>	<i>Apply knowledge to actual situations.</i>	<i>Break down objects or ideas into simpler parts and find evidence to support generalisations.</i>	<i>Make and defend judgements based on internal evidence or external criteria.</i>	<i>Compile component ideas into a new whole or propose alternative solutions.</i>
Arrange	Classify	Apply	Analyse	Animate	Appraise
Define	Convert	Change	Appraise	Arrange	Argue
Describe	Defend	Choose	Audit	Assemble	Assess
Draw	Describe	Compute	Break down	Categorise	Attach
Duplicate	Discuss	Demonstrate	Calculate	Collect	Choose
Identify	Distinguish	Discover	Categorise	Combine	Compare
Label	Estimate	Dramatise	Compare	Compose	Conclude
List	Explain	Employ	Contrast	Construct	Contrast
Match	Express	Illustrate	Criticise	Create	Defend
Memorise	Extend	Interpret	Diagram	Design	Describe
Name	Generalise	Manipulate	Differentiate	Develop	Estimate
Order	Give examples	Modify	Discriminate	Devise	Evaluate
Outline	Identify	Operate	Distinguish	Explain	Explain
Recognise	Indicate	Practice	Examine	Formulate	Judge
Relate	Infer	Predict	Experiment	Generate	Justify
Recall	Locate	Prepare	Identify	Plan	Interpret
Repeat	Paraphrase	Produce	Illustrate	Prepare	Relate
Reproduce	Predict	Relate	Infer	Rearrange	Predict
Select	Recognise	Schedule	Model	Reconstruct	Rate
State	Rewrite	Show	Outline	Relate	Select
	Review	Sketch	Question	Reorganise	Summarise
	Select	Solve	Relate	Revise	Support
	Summarise	Use	Select	Rewrite	Value
	Translate	Write	Separate	Set up	
			Subdivide	Summarise	
			Test	Synthesise	
				Tell	
				Write	

NEXT STEPS

For help writing effective programme and module learning outcomes, please contact the Academic Development and Enhancement (ADE) team.

To contact us and explore other guides in our Focus On: series, please visit:
<https://www.reading.ac.uk/cqsd/teaching-resources>

