

Curriculum design

A curriculum is a planned sequence of learning experiences.

In designing a curriculum, whether for a whole degree programme or for a particular unit, you are planning an intellectual 'journey' for your students - a series of experiences that will result in them learning what you intend them to learn.

Typically these experiences will include attendance at lectures and classes, work in small groups, private study, preparing work for assessment and so on.

Curriculum design includes consideration of aims, intended learning outcomes, syllabus, learning and teaching methods, and assessment. Each of these elements is described below.

It also involves ensuring that the curriculum is accessible and inclusive, i.e. that students with disabilities, and from all backgrounds, can participate in it with an equal chance of success.

Guidance on these topics can be found in the 'Students with additional support needs' section of the Manual of Academic Procedures (MAP).

Aims

The aims of the curriculum are the reasons for undertaking the learning 'journey' - its overall purpose or rationale from the student's point of view.

For example, a degree programme may aim, among other things, to prepare students for employment in a particular profession. Likewise a unit within the programme may aim to provide an understanding of descriptive statistics. The stated aims of a curriculum tell students what the result of studying it is likely to be.

Note that the aims are the educational purposes of the curriculum. To attract more students to study may be one of your aims in offering the programme or unit, but it is not an aim of the curriculum you offer.

Further guidance on writing aims for programmes and units is available in the 'Guide to writing aims and intended learning outcomes' section of the MAP.

Intended Learning outcomes

Learning outcomes are what students will learn if they follow the curriculum successfully (i.e. if they complete the programme or unit and pass the assessment).

Sometimes the phrase 'intended learning outcomes' is used to refer to the anticipated fruits of completing the planned 'journey'.

In framing learning outcomes it is good practice to:

a) Express each outcome in terms of what successful students will be able to do. For example, rather than stating 'students will understand why....' say 'students will be able to summarise the main reasons why...' This helps students to focus on what you are expecting them to achieve and it assists you in devising appropriate assessment tasks (see below).

b) Include different kinds of outcome. The most common are cognitive objectives (learning facts, theories, formulae, principles etc.) and performance outcomes (learning how to carry out procedures, calculations and processes, which typically include gathering information and communicating results). In some contexts affective outcomes are important too (developing attitudes or values, e.g. those required for a particular profession).

Further guidance on writing intended learning outcomes, together with helpful examples, is available in the 'Guide to writing aims and intended learning outcomes' in the MAP.

Syllabus

This is the 'content' of the programme or unit; the topics, issues or subjects that will be covered as it proceeds. In selecting content for inclusion, you should bear the following principles in mind:

a) It should be relevant to the outcomes of the curriculum. An effective curriculum is purposive, clearly focused on the planned learning outcomes. The inclusion of irrelevant topics, however interesting in themselves, acts as a distraction and may confuse students.

b) It should be appropriate to the level of the programme or unit. An effective curriculum is progressive, leading students onward and building on what has gone before. Material which is too basic or too advanced for their current stage makes students either bored or baffled, and erodes their motivation to learn.

c) It should be up to date and, if possible, should reflect current research. In some disciplines it is difficult to achieve the latter until students reach postgraduate level, but in many it is possible for even first year undergraduates to be made aware of current research topics.

Sources of information on syllabus design:

Toohy S (1999) *Designing courses for higher education*, Society for Research into Higher Education/Open University Press, Buckingham

D'Andrea V (1999) 'Organising teaching and learning: outcomes-based planning' in Fry H, Ketteridge S and Marshall S (Eds), A

handbook for teaching and learning in higher education, Kogan Page, London, pp 41-57

Course design for resource based learning (multi-volume set in specific disciplines)

Preparing a course : practical strategies for teachers, lecturers and trainers / Ian Forsyth, Alan Jolliffe and David Stevens, Kogan Page, 1999

Race, P (2001) The lecturer's toolkit : a practical guide to learning, teaching & assessment, Second Edition, Kogan Page, London

Note: the literature is a little weak on syllabus construction. Discussion usually occurs in the wider context of course design.

Learning and teaching methods

These are the means by which students will engage with the syllabus, i.e. the kinds of learning experience that the curriculum will entail. Although they will include the teaching that students will experience (lectures, laboratory classes, fieldwork etc.) it is important to keep in mind that the overall emphasis should be on learning and the ways it can be helped to occur. For example:

a) Individual study is an important element in the university curriculum and should be planned with the same care as other forms of learning. In the undergraduate curriculum especially, it is good practice to suggest specific tasks, rather than relying entirely on students to decide how best to use their private study time.

b) Group learning is also important. Students learn from each other in ways that they cannot learn alone or from staff and the inclusion of group projects and activities can considerably enhance the curriculum.

c) Online learning is increasingly important in many curricula and needs to be planned carefully if it is to make an effective contribution. Online materials can be a valuable support for learning and can be designed to include helpful self-assessment tasks. (see below).

Sources of information on learning and teaching methods (other than the appropriate sections of the Manual of Academic Procedures):

Fry, H., Ketteridge, S and Marshall, S (1999) A Handbook for Teaching and Learning in Higher Education. Kogan Page, London

Laurillard, D (1993) Rethinking University Teaching: a Framework for the Effective Use of Educational Technology. Routledge. London.

Race, P and Brown, S (1998) The Lecturer's Toolkit. Kogan Page.

Ramsden, P (1992) Learning to Teach in Higher Education. Routledge. London.

Assessment

Learning occurs most effectively when a student receives feedback, i.e. when they receive information on what they have (and have not) already learned. The process by which this information is generated is assessment, and it has three main forms:

a) Self assessment, through which a student learns to monitor and evaluate their own learning. This should be a significant element in the curriculum because we aim to produce graduates who are appropriately reflective and self-critical.

b) Peer assessment, in which students provide feedback on each other's learning. This can be viewed as an extension of self assessment and presupposes trust and mutual respect. Research suggests that students can learn to judge each other's work as reliably as staff.

c) Tutor assessment, in which a member of staff or teaching assistant provides commentary and feedback on the student's work.

Assessment may be formative (providing feedback to help the student learn more) or summative (expressing a judgement on the student's achievement by reference to stated criteria).

Many assessment tasks involve an element of both, e.g. an assignment that is marked and returned to the student with detailed comments.

Summative assessment usually involves the allocation of marks or grades. These help staff to make decisions about the progression of students through a programme and the award of degrees but they have limited educational value.

Students usually learn more by understanding the strengths and weaknesses of their work than by knowing the mark or grade given to it. For this reason summative assessment tasks (including unseen examinations) should include an element of formative feedback if at all possible.

Further information and guidance on methods of assessment is available in the assessment sections of the Manual of Academic Procedures and:

Hinett, K., and Thomas, J (1999) Staff Guide to Self and Peer Assessment. Oxford Centre for Staff and Learning Development.

Brown S and Glasner A (eds) (1999) : Assessment matters in higher education: choosing and using diverse approaches / edited

University Of Manchester

by, Buckingham : Society for Research into Higher Education & Open University Press

Knight, P (1995) Assessment for Learning in Higher Education. Kogan Page, London.

LTSN Generic Centre assessment series

<http://www.campus.manchester.ac.uk/tlso/map/teachinglearning/assessment/teaching/curriculumdesign/>