

ECONOMICS

Principles of inclusive curriculum design

Anticipatory
Flexible
Accountable
Collaborative
Transparent
Equitable

Generic considerations

- cost and financial considerations;
- embedding student and staff well-being;
- promoting student engagement;
- use of technology to enhance learning;
- responding to different approaches to learning;
- avoiding stereotypes and celebrating diversity;
- making reasonable adjustments.

Introduction

It is the responsibility of the every member of staff within HE to respond to the requirements of equality legislation. The basic principle that can and should be universally responded to is that **it is attitudes, barriers and other forms of discrimination within the system rather than individual characteristics or deficits that are the cause of disadvantage**. Employing an inclusive approach is underpinned by the adoption of other principles of inclusive curriculum design, summarised in the adjacent text box and discussed in the introduction section of this guide available at www.heacademy.ac.uk/assets/documents/inclusion/disability/ICD_introduction.pdf

May and Bridger assert, in respect of developing an inclusive culture, “making a shift of such magnitude requires cultural and systemic change at both policy and practice levels” (2010: 2). In essence this change is represented by a shift in focus from responding to the ‘needs’ of individuals or specific groups of students to an approach that anticipates and plans for the *entitlements* of the evolving student population. Thus the onus is on institutions and subject communities to change and adapt their policies and practice rather than expect this of individual or specific groups of students.

There are many generic considerations of inclusive curriculum design, summarised in the adjacent text box, which are discussed in the introduction section. The focus of this section is on subject-specific considerations for those in those subjects aligned to economics. Here examples of innovation and effective practice are provided to demonstrate that effective practice for one group can and should be effective practice for all. The examples, resources and ideas included in this and other subject guides have come from the sector. They were obtained directly in response to a general request made to the sector during 2010, from a review of the HEA Subject Centres or from recommendations made by colleagues teaching in the specific subject.

Where there are examples in other subject guides that may be particularly relevant or worth reviewing for further adaptation these are flagged. However, notably inspiration and ideas for curriculum design can come from many sources, therefore reading strategies employed and ideas in other subject areas can be a useful source of new ideas.

Inclusive curriculum design: subject-specific considerations

Tackling differences in previous mathematical experience

The prior maths experience of Economics students is becoming increasingly diverse. Fewer students have taken A-level Maths or Further Maths and the content covered pre-entry is also changing, for example fewer students have prior experience of calculus. These changes in students' previous mathematical experience require curriculum designers to review the assumptions and expectations that underpin the Economics curriculum.

The 2009 Economics Network Survey of Lecturers (Economics Network, 2009) reported that the most important issues in teaching identified by Economics lecturers were:

- student maths skills;
- student motivation;
- large number of students in lectures and tutorial groups;
- specific needs of international students.

These findings were echoed in the 2010 Economics Network Student Survey (Economics Network, 2010) where students identified “less presumption of prior knowledge ... increasing number of workshop-style classes [and] slower pace of teaching” as the ways to improve the teaching of mathematics (Economics Network, 2010).

A common approach to teaching maths is to stream students studying Economics based on their prior experience and to offer different modules for non-specialists; for example, students studying Business Studies wanting to study particular topics without needing the level of maths skill and experience required of Economics students. This approach is inclusive because it enables all students to access a relevant and tailored curriculum.

The Mathematics for Economics: enhancing Teaching and Learning (METAL) (www.ntu.ac.uk/metal) Project has developed an online resource for students and lecturers that applies mathematics to economics (METAL, undated). This includes an online question bank,

interactive video units, teaching and learning guides, and case studies. The advantages of this site are that it allows students to access the material at a place and time of their choosing, which is a particular benefit for those students who may be studying at a distance, less able to spend time on campus or who have commitments that make it difficult to study during conventional hours.

The Bioscience, Engineering, and Mathematics subject guides provide examples that could be adapted for use on developing mathematical skills.

Engaging students in module design

Engaging existing Economics students in the curriculum development and design process can help identify barriers and less accessible elements of a course so that they can be overcome for future students. Greater interaction between staff and students may also help unpack whether lecturers' observations regarding the strategic approach and unwillingness to prepare for classes (Economics Network, 2009: 11) are due to students lack motivation or barriers to their learning. Feedback from Economics students highlighted a number of programme features that they liked or would like to see improved in future module designs, these included:

- seminars being more interactive;
- more written and explicit feedback;
- greater consistency in use of virtual learning environments (VLEs);
- connection to the real world;
- learning resources.

Students are often well placed to locate their subject knowledge in wider contexts; building in opportunities within the programme design helps them make these connections. Anonymous testing of students' knowledge base and teaching ideas were trialled using online discussion boards, where it was revealed that the students had an "open desire to critique economic concepts and, where necessary, combine the analysis with more general social science approaches" (Watson, 2010).

The module was then structured around the term 'Economic imperialism' to celebrate Economics as a field of study but also to engender an appreciation of other disciplines. The positioning of Economics within a wider context was welcomed by Joint Honours students.

See also English, Health Sciences and Practice, and Physical Sciences subject guides for other examples of student engagement in module design.

Teaching threshold concepts: how to think like an economist

Students of Economics will inevitably have diverse prior knowledge, experience and expectations of the subject. Threshold concepts – concepts that are central to a student’s mastery of a subject – “provide a way of describing the desirable overall learning outcome for students. Mastering these concepts enables students to demonstrate that they have learned to think and practice in the manner of scholars of a discipline, using a coherently structured body of ideas and procedures to analyse problems as they are defined by that discipline” (Embedding Threshold Concepts, undated). Explicitly articulating concepts that are necessary for mastery of the subject and embedding opportunities for students to engage with them provides the opportunity for all students, to acquire the knowledge and skills necessary to ‘think like an economist’. The Embedding Threshold Concepts project has devised, implemented and evaluated a number of teaching and learning activities for introductory level Economics curriculum. These comprise *reflective problem-focused* and *threshold network* exercises that support students to *think like an economist* by enabling them to:

- understand why problems are constructed in a particular way within Economics;
- apply theoretical concepts to relevant examples;
- make connections between concepts.

To more effectively support non-specialists to master key Economics concepts and thereby enhance their academic performance Aberystwyth University embedded threshold concepts into a first-year undergraduate Economics module. They integrated online exercises using threshold concepts into the learning and teaching activities. The result was “a significant increase in the use and quality of applied economic analysis and a more consistent use of the economic toolset” by all students, although non-specialists appeared to have particularly benefited (Marnet, 2010).

Using technology for assessment and interim module evaluation

Lectures remain the core element of Economics programmes. This teaching method can make it difficult to gauge the accessibility of material being presented. Students may become disengaged if a session’s pace is too quick or if more time is devoted to material they are already familiar with or confident about. An inclusive approach would be to build in opportunities for all Economics students to feedback during the module to enable a more tailored and responsive content.

In response to student perceptions about the curriculum content's challenging and 'dry' nature, Lancaster University introduced a personal response system (PRS) to lectures on a Microeconomic Principles module (Elliot, 2002). The system was used to pose around five multiple-choice questions per session. The questions test students' understanding of content, their recall of material covered previously and are also used to stimulate interest in new material. This enables students to shape the module design during its delivery (Elliot, 2002).

Improving inclusion of international students benefits all students

International students comprise a significant proportion of Economics students. Data from the 2010 Economics Network Student Survey found that 30% of students had not studied in the UK before and around a third of students were not native English speakers, an increase since 2008 (Pomorina, 2010). Acknowledging the issues and concerns raised by international students can benefit all students and assist in developing an anticipatory approach that can reduce duplication of effort. For example, students' benefit and staff time is saved by providing accessible and timely information including course outlines and explicit guidance on expectations about student participation and assessment (Pomorina, 2010).

SMIRK (Simple Media-Integrating Resource Creator) has been created by the University of Hertfordshire to enable the creation of multimedia presentations. The package was integrated into an Introduction to Microeconomics module with over 800 registered students (Kraithman and Bennett, 2005). Online multimedia streaming presentations were made available each week and the two-hour lecture slot replaced by workshops that were supported by group tutorials. All students benefit from the opportunity to replay and review the presentations at their own pace and in a setting of their choosing.