Module and Curriculum Design

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1. Introduction

In the early years of your career, you are likely to find yourself teaching established modules (courses) that have been taught before, being part of an existing programme and with all the accompanying documentation prepared. However, at some point you will want to branch out and design your own module; perhaps one that aligns with your research interests. It may even be that the time comes when you have ideas about how the programme itself should be structured, or you want to design a programme of your own choosing. This chapter discusses some of the steps that you would need to follow in order to be successful in module and programme design.

The chapter extends, updates and complements the earlier chapter on 'Designing undergraduate degree programmes' by Rebecca Taylor (2002).

It has never been more important to ensure that the education we provide for our students fits their needs and meets their expectations in an increasingly competitive job market. Thoughtful and well-planned module and curriculum design can provide a framework for this.

Students who expect to complete their degree programme with substantial debts need to know that the education they receive will prepare them for their life beyond graduation. A thorough and rigorous grounding in a subject will still be important, but the ability to apply disciplinary thinking in a variety of employment settings will also be crucial. Furthermore, there are more generic skills that need to be embedded into the curriculum alongside the disciplinary components. Graduates need to be prepared to adapt to a rapidly changing global environment, in ways that we cannot foresee.

As economists, we know that the subject engenders a way of thinking that is indeed widely applicable in many different contexts. However, this needs to be clear in the design of our modules and curriculum.

In any move towards designing — or redesigning — a module or curriculum we must be aware of the constraints within which we must operate. The Quality Assurance Agency (QAA), as the regulatory body for UK HE institutions, provides the framework that shapes the structure and content of the curriculum, but allows for considerable flexibility.

This chapter will explore how the economics curriculum, and the modules that are its components, can be designed to maximise its appeal to students and employers, without losing the rigour of analysis that we hold dear.

2. Definitions and assumptions

The focus of this chapter is on the undergraduate curriculum, and its component modules. The issues that arise in designing a degree programme for postgraduate students are rather different, given the specialist or vocational focus of such programmes and their shorter duration.

For discussion of designing postgraduate programmes, see the Handbook chapter 'Designing *ab initio* postgraduate degrees' by Mark Baimbridge (2013).

Nomenclature relating to the components of a degree can vary between institutions, so let's be clear about the definitions that will be used in this chapter

A **degree programme** (or just **programme**) refers to the entirety of the study undertaken by a student, normally over a three-year period. Programmes are sometimes known as courses, but this chapter will refer to programmes.

A programme can be seen to be divided into a number of parts. A **part** is taken to be the material studied during a year of full-time study. For example, Part 1 will be taken to refer to the material normally covered in the first year of full-time study. This is used instead of referring to 'years' to avoid potential confusion caused in relation to part-time or sandwich programmes.

Each part is in turn made up of a number of **units** or **modules**. These are also sometimes known as courses. These are the building blocks of the curriculum, and will be termed as modules for the remainder of this chapter.

The design of a module needs to reflect the overall structure of the programme to which it contributes, and this will be an important factor to consider when producing or amending a module.

Curriculum design in the context of an undergraduate programme refers to the way in which material is organised within the programme. There are many dimensions to this, including the balance between micro, macro and econometric topics; the balance between theory and applied material; the need to ensure progression through the typical three-year programme; and so on. These aspects will be considered in Section 5.

In England, Wales and Northern Ireland, the typical undergraduate programme runs over three years — or four years for a sandwich course. In some disciplines (notably Engineering), it is common to have a four-year integrated undergraduate Masters' degree. Universities in Scotland operate four-year degree programmes, reflecting the different nature of pre-university education. This offers different challenges and opportunities for curriculum design.

The QAA provides the regulatory framework for degree programmes in the UK, and specifies the criteria to be met by any degree programme. The QAA covers Scotland through a similar but separate process. Section 5 explores the way in which the QAA influences discipline-based curriculum design through its general framework and its subject benchmarks.

3. Desirable characteristics of an economics graduate

A first step in designing a module or curriculum is to be clear about its objectives. From our perspective as economists this may seem self-evident, but is deserving of some discussion. A starting point is to think about the nature of the product from the programme — i.e. to consider the desirable characteristics of a graduate from an economics programme. In the context of an increasing focus on the employability of graduates, this needs to take into account the expectations of typical employers of economics graduates. Notice that success in placing our graduates in employment contributes to the Teaching Excellence Framework (TEF) through the data regarding the job destinations of graduates (DHLE).

3.1 Disciplinary knowledge and understanding

The first objective is to produce graduates who are well-grounded in economic analysis, fulfilling the national subject benchmarks. This is an essential feature of any economics programme, and the benchmarks are discussed in section 5 below. It is also desirable for students to be exposed to a balance of theoretical and applied material — although programmes may differ in having a bias towards one or the other. Curriculum design also needs to consider the sequence in which material is presented.

3.2 Reflective and independent learners who can think like economists

Looking beyond the benchmarks, we want our graduates to be able to think like economists. This is less well-defined, but most would acknowledge that this is part of our aim in designing a programme. We would also want to produce graduates who are reflective learners and capable of independent thought and research. After all, this is the essence of what a university education is about.

This is more challenging in a world in which students become increasingly exam-oriented, and in which many students come to university from educational and cultural backgrounds that have not fostered notions of independent study. If we are to achieve this objective, we need to provide students with opportunities for independent study and research. These should be embedded within the design of the curriculum, for example through a research project or dissertation. These are discussed in the chapters in *The Handbook for Economics Lecturers* by Kim Marie Goldrick (2007) and Peter Smith (2016).

3.3 Graduates fit for life beyond the programme

The curriculum also needs to be able to prepare our graduates for the life after their undergraduate studies. In other words, we should see the undergraduate programme as a step that will lead into the next phase of their career path. Given the burden of debt with which they will leave our programmes, it is likely that they will want to know the ways in which their studies will provide a preparation for their intended career, and we will need to be able to articulate this.

It is worth being aware that the qualities that we wish to endue in our graduates may not correspond to the factors valued by employers in recruitment terms. A survey by the CBI in 2015 revealed that the two top qualities considered by employers were attitudes and aptitudes for work and relevant work experience or placement. Degree subject was only the third highest, followed by degree class, with university attended and foreign language capability some way behind.

Of course, one of the complications here is that there is no unique destination for an economics graduate, so the curriculum needs to be designed in such a way that it can prepare our students for multiple alternative lifepaths.

Some of our students may wish to continue their studies in economics, pursuing their studies to postgraduate level, and possibly beyond. Others may have an ambition to become professional economists. Some may wish to enter a career in finance or management. Others may enter a wide variety of other careers connected to economics to varying degrees.

In order to accommodate these different paths, the curriculum and its modules need to be flexible enough to allow graduates to exit towards these different destinations. If we were to design a programme solely for the purpose of preparing students to proceed to an MSc and then a PhD, the curriculum would look very different from one that was designed to produce graduates for employment in a range of non-specific occupations. In many cases, we want the curriculum to deliver on both, or we may run interlocking but parallel programmes with different objectives in mind.

In the past, there may have been a tendency to focus on programmes that are just the first step in a sequence ending with a PhD, or on programmes that were designed to produce professional economists. This can result in a relatively narrow focus in the curriculum. In 2016, some 60% of economics graduates from UK universities were working full time, compared with about 14% who were in further study, training or research.[note 1]

This is by no means a feature only of economics programmes, and there are many discipline-based programmes which assume that students are only interested in a single subject. This can be unfortunate, as not all students who study history become professional historians, nor do those who study chemistry all become chemists. Economics is no different in providing graduates to a range of professions. As far as curriculum design is concerned, this means that we may want to provide opportunities for students to broaden their horizons as part of their programme of study.

There is some evidence to support this. Employers have indicated that it is not uncommon for them to interview students whose knowledge and understanding of their own discipline is excellent, but who struggle when asked questions that take them out of this comfort zone.

Curriculum design can tackle this in several ways, for example by highlighting generic skills that are embedded into the curriculum and by encouraging students to participate in what has become known as the ‘co-curriculum’ — activities in which students participate outside of the formal credit-bearing programme but which enhance their employability skills. This includes the development of ‘non-academic’ skills. The curriculum can also be designed in such a way that students are able to look beyond their own discipline as part of their programme.

Footnotes

[1] See Kirsty Palmer (2016) "Social Science Overview" Higher Education Careers Services Unit

4. Designing a Module

Let's suppose that you have the opportunity to design and launch a module, or that you want to make major changes to a module that you have inherited from someone else. Where do you start?

You might think that you can start by focusing on what you would like to teach…but in today's climate it pays to begin by thinking about what your students need to achieve by attending your module. To put it into education-speak, you need to consider the learning outcomes that the module will deliver. You will need to express things in this way in order to comply with the bureaucracy (which we will discuss soon). If you prefer it, you can think about this in terms of how students will benefit from the things you would like to teach them.

Approaching the task in this way, you will need to consider not only the content that you intend to provide, but also the skills and attributes that students will acquire by attending your module. You can then tailor the design of the module in order to be able to deliver these learning outcomes. This process is known as 'constructive alignment', and this entails three key elements: syllabus content, teaching methods and assessment strategy.

4.1 Syllabus

In identifying the intended content of the syllabus, a first consideration is how the module will fit into the programme (or programmes) of which it will be part. If the module is an optional component of the programme, you are likely to have more discretion over the content than if it is a core or compulsory module. The content of a compulsory module is likely to be more circumscribed, as other colleagues will be relying on you to deliver some key concepts or topics.

You also need to consider your likely audience. Will the students taking the module be specialist economists, joint honours students, or perhaps students from unrelated programmes who happen to be interested in the topic? This is important because you need to know what prior knowledge they are bringing. It may be that you need to set prerequisites for the module, if you will be assuming familiarity with certain parts of

economic theory. Otherwise, you will find yourself having to explain concepts or impart knowledge that you did not expect to have to include, taking time away from your real intended content.

Top Tip

Make sure that you are familiar with the overall structure of the overall programme, so you know what topics are likely to have been covered by the students you expect to take your module. Liaise with colleagues.

The syllabus for your module will also have to take into account the amount of contact time available for your teaching. This will be determined by the Department or the University. Remember that there is a trade-off between syllabus coverage and depth of learning. You may be tempted to cram in lots of interesting stuff, only to find that you do not have enough time to cover everything to the level of detail that you wish.

Top Tip

Don't be too ambitious in the quantity of material you set out to cover. Students may benefit more from deep learning of a limited number of topics than from skimming through lots of issues at a superficial level.

4.2 Teaching methods

So you have chosen the topics you will cover in the syllabus. The next step is to consider how you will deliver the learning outcomes through your choice of learning and teaching methods.

There is plenty of advice on the range of learning and teaching methods available in the Network's *Handbook*, so make sure you make good use of the guidance provided there. For our purposes, when designing a module, the key decisions concern the balance between different styles of learning and teaching delivery.

For example, how do you envisage the balance between passive and interactive learning? Will you rely on the traditional 'chalk and talk' approach, or will you try to engage the students in active and interactive learning? Lectures allow you to cover lots of material by transferring some knowledge from your brain to your students' short-term memory, but this does not encourage deep learning.

You may prefer to use flipped classroom techniques, experiments or teaching technologies. These methods encourage deeper learning, and will engage students more actively in your module, as they need to become active participants in the learning process.

Top Tip

Before you spend time planning lots of exciting ways of engaging students, make sure that the facilities you need are available. Will the rooms in your university be suitable for the innovations you want to introduce? Is the required technology supported?

4.3 Assessment strategy

Having decided what to teach and how to deliver it, you also need to think about how to assess your students.

An important decision in designing a module concerns the balance between formative and summative assessment. Formative assessment aims to help students by providing feedback on their work and to motivate them by developing their awareness of their strengths and weaknesses. It also allows you to diagnose those strengths and weaknesses. Formative assessment does not necessarily contribute to their formal performance measure on the module. Summative assessment, on the other hand, does contribute to the judgement of student performance on the module.[note 1]

Both types of assessment are important. Formative assessment is especially important as a way of improving student learning, and providing feedback. An issue here is that although students routinely complain in the National Student Survey about the lack of feedback provided to them, there are always some students who will only submit work if it counts towards their mark. Providing motivation for them to attempt formative assessment is important, but tricky. Summative assessment is of course essential for determining pass/fail, grading students, enabling them to signal their performance and so on.

You will also need to decide on the form that assessment will take. It may be that your Department insists on an unseen written examination for each module, or that a certain portion of the summative assessment should be based on some form of coursework.

If you decide on setting coursework (or a combination of coursework and exam) as the summative assessment, you will need to think about the timing of the coursework. Too early, and the students may not have covered enough material to make it possible to assess their performance. Too late, and they get embroiled in exam preparation. Where the assessment is wholly on coursework, attendance at lecture and seminars may be affected if the topics relevant to the work have been covered too soon in the module.

Top Tip

Remember that it is important to coordinate the timing of coursework assessments across modules, otherwise students may find themselves with multiple pieces of work with the same deadline. They will then complain about the workload and pester you for extensions. Talk to colleagues to check this.

4.4 Information

When designing a module, you will inevitably need to produce documentation. This will be needed for the module approval process, but also you will need to provide information to students who are considering taking the module, or who enrol on it.

Early in the process, contact your administration or University website to find out what documents need to be submitted to get approval to run the module. This is likely to include the items already discussed — learning outcomes, teaching methods and assessment strategy. There will no doubt be a template in which this needs to be presented.

Top Tip

Find the template at the outset to avoid duplication of effort, and check the timescale in which the documents need to be submitted.

The template will no doubt demand other information as well, including credit weighting, teaching and study hours, not to mention the learning outcomes.

As you prepare this documentation, be aware that you will also need to provide information to the students who will take your module — and notice that some of this will be the same information that is needed to go through the approval process. It thus makes sense to think about this at the same time. Students will need to know about content, teaching methods and assessment methods. They will also be interested in the prior knowledge they will need to tackle the module successfully and the technical level expected. They may also be interested in the likely reading and references involved. They may even refer to the intended learning outcomes.

4.5 Using the VLE

An important part of planning and launching a module concerns the way in which you will make use of the Virtual Learning Environment (VLE). This could be Moodle, Blackboard or some other software used by your university.

Most (if not all) universities set minimum requirements for the information provided to students via the VLE. This will include such things as the module profile setting out details of the things that we have already discussed, such as content, teaching methods and assessment. You may want to provide a rough schedule for the expected timings of syllabus content, or other information that students will find useful (some of these are discussed in the next section).

You might want to use the VLE more imaginatively, providing video links, setting up blogs or discussion boards. You may wish to tailor the way the site looks to students to set your module aside from the crowd. All these things need to be planned in advance.

4.6 After the module is approved…

Once the module is approved, you need to start planning ready for the launch. There are some obvious things you need to do (such as planning your lectures and seminars etc.). There are also some crucial 'little' things that can easily be missed, but which can have a big impact on how the module turns out.

4.6.1 Who needs to know?

Think about who else needs to know about your new module. The **library** needs to know what you will expect students to access, so a reference list is important. If there is a core text, does the library have enough copies for the number of students likely to take the module? The **bookshop** will need to know what books to stock (even if most students may rely on Amazon or the library). The **computing service** will need to know if there is particular software that students will need to use, or if you need to book computer rooms for workshops.

4.6.2 Room bookings

Then there are issues around **timetabling** and **room bookings**. Do you need particular facilities that are only available in some rooms? If you are running a combination of large and small groups, what does this mean for the timing of small group sessions? For example, do they run every week? If in alternate weeks, when do you want them to start and finish? You might have a preference for 'odd' or 'even' weeks. If you are running experiments or games, do you need a larger room than the number of students would justify, in order to allow them to move around the room or interact with each other? If you want to run sessions where the students discuss in groups, you may wish to avoid a room with fixed seating. If you intend to record your lectures, you need to check that your room has the facility for this. There are many aspects to room booking, so think about how you want to operate.

4.6.3 Handouts

Think about handouts. Will you be providing handouts to support your students at the beginning of the module? Will they get weekly updates or copies of lecture slides? How will these be provided? How will you inform them about assessment tasks (both formative and summative)? Will the VLE be the prime way in which you provide your handouts? Does you institution insist that handouts are provided in advance of the lectures?

Top Tip

When handouts are distributed before the sessions, you may observe that students may think that they do not need to take notes. You could try leaving gaps in the handouts so that students have to write something. They may even take extra notes when they realise that you are not just reading out the handouts.

4.6.4 Liaison with teaching assistants

You might be in a situation where you will have graduate teaching assistants (GTAs) to run seminars or classes for you, or to undertake marking of formative assessment. You will need to provide tutorial or seminar work to your GTAs in good time for them to prepare their sessions. You may well wish to give them worked answers and explain what you want the students to gain from the tutorials or seminars.

4.6.5 Assessment

You will need to be clear about the logistics of the assessment. If you are setting formative assessment tasks or summative coursework, you need to plan how students will submit their work. Will you use electronic submission? Or will they hand in hard copy through an office?

Electronic submission is becoming increasingly common, although this may pose challenges for some maths assignments. You may be able to accept submission through the VLE, and perhaps mark it online. Indeed, this may be an institutional requirement.

Remember that for summative coursework, you may need to provide a sample of work for scrutiny by the external examiner, although this may not apply to work that carries a small weighting in the overall module assessment. You may also need to have the coursework approved by the external examiner if it does carry a high weighting. For written work such as project reports, you will want to check for potential plagiarism, probably using the TurnitinUK software (which may be invoked automatically if you accept work through your VLE).

Top Tip

When running a module for the first time, it is helpful (perhaps essential) to provide sample assessment materials (e.g. a sample exam paper). This helps students to know what you expect from them.

You may want to use mid-term exams or tests as part of the assessment. You may well intend to allocate normal lecture time for this to take place – but be careful. There are likely to be students following your module who are eligible for special exam arrangements, such as extra time (because of dyslexia), or other accommodations for medical conditions. Or there may be students who are ill, or for other good reason unable to take the test at the time you plan. All these will need to be accommodated somehow.

4.6.6 Feedback and communicating with students

Providing feedback to students on their work is important because this is the way in which students can learn from the work that they undertake — and because they will be answering questions about it in the NSS, although, of course, this is not why we do it.

Feedback can be provided in a variety of ways, although all too often it seems that students have a narrow view of feedback as comments given in writing on their work.

This is far from the case, but it is important to make students aware when they are receiving feedback. There is a chapter on giving feedback in the Network's *Handbook*. You may find that you will have to provide details about how you will give feedback when preparing document for module approval.

When designing the module, it is good to think about how you will communicate with students. Your Department may insist that you have office hours (or even 'feedback and office hours'), or you may be able to use an online booking system for appointments. You may choose to use the VLE to send emails, or set up a discussion board. However, be aware that students may see these as old-fashioned and clunky ways of communicating, being more accustomed to texting and social media.

4.7 Summary on module design

Please don't be put off by the range of issues that need to be considered in designing a new module. Much of the hassle comes up-front, and once running the module should be good for a while!

When the module runs for the first time, take notes of what goes well, and what could be improved in the future. It is all too easy to forget both good and bad aspects unless you keep a record. No doubt your institution runs an annual module questionnaire of some sort, so make sure you check out the comments made by students to see whether they view the module's successes (and areas for improvement) the same way that you do.

Footnotes

[1] See Nigel Miller's chapter, "Alternative Forms of Formative and Summative Assessment"

5. Designing a Programme

Launching a new programme is a complex process that entails extensive planning and administrative hassle. However, in a rapidly changing economic and political environment, it is crucial to refresh the range of degree programmes offered to students. This may involve revamping existing provision, or it may mean introducing wholly new programmes, perhaps reflecting the changing research and teaching interests of staff in the Department as well as the changing needs of students.

5.1 Market research

As with designing a new module, a first step is to reflect on why the new programme is needed, and for whom it is intended. Is there a demand for the new offering? Or is it just something that appeals to you and/or your Department? There is no point in devising a wonderful new programme that will be enjoyable to teach if no students will want to follow it.

Market research will need to focus on potential student demand and on competitor analysis. As far as student demand is concerned, your admission office may have the resources to do some of this work for you, or you may have to rely on asking questions when applicants come to visit. This is unreliable, of course. For example, if you ask applicants whether they are interested in study abroad, and you may well be faced with great enthusiasm – but once they are on course, persuading them to take advantage of these opportunities becomes a challenge.

Competitor analysis is also important. Are you entering a crowded market, or have you found a new niche programme? Watching what other institutions are doing in terms of curriculum development may provide ideas, but also warn of the potential intensity of competition in some areas. External examiners on your existing programmes and colleagues can act as a useful sounding board as you explore the potential viability of your new programme. You will no doubt need to make a case for viability as part of the approval process.

Top Tip

The Economics Network website provides links to economics departments in the UK.

5.2 Making the case for the new programme

Having convinced yourself of the desirability of the new programme, how do you convince your colleagues and administrators that it is a good (and viable) idea?

In addition to the market research, you need to be able to show how the new programme will enhance the Department's portfolio of programmes, and how it will fit in with existing provision. What is the underlying purpose for the programme? What will be the overall learning outcomes? How does this complement what is already being offered?

An important issue for both your colleagues and for the institution's administration is naturally the resourcing of the programme. What will it cost in terms of staffing? Will it be able to draw upon existing modules, or will it necessitate the development of lots of new ones? Will it be attractive to international as well as UK students?

You will need to convince your colleagues that the new programme will fit with existing provision. Make sure that there is coordination across programmes in relation to things like entry requirements. If you are intending to make use of some existing modules, check capacity constraints and prerequisite structures.

How will the admissions process be handled? Will the new programme be advertised alongside existing programmes? How will you announce the availability of the new programme? Will recruitment to the programme complement the existing programme or draw recruitment away from existing offerings?

You may need to coordinate the assessment structures and the range of assessment methods to be used across the programme, to ensure a good balance of exams and other forms of assessment.

Will the current external examiners be able to take on responsibility for the new programme, or will there need to be new appointments?

Top Tip

Talk to colleagues throughout the process: get them involved and on board.

In designing a new programme, you will face a variety of constraints that will influence the way in which the programme can be built. These come from your Department and/or Faculty and from the need to comply with the approval procedures of the university, which will in turn reflect the demands of the QAA.

Your institutional programme approval processes will ensure compliance with the requirements of external bodies, but it helps to be aware of how these are likely to affect the way in which you build your programme. External regulatory bodies include the QAA and the Competition and Markets Authority (CMA), but also may involve accreditation agencies if your planned programme is intended to offer exemptions from professional exams, such as are needed for accountants or actuaries etc.

5.3 The requirements of the QAA

The first essential thing to be addressed in designing a curriculum is to ensure compliance with the requirements of the QAA, which is the regulatory body charged with the responsibility of upholding quality and standards in universities and colleges. QAA does this through its **Quality Code**, which 'gives all higher education providers a shared starting point for setting, describing and assuring the academic standards of their higher education awards and programmes and the quality of the learning opportunities they provide'.[note 1] For programme design, the most important parts of the Quality Code relate to the Framework for Higher Education Qualifications (FHEQ), subject benchmark statements, programme specifications and programme approval. Many, if not all, of the steps needed to ensure compliance will be imposed on disciplines through the medium of institutional procedures.

5.3.1 The Framework for Higher Education (FHEQ)

The FHEQ sets the general framework for degree programmes, and the QAA is clear that it 'should be regarded as a framework, not a straitjacket'.[note 2] At the heart of the FHEQ is an attempt to ensure that qualifications awarded by Higher Education Institutions (HEIs) maintain consistent standards, with a common expectation about student achievements. It is important to note that the 'fundamental premise of the FHEQ is that qualifications should be awarded on the basis of achievement of outcomes and attainment rather than years of study'.[note 3] This underpins the approach to be taken in designing a curriculum and in preparing the associated documentation. There is a wealth of detail in the QAA documentation, so I will focus on a few key issues that need to be built into curriculum design.

First, it is worth noting that the FHEQ does *not* constitute a credit framework. Many UK universities do operate on a credit framework, but this is not mandatory under the QAA rules. However, QAA does provide guidance on academic credit arrangements. If your institution does use a credit framework (and most do so), your programme will need to recognise that in the way it is put together. In practical terms, this determines the size and number of modules that will comprise your programme. What this means in practice is that you will not have freedom to make up your own modular structure, but work with your institution's standard set-up in terms of the number and size of modules.

Top Tip

At the outset, make sure that you know the modular structure that is used in your institution. This may involve CATS or ECTS credits being allocated to each module.[note 4]

Under a credit system, each module takes on a credit value. This reflects the hours of study expected of a typical student following the module, these hours being divided between formal contact time and independent study hours. For example, a module rated at 20 CATS points would involve a total of 200 study hours. A year of study must sum to 120 CATS. Under the Bologna process, the learning outcomes (and associated workload) of a typical full-time year of academic formal learning represent 60 ECTS. In other words, 1 ECTS is approximately equal to 2 CATS.

Where this becomes important for curriculum design is in specifying the overall requirements for an honours degree or any of the intermediate exit points that are available on most programmes. Table 1 summarises the credit values normally associated with each part of an undergraduate programme in England.

Table 1: Credit values and curriculum design

HE qualification as in FHEQ	Part	FHEQ level	Minimum credits (CATS)	Minimum credits at the level of the qualification (CATS)	ECTS
Cert HE	1	4	120	90	
Dip HE	2	5	240	90	approx 120
Bachelor's degree with honours	3	6	360	90	180-240
Integrated Master's degree	4	7	480	120	

A normal interpretation of this is that to be awarded an honours degree, a student must have accumulated 120 CATS (60 ECTS) per part, with at least 90 CATS (45 ECTS) at each FHEQ level. Institutions will no doubt have their own rules and regulations for implementing the framework, so you may have no real choice in choosing the overall credit structure. Nonetheless, it is worth being aware of the structure, as it underpins curriculum design.

An important aspect of this is that there must be progression in what is expected of students at each successive level.

5.3.2 Subject benchmarks

When designing a curriculum, a fundamental requirement is to ensure that the contents are consistent with the relevant subject benchmarks. The economics benchmark statements, which were amended in 2015, can be found at http://www.qaa.ac.uk/en/Publications/Documents/SBS-Economics-15.pdf .

If you study the benchmarks, you will find that they are not actually very constraining, in the sense that they summarise in a common-sense way the components that most economists would agree should lie at the heart of any economics curriculum. In other words, the benchmarks specify a range of features that we would look for in any economics degree programme. The details are not provided here, as this would be repetition of the benchmarks themselves. Suffice it to note that they encompass the aims of degree programmes in economics, and specify the subject knowledge and the subject-

specific and other skills that students are expected to accrue during their studies. The economist's way of thinking and the importance of the transferable application of economic concepts are also emphasised. In other words, the benchmarks set out the attributes that students successfully completing a degree programme would be expected to have gained.

Top Tip

Notice that the way in which the benchmark is set out is helpful when setting out to draft the programme specification, which is another essential part of developing a new curriculum.

5.3.3 The programme specification

Part A of the QAA's *Quality Code*[note 5] requires all HEIs to 'maintain a definitive record of each programme and qualification', to be shared with staff and students. This is the reference point for the delivery of the programme, and will be a key part of the documentation that you will need to submit as part of the approval process.

The most common form that this definitive record takes is the **programme specification** (or equivalent). Make sure that you obtain a copy of your institution's template for this early on in your planning.

Programme specifications (or equivalent) are normally built around the learning outcomes. This is potentially helpful, and can be seen as a foil to the common media obsession with contact hours. The outcome-based approach focuses on what a student can have achieved successfully completing a programme of study, rather than how study hours are divided between direct contact with academic staff and independent study time and other forms of learning.

Top Tips

If you want to look at some examples of programme specifications, you may find them as part of the Key Information Sets (KIS) that all HEIs are required to supply. These are found on the Unistats website at https://unistats.ac.uk/ . If you select a programme, find the heading 'Time in lectures, seminars and similar', then click on 'How the course is taught'. You *may* then find the programme specification, although not all institutions provide the information in this form.

As outlined in the discussion of module design, individual modules are also expected to have their own learning outcomes associated with them, and the programme specification then shows how those modules can be combined into a coherent programme.

Notice that having a programme specification (or its equivalent) is not optional, as it is one of the key documents that will be audited as part of the QAA Higher Education Review. Programmes will be judged by whether they deliver on the claims that are embedded in the specifications.

5.4 Programme approval

Chapter B1 of the QAA Quality Code contains guidance about programme approval.[note 6] Your institution's formal approval procedures will ensure that your programme complies with this guidance, so make sure that you follow this carefully. The process will no doubt include an element of external scrutiny, so think about who you might consult.

Top Tip

When looking for an external scrutineer, you could do worse than start with the list of Associates of the Economics Network. Notice that you cannot use present external examiners for this role.

Be aware of the timescale over which the approval process will be spread. A new programme is likely to go through several stages of scrutiny and consultation. For example, you might draw attention to your plans at the start of an academic year, with the hope of being ready for the following year — but in practice, it might take longer than this.

There will need to be preliminary discussions with interested parties (including your colleagues). There will then need to be discussion by the executive to see whether your proposal fits with the strategic aims of the Department, Faculty or School and the University. Documents then need to be drafted, and an external expert appointed. Other Departments and professional services may need to provide their input, and there needs to be rigorous academic scrutiny. Only once validated will you be able to start advertising and recruiting.

There are some other time constraints to consider. For a new undergraduate programme, there must be a Key Information Set. This needs to be ready fourteen months before the start of a programme, as it needs to be published a year before the programme starts. For at least one university with which I am familiar, the deadline for including an undergraduate programme in the printed prospectus comes 20 months before students enter the programme.

Top Tip

Make sure you do not miss key deadlines set by your institution. Missing key deadlines can delay the launch of the new programme, possibly by a whole year.

A similar schedule applies for major changes to existing programmes. The decision on when to launch would also depend upon being able to advertise and recruit. Ultimately, this may be the deciding factor in choosing how quickly to launch. Timescales are likely to vary from institution to institution.

5.5 Building the programme

In building the core of the curriculum, balance needs to be achieved across a range of dimensions. There needs to be a balance between theory and applied material, and between micro and macro. Decisions also need to be taken about the place of mathematics and statistics in the curriculum, being aware that the subject benchmarks indicate that a variety of approaches can be adopted. For example, it is recognised that some degrees that are not single honours economics programmes may not cover all of the core elements, and that 'the forms of analysis chosen may differ and may be tailored to best serve the skills that students bring with them into their degree programme'. [note 7] Choices here may therefore depend upon the characteristics of the student intake – or perhaps the curriculum will dictate the sort of students to be recruited.

Questions of balance also arise where a single honours curriculum may co-exist with a series of joint honours programmes or a major/minor approach. The core modules on a programme need to be designed in such a way that the programme outcomes set out in the programme specification can be met by all students who complete the programme successfully. However, students value choice in their curriculum, and if the outcomes can be met in a subset of the modules that make up the programme, then this can create flexibility for students to exercise some choice of what to study. This may take the form of choosing amongst a range of optional economics modules, or it may be that students can choose other modules (e.g. languages) from outside their core discipline. This may be one way of enabling students to enhance their employability.

The design of the core curriculum may also need to take into account the possibility that some students may wish to spend part of their degree programme studying abroad. Many programmes are designed to enable either a whole year study abroad, or a single semester.

5.5.1 Curriculum and audience

There are many economics programmes being taught across the UK, catering for a wide variety of different audiences. There are highly technical programmes with a heavy bias towards theory and a high level of mathematical content. There are other programmes that have a more applied focus, perhaps with a stronger, practical, employability focus. The curriculum has to be designed for its intended audience and to deliver the intended programme outcomes. This has implications for the entry requirements and for the balance of content across the curriculum. For example, requiring an A-level in Mathematics provides a signal about curriculum content.

It is also important to be aware that many students may not fully anticipate the mathematical nature of some programmes, only discovering well into the first term that they are not well suited to the approach being adopted. This seems to happen regardless of the information that we provide before they arrive, and may reflect the content and style of the A-level Economics specifications. For students that do find that their talents and abilities are more suited to a less technical approach, curriculum design may need to be framed in such a way as to provide an 'escape route'. This may be especially important where the admissions criteria do not require students to have studied economics before embarking on the programme.

5.5.2 Content, sequence, balance and engagement

In setting out to design (or to redesign) a curriculum, it is perhaps inevitable that much of the focus will be on what to include and in what order – as well as how to structure and organise the material. However, it is also important to be aware of the need to engage our students with their learning, and to design the curriculum to transmit the excitement of the subject. If we do not engage our students with the subject we will have failed.

Engagement comes partly through the way in which we deliver material, but curriculum design is also important. One way of capturing our students' attention through curriculum design is by using the 'Threshold Concepts' approach as outlined in the chapter in the *Handbook for Economics Lecturers* by Peter Davies and Jean Mangan.[note 8] These concepts offer a focus on key ideas that can begin to introduce students to the way that economists think. For many students, it is also important to highlight applications of economic theory in the early weeks, balanced against the need to demonstrate the importance of learning and polishing quantitative skills. It is also crucial to remember that our students come from diverse backgrounds and have diverse preferences. There will be those who relish the mathematical approach and are keen to engage with theory. We need to cater for them as well.

The financial crisis of the late 2000s launched widespread debate about the way in which we teach economics. You can read about this on the Economics Network website.[note 9] An important offshoot of this debate has been the development of the CORE project.[note 10] This project has produced an 'open-access, interactive ebook-based course for anyone interested in learning about the economy and economics'. When planning to design a new programme in economics, you should check out this material, which offers a novel approach to introducing students to economics, to see whether this approach would work well with your intended students.

Top Tip

If you do decide to use this approach, be aware that there will be an impact on how you design the curriculum beyond the first year of the programme.

5.5.3 Study abroad?

A further element influencing curriculum design concerns the opportunity for students to spend a period undertaking study abroad. Such opportunities can either be embedded within the curriculum or can take the form of a year out during the programme. Experience suggests that universities have been more keen to provide such opportunities for their students than students have been to take advantage of them. This is evidenced by the nation-wide tendency for UK universities to be net importers of exchange students, with many more European students coming for a year or semester in the UK than British students travelling abroad. It remains to be seen whether (or how) this will be affected by Brexit.

The language issue looms large here. In general, the language skills of British students are inferior to those of students from elsewhere. However, British students have also been reluctant to study abroad even when the language of instruction is English.

As far as curriculum design is concerned, the key issue is whether the credits earned by the student abroad are to contribute to the home institution's award or not. A student taking a term or semester abroad will need to have the credits recognised as part of the degree programme. This means that the institution will want to have quality assurance checks in place to ensure that the material studied abroad is at the appropriate level and that the foreign institution is of a recognised status. It will also be necessary to ensure that any programme outcomes that would have been achieved had the student remained in the home institution are adequately covered by the study abroad. For example, if the student would have taken a core micro or macro module, do the modules studied abroad align with the pertinent learning outcomes? This will require careful scrutiny of the module outlines to ensure that they cover similar material. A whole year abroad may pose fewer problems, if it can be regarded as an intermission in study, such that the credits do not have to be transferred and recognised locally.

For study that is embedded in the curriculum, the language issue must be considered – at least where the opportunities to study abroad involve study in a foreign language. Indeed, even if teaching is available in English at a university in Europe or elsewhere, the language for everyday living is still a potential issue. In order for the option to study abroad to be a serious offer, students need to have the opportunity to learn or improve their language competency. This should preferably be available within the curriculum and not just as an evening extra. This clearly has implications for curriculum design.

It is widely believed that studying abroad is a way of enhancing the student experience and improving employability, and to be able to offer students the opportunity when they visit on open or visit days seems to increase the attractiveness of programmes. However, persuading students to take up the opportunities seems to be the greatest challenge, perhaps because once students are caught up with their programmes, the risks of taking time out to study abroad loom large.

Footnotes

[1] http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/introducing-the-quality-code

[2] http://www.qaa.ac.uk/en/Publications/Documents/Framework-Higher-Education-Qualifications-08.pdf

[3] Ibid.

[4] CATS relates to the Credit Accumulation and Transfer System, whilst ECTS relates to the European Credit Transfer and Accumulation System, used across Europe.

[5] http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-a (it's a bit hidden, see Expectation A2.2 on page 21)

[6] http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code/quality-code-part-b

[7] http://www.qaa.ac.uk/en/Publications/Documents/SBS-Economics-15.pdf para 4.2

[8] http://www.economicsnetwork.ac.uk/handbook/threshold-concepts

[9] See http://www.economicsnetwork.ac.uk/resources

[10] See http://www.core-econ.org/

6. Meeting the demands of your institution

As well as ensuring that your new programme complies with regulatory demands, your institution may well impose other restrictions on the content and delivery of programmes, and you should find out about these as soon as you can. I will just mention a few common things that you may come across.

6.1 Graduate attributes

The issue of how to embed employability into the curriculum is by no means a recent phenomenon, and has become a key part of the mission of many universities. Much of the discussion centred around notions of what is meant by 'graduateness' – i.e. what are the characteristics that we look for in a graduate. Following much debate in Australia in the 1990s, this has developed into a debate about 'graduate attributes'.

The term 'graduate attributes' can be defined as the 'qualities, skills and understandings that a university community agrees its students should develop during their time with the institution and consequently shape the contribution they are able to make to their profession and society'.

A Google search on the phrase 'graduate attributes' shows that many universities in the UK and elsewhere have been devoting enormous attention to the identification of these graduate attributes. A sample list of attributes would be:

- academic attributes
- communication skills
- research and inquiry
- the ability to be a reflective learner
- global citizenship
- ethical leadership.

When designing a curriculum, you should check whether your institution has a graduate attributes framework, as you may be expected to ensure that students have opportunities to develop these attributes within the curriculum, although it may be that some of them will be more readily developed in the co-curriculum. Examples of attributes that can be developed within the curriculum include ensuring that students have opportunities for group work, for giving presentations and for learning about and practising research methods.

Equally important as providing students with opportunities to acquire these attributes is making sure that they are aware that they are acquiring them. Employers have commented that students in interview are often unaware of the skills and attributes that they have been building up during their studies.

Top tip

Check whether your institution defines a set of graduate attributes and whether students need to be given opportunities to acquire these as part of the curriculum.

6.2 Research-led teaching

The relationship between research and teaching has always been contentious, if only because of the tension that exists between competing demands on the time and energy of academic staff. This applies especially strongly in institutions where promotion (and appointment) depend more upon research excellence and publications than upon the ability to deliver learning and teaching effectively. It has been argued that students at a university, whether at undergraduate or postgraduate level, should be exposed to the research that is such a central part of a university's mission. The undergraduate curriculum is thus expected to deliver 'research-led teaching'.

Although there may be a widespread agreement that there should be research-led teaching, there is much less consensus on what this actually means, and it has been interpreted in different ways in different contexts. Broadly, we can identify four different approaches.

At one level, there are many university websites that include statements such as 'you will be taught by experts who are at the cutting edge of their disciplines'. This is one interpretation of research-led teaching. Students will be taught by researchers with a proven track record of excellence. The efficacy of this approach may vary. The mere fact of being taught by an active researcher in itself does not guarantee that the research will rub off on the students. A lecturer may spice up the lectures with anecdotes about research or present some of the results in an accessible way – or simply insist that students read his/her papers. However, the scope for this when teaching introductory mathematics or consumer demand may be limited.

The curriculum must thus present opportunities for researchers to inject research into their teaching. A common way of doing this is through the menu of options provided for students, so that researchers have the opportunity to present units that are closely related to their own area of expertise. It has to be admitted, however, that this form of research-led teaching, valuable as it is, is rather passive from the students' viewpoint.

A second level of research-led teaching is to ensure that the curriculum delivers the skills needed for students to engage in research. A unit in research methods might fit the bill here, and this could be fully or partly assessed by having students prepare a research proposal on a topic of their choice.

A third level would be to require students to engage in a research project or dissertation. This is indeed a common feature of many economics degree programmes. Students can find this one of the most rewarding parts of their programme.

Another rather different interpretation of research-led teaching is that teaching should be informed by pedagogic research. This goes beyond the scope of this chapter, as it is not a curriculum design issue as such. This is perhaps more to do with staff development and the need to expose academic staff to the results of pedagogic research.

6.3 Looking beyond the discipline

For students who proceed from undergraduate studies in economics to take a Master's degree and then follow this up by researching a Ph.D., an undergraduate programme that

focuses on economics alone may provide a good preparation. Perhaps for those who exit after the Master's and become professional economists, an intense focus may also work well. However, for students who enter other careers, such a concentration may produce tunnel vision. Indeed, it could be argued that even for the professional economist or Ph.D., some exposure to the world beyond economics may produce a more rounded and balanced individual. The increasing move towards interdisciplinary research gives further impetus to the desirability of allowing students to look beyond their discipline, and explore the big issues of our day through different disciplinary lenses.

A curriculum can readily be designed to permit this flexibility, given earlier arguments about the ability to achieve the outcomes associated with the subject benchmarks in a subset of the modules that make up a programme.

One approach is through the development of joint honours programmes that expose students to two related disciplines. One disadvantage of this approach is that students may achieve the benchmark levels of knowledge and understanding in each of their two disciplines, but may not have acquired the depth needed to pursue postgraduate work in either of them.

A number of universities are beginning to think more imaginatively about how to broaden the horizons of their students by creating opportunities to be exposed to different ways of thinking about the big issues of our day.

One example is the LSE100 initiative, which is compulsory for all undergraduates at the LSE from 2010-11 onwards. The following extract from the LSE100 guidebook summarises what is on offer:

> 'Whatever your degree course, LSE100 is designed to enhance your experience at the [LSE] by enabling you to complement your disciplinary training with an understanding of different ways of thinking; to learn from debating and collaborating with students from other disciplines and cultural backgrounds; and to strengthen your research and communication skills.'[note 1]

The LSE100 course covers a wide range of topics with contributions that present from a range of different disciplinary perspectives. It sits outside the curriculum, so is not credit-bearing, running in the Lent term of year 1 and the Michaelmas term of year 2. It is graded on a non-numeric basis, with categories of Pass, Merit, Distinction and Fail. The result appears on the student transcript, but does not contribute to degree classification. Part of the assessment is a two-hour unseen written examination, taken outside of term time.

Another initiative was launched by the University of Aberdeen in 2010; it reshaped its curriculum 'to produce graduates who are more rounded, better informed and more intellectually flexible'. The reforms aimed to maintain the 'quality and depth of the traditional Scottish degree', but at the same time expand the range of choice open to students. In the first and second years of their programme, students can choose either to 'study around [your] core subject to gain breadth and context; add a language, a science or business study as an extra subject … or choose from a range of new multidisciplinary course based on real world problems'.

This is an example of encouraging diversification and exposure to new ways of thinking that is embedded within the curriculum, rather than sitting alongside. The Scottish system of four-year degrees makes this an especially attractive way of offering choice and diversity, as there is less pressure to fill the curriculum with disciplinary units.

An example in England is the University of Southampton, which introduced a Curriculum Innovation Programme, aimed at encouraging students to escape from their disciplinary silos and broaden their horizons by taking modules away from their home discipline and to enhance the research-led nature of teaching by introducing students to some of the interdisciplinary research being undertaken in the institution, such as climate change, web science and sustainability. A range of modules was developed, delivered and assessed in innovative ways, with the objective that students are able to choose from a menu of optional modules at some point during their studies.[note 2]

Footnotes

[1] http://www2.lse.ac.uk/intranet/students/LSE100/GuideforFirstYearUGs.pdf

[2] See www.soton.ac.uk/cip

7. Coping with growth of student numbers

A major challenge in curriculum design is coping with the growth in student numbers that has been witnessed in many economics programmes in recent years. Evidence suggests that economics is one of the disciplines with a relatively high earnings premium in terms of lifetime earnings. For example, *The Complete University Guide* in 2017 reported that economists in graduate jobs earned salaries that only fell below those graduating from dentistry, medicine and chemical engineering. We can thus expect the discipline to maintain its popularity.

This has implications for curriculum design. Decisions will need to be made about the balance between core modules and options, and between lectures and class/ seminar group teaching. The big lecture offers economies of scale in delivery of core material, but affects the student experience. Smaller group teaching is costly in staff time, and students do not always appreciate being taught by doctoral students. Hard decisions may need to be made about the number of options that can be provided given student-staff ratios.

The physical infrastructure may have an impact on curriculum design as numbers grow. If the size of the cohort expands beyond the capacity of the largest lecture theatre, then this may necessitate double teaching, or the use of video-streaming. This may influence curriculum design indirectly, by limiting the staff resources available for teaching optional modules. Increasing and improving the use of technology-enhanced and blended learning may be crucial in coping with expansion without damaging the student experience.

More imaginative use of contact time may help. For example, given the extensive use of problem sets and exercises in economics learning, how important is it to run multiple small group classes to go through the answers to problem sets? It may be possible to keep the whole group together, and have a session in which the lecturer presents the solutions to everyone, and then back this up with drop-in surgery sessions with doctoral students. Curriculum design can thus be used to improve efficiency in delivery of learning and teaching.

8. Managing change

In general, we hate change — especially where this is seen as change for the sake of change. We build our lives around routines, reinforced by processes that enable things to happen in predictable ways. Change can be painful because we interrupt these routines and lose predictability. This should not mean that we never change, but it may mean that change is a process that needs to be managed. There is a large and growing literature on the management of change.

Undertaking a major reform of the curriculum is an example of a project for which change should be consciously managed. I would suggest that of most importance in this respect is to have a clear view of the destination. What will the curriculum look like at the end of the process, and what will be the advantages compared with the existing position? Be ready to highlight the benefits that will flow to staff — as well as to students. This is essential if staff are to be expected to devote time to redesigning their teaching alongside meeting REF targets. It helps if there are demonstrable benefits to be gained from reform that could not be tapped by tweaking current structures. It may also help to have a clear timeline over which the reforms will be completed so that life can return to a new normality.

A key decision may be whether to go for a short sharp shock of reform or to go for gradualism. Do we concentrate the misery and settle down, or insinuate the changes drip by drip so nobody notices?

9. Communicating with stakeholders

Let's be honest: curriculum design is not the most exciting topic in the world, and it is not the easiest thing to convey to applicants, students, staff and employers. The previous sections have argued that curriculum design must fulfil a range of objectives. It must ensure coverage of the subject benchmarks. It must deliver a learning experience to students that prepares them for their life as a graduate — in whatever direction they may choose to go after graduation. It must be attractive in offering challenge and flexibility. Graduates from the programme must have the qualities that potential employers are seeking.

Articulating these various qualities to the key stakeholders is a challenge. As soon as we start to explain the credit architecture and component modules, the audience is lost. So save the detail for a sub-page to which people can refer if they need to know. Focus on the key features — and remember when designing the curriculum that simplicity in design will be a major help when it comes to explaining the structure and content of a programme. No doubt individual programmes will also wish to highlight the special features of their offering that are totally unique to them and to them alone, as part of the distinctiveness that characterises their institutions. But I could not possibly comment on that.