Introductory Micro and Macro Economics

Table 1 lists the information we attempted to compile for each university's module in first year economics. Information was collected for modules in microeconomics, macroeconomics and for modules that were composed of both microeconomics and macroeconomics.

Table 1 Information collected in the web-based survey

Information	Comment
Department/School teaching the unit	Mostly Economics, or the Economics group/division within another Department/School
Code for the unit	
Degree	The degree for which information was collected was in most cases for BA (Economics) or BSc (Economics)
Name of module	Generally listed as Introductory Microeconomics and Introductory Macroeconomics. Variations include; Principles in Economics, Elements of Economics, Micro/Macroeconomics 1
Core/optional	This information was not always clear enough to ascertain. Often only a general descriptive account of what the course contained.
Credit points	Varied between 5 and 40 points
Year-long module	Again, this information was not always listed.
Number of established full-time staff on module	This information was difficult to obtain from the websites and often not included on the module information
Number of graduate teaching associates on module	With one or two exceptions, there was no information on the use of staff other than lecturers.
Taught in one semester	Not always stated
Pre requisites	Not always stated
Number of hours of lectures	Explicit information on this was difficult to obtain. It was common practice for the last lecture/week of lectures to be used for revision and the first lecture to be used to outline procedural arrangements for the module. Assessment was often conducted in class time (both formative and summative).
Number of hours of seminars/tutorials	Explicit information on this was also difficult to obtain. Usually seminars/tutorials began in the second or third week and ran every second week.
Number of hours of workshop	Very few modules offered workshops, or at least this is what the web material indicated. Many offered additional mathematics and statistics classes at the start of the first year for those without A-Level Maths.
Number of hours of class contact	This varied greatly between explicit information detailing the contact time and expected student preparation/working hours to nothing at all. Lectures were used also for assessment, for revision purposes or for administration.

Number of teaching weeks	This was usually found from the University calendar since the modules and the student handbooks often did not provide this information.
Use of final exam	Most modules contained a final exam.
Percentage assessment in final exam	Majority of these were 100%
Length of final exam	Varied between 1.5 and 3 hours
Format of final exam	Few, if any, details were ever provided on this
Coursework (summative) assessment	Very few courses contained this.
Number of pieces of coursework (summative) assessment	Often not stated. For many of the modules, it was a requirement that students prepare for tutorials. Unless this was a formal part of the assessment with students required to submit the material to tutors, the tutorial preparation was not included as part of the coursework assessment.
Percentage weighting of coursework assessment for the module	Between 30 and 40%.
Format of coursework (summative) assessment	Coursework assessment often involved a test. Details of the format of the tests were usually not provided (short answer, essay based, multiple choice). Where essays were a part of the assessment, they were usually 1200 – 1500 words in length.
First listed textbook in reading list	Where several texts were listed, the first listed one was recorded. This was not available for all modules.

The availability of information and its level of detail varied enormously between universities. In some universities, module materials (including lecture notes, the teaching mode, assessment exercises, past exam papers and module readings) are easily accessible.[1] In other universities, the availability of material that may be easily accessed is extremely limited, and at others virtually non-existent. In these latter two cases, it was often the case that reference was made to general principles operating either at the level of the university or at the level of the School, Department or Faculty with regard to matters such as assessment policies or to the mode of module delivery. This generic information was not used. In many other cases, access to module web pages or to student handbooks was restricted to students enrolled in the university and was password protected.

There is not a one-to-one correspondence between the number of universities and the number of modules since some universities offered two modules in each of microeconomics, microeconomics or the joint microeconomics and macroeconomics modules.

For many of the modules, information on all of the characteristics was not available. For example, as noted in Table 1, very little information was available on the staff who were involved in the teaching of the modules, and whether they are full time part time or graduate assistants – something that could be a critical piece of information for some prospective students. Even if all of the information listed in Table 1 was not available for a particular module, the modules were included in the study. Consequently, the number of cases is not always the same for each of the factors discussed below.

[1] It should be noted that this was a small minority of the 83 Universities looked at.

Teaching mode used in first-year economics modules

Information was gathered on the number of hours of class contact for lectures, tutorials or seminars and workshops. Information was also collected on the number of teaching weeks in each module.

The lecture is by far the main mode of teaching. In all of the modules for which data were available, only 20.8 per cent of the class-contact hours came from tutorials, workshops and seminars. In other words, about 80 per cent of class contact came from lectures (see Table 2).

Table 2 Percentage of class-contact hours in introductory economics modules allocated to small classes (tutorials, seminars or workshops)

Percentage	Microeconomics		Macroeconomics		Combined Micro & Macro	
	no.	%	no.	%	no.	%
0	0	0.0	0	0.0	4	20.0
10	2	13.3	3	36.4	4	20.0
20	4	26.7	2	18.1	1	5.0
30	4	26.7	5	45.5	5	25.0
40	5	33.3	0	0.0	4	20.0
50	0	0.0	0	0.0	2	10.0
Total	15	100.0	11	100.0	20	100.0

There are several possible reasons for the limited use of tutorials, seminars and workshops,

- The lecture is regarded as the most cost-effective means of teaching students from the university's viewpoint.
- University infrastructure, particularly the availability and size of teaching rooms, may limit the choices available to module administrators to provide for small-group learning.
- The opportunity cost to academic staff of providing additional hours of class contact is high since this reduces the time available for research.
- The availability and suitability of graduate teaching assistants as first-year seminar tutors could be part of the reason for the heavy reliance on lectures. Further, the use of tutorials rather than seminars or workshops may indicate that graduate teaching assistants do not have sufficient training effectively to manage seminars or workshops.
- The publishers of textbooks make many learning aids available to students if they purchase the textbook. Students also have access to a lot of material from the Internet. To some degree, this could substitute for tutorials, workshops and seminars.

Although data were not obtained on the issue of class attendance, most modules required that students attend a certain proportion of hours of class contact to be allowed to sit the end-of-module examination. The optimal level of formal class contact hours will vary with the ability of students. For highly motivated students and students with aptitude for economics, provision of too many hours of formal module contact may be seen to be an inefficient use of time for the academic and for the student. A very small number of universities provide additional classes for students without adequate mathematical background. Attendance at these classes is not mandatory for all students but depends upon the aptitude of the students.

Assessment processes used in first-year economics modules

Assessment plays a key role in the learning process and the way assessment is designed can play a large part in determining whether students engage in deep learning or surface learning. The main mode of assessment used in first-year classes continues to be the end-of-module exam. In 23 of the 83 modules for which information was available, the exam at the end of the module represented over 90 per cent of the assessment, while in a further 44 of the modules, the end of semester test represented between 60 and 80 per cent of the assessment in the module (see Table 3). In 16 modules, the end-of-semester test contributed between 40 – 50 per cent of the marks.

Table 3 Share of final examination in assessment

% share	**Microeconomics**		**Macroeconomics**		**Combined Micro & Macro**	
	no.	%	no.	%	no.	%
40	1	2.8	0	0.0	1	3.7
50 to 59	5	13.9	5	16.1	6	22.2
60 to 75	15	41.7	10	32.3	8	29.6
76 to 80	5	13.8	8	25.8	5	18.5
81 to 90	0	0.0	2	6.5	0	0.0
91 to 100	10	27.8	6	19.3	7	26.0
Total	36	100.0	31	100.0	27	100.0

The information available on the websites on forms and quantities of coursework assessment was sparse. From the data collected, the most usual number of pieces of coursework assessment was between two and five in the case of both microeconomic and macroeconomics modules.

In those modules with two pieces of assessment, the most usual situation was an essay and a test. In the combined micro and macro modules, 33 per cent of the modules had two pieces of coursework assessment and a further 19 per cent had three and four pieces of coursework assessment. This arrangement is not particularly different from the single subject modules offered in one term/semester.

There were three single term/semester modules where the coursework assessment was a portfolio of work. In these modules, information was not available about the nature of these portfolios. There was no evidence from the web material on the modules that students were given guidance in drafting short pieces (such as a one page briefing note), in presentational skills (summarizing the results of an analysis in a series of PowerPoint slides), nor in participating in debates on issues related to economic policy.[2]

Table 5 on the next page contains examples of the ways in which coursework assessment is structured.

[2] The study by Lowe and Cook (op cit) finds that many incoming students are unprepared for the demands of academic study, such as writing reports and giving a verbal presentation to other students. Their study based on an incoming group of first year students at the University of Ulster, indicates that many students find this is a difficult period with over a third of the students struggling to adapt to the change in lifestyle.

Table 4 The number of pieces of coursework assessment in first-year economics modules

Number	Microeconomics		Macroeconomics		Combined Micro & Macro	
	no.	%	no.	%	No.	%
1	5	21.8	11	40.8	1	4.8
2	11	47.9	10	37.0	7	33.4
3	1	4.3	3	11.1	4	19.0
4	3	13.0	3	11.1	4	19.0
5+	2	8.7	0	0.0	2	9.5
Not specified	1	4.3	0	0.0	3	14.3
Total	23	100.0	27	100.0	21	100.0

Table 5 Examples of coursework assessment in introductory economics modules

Form of assessment	Weight of coursework assessment
Essay and problem set, both take home	40%
Two 50 minute in-class tests (only best will count), 1,500 word essay	50%
Six workshop exercises (6%), one essay (14%), multiple-choice test (20%)	50%
Problem-solving class exercises	40%
One 1500 word essay	25%
40-minute mid-term (15%), problem set (15%)	30%
Two one-hour tests, each worth 15%	30%
Two 50-minute in-class tests (each worth 12.5%), 1250 word essay (25%)	50%
45-minute multiple-choice test	25%
One-hour test	10%

The length of the end-of-module exams averaged about 2 hours 10 minutes. A three-hour exam was used (a) in eight of the 40 modules for which data were available and where a single microeconomics module was offered; (b) in six of the 39 modules where a single macroeconomics exam was given; and (c) in 11 of the 20 modules where microeconomics and macroeconomics were taught as a single unit. The median and the modal exam lengths were two hours (Table 6).

Table 6 Examination lengths in end-of-module examination

Length of exam	Microeconomics		Macroeconomics		Combined micro & macro	
	no.	%	no.	%	no.	%
1 hour	2	6.7	1	2.9	1	5.0
over 1 to 1.5 hours	6	20.0	7	20.6	1	5.0
over 1.5 to 2 hours	14	46.6	20	58.8	6	30.0
over 2 to 2.5 hours	0	0.0	0	0.0	1	5.0
over 2.5 to 3 hours	8	26.7	6	17.7	11	55.0
Total	30	100.0	34	100.0	20	100.0

Only a few modules provided information on the form of the final assessment. Examples are:

– six from 10 short answers, two from six essays

– five from seven short answers, two from four essays

– 50% multiple-choice questions, 50% two essays

The lack of details on assessment is surprising since a number of authors argue that the module content should be designed around the assessment.[3] Web sites contained generic information about the objectives of the degree programmes and modules but in most cases this information was not linked back to the form of assessment.

Textbooks

For some modules, recommended textbooks were listed on the module website. In those cases where there was more than one text, the first text mentioned is the one that is recorded if that was given as the prime text: otherwise none is recorded.

It is apparent from Table 7 that a small number of texts dominate the introductory economics market. Begg, Dornbusch & Fisher and Sloman were the authors whose texts were most widely used in the modules for which this information was available. Lipsey & Chrystal and Parkin, Powell & Matthews are also quite widely used. For a small number of modules, the same text was used in first and second level modules. The reason for this is that the first and second level modules had been designed as fully integrated modules.

The textbooks used in introductory modules have a lot of support material for students. This material might be seen as a substitute for formal contact through seminars and tutorial classes. Because the same texts are used for many modules, the depth of study of concepts should be very similar across most modules.

Discussion

The results of this study, from the limited information that was available/accessible, show that most first-year modules are delivered primarily through the use of lectures. The end of module exam – which is most likely to be a closed book two-hour unseen exam – is the main instrument used to gauge student performance. In cases where coursework assessment is used, this tends to be a mid-module in-class test and an essay, usually of 1200 to 1500 words.

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[3] See for example, Miller, Nigel, *Alternative Forms of Formative and Summative Assessment,* The Handbook for Economics Lecturers, 2002, accessible: http://www.economicsnetwork.ac.uk/handbook/

Table 7 Textbooks listed for introductory economics modules

Author	**Microeconomics**	**Macroeconomics**	**Micro & Macro combined**
Atkinson, G.			1
Begg, Dornbusch & Fisher	4	4	5
Besanko & Braeutigan			1
Blanchard		2	1
Burda & Wyplosz		2	
Frank			1
Frank & Bernanke	1	2	
Gravelle & Rees	1	2	
Heijdra & van der Ploeg		1	
Griffiths & Wall		4	
Katz & Rosen	1	3	
Lipsey & Chrystal	3	4	1
Mankiw	1	4	2
Mankiw & Taylor			1
Nicholson	1		
Parkin, Powell & Matthews	4	4	2
Perloff	1		
Perlman			1
Sloman	6	8	4
Stiglitz and Driffill	1		1
Varian	2		1

A limitation of this study was the availability of information. In those cases where it was possible to gain access to teaching materials, it was apparent that these offered a rich source of material that most academics engaged in teaching would find of value. It is surprising that such teaching material is not more widely available. Whilst there may be concerns related to intellectual property rights over the material, public resources have been used in the development of the material. This is an argument for these materials to be freely available.

Many of the modules for which information was not available made use of a virtual learning environment such as WebCt or Blackboard, which are password protected. As more universities introduce password-protected websites, it will become increasingly difficult for lecturers to compare their courses with those of colleagues in other universities. Sharing of practice is thus made more difficult, to the detriment of the student body as a whole. This is an unfortunate consequence of the increased use being made of web-based material by universities in programme delivery.

At the same time, it will become increasingly difficult for prospective students to gain information that will help them in their choice of university and programme. Besides the students' self perception of his or her ability and interest in the area of study, information gained from families, friends, the media, school counsellors and career advisors and universities each play a role in the decision made by students in their choice of universities and degree programmes. The quality and accuracy of this information is highly variable, and different students will use the different sources to varying degrees. There is nothing that can be done about students making use of informal sources of information that may be highly inaccurate. Nonetheless, the existence of this information means that it is critical that universities provide detailed and specific information on their websites to prospective students and make this information freely available and easy to access.

Suggestions for future work

There are a number of areas where additional research could be conducted.

The type of information that prospective students use in their choice of degrees and universities and the ability of prospective students to process this information is an area where recent research is extremely limited. As a consequence, little is known about the information sources used by school leavers. An Australian study published in the late 1990s found from a survey of school leavers that the Internet was used by 42 per cent of survey respondents.[4] This study is now dated. Hence it would be of use to university administrators to know how the use of the web as a source of information about career opportunities has changed. Knowledge of the processes that prospective students go through would aid in the design of web material and help in their decision-making.

The combination of teaching formats (lectures, tutorials, workshops and self-directed study) is likely to be different for students of different abilities. Yet formal lectures represent the most used way of exposing students to the material. There are differences across institutions in the abilities of students. Hence, there may be a case for different institutions using different teaching formats, with different mixes of lectures, tutorials and workshops.

Differences were noted in the assessment procedures used across modules. However, it is not known what motivated the choice of one procedure over another. Related to this, it would be of interest to know how assessment has changed over time, what impact any changes in assessment procedures have had on student learning and the reasons for any change in assessment being made.

Lecturers who drafted the modules provided advice to students on the number of hours of private study they would need to do to perform to their abilities in the examination. Generally, their recommendation was four to five hours of private study for each hour spent in class. It is not known how many students heed this advice.

[4] Ibid.