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# Good economists need more than economics: the multidisciplinary LSE100 course

## Book section

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## CHAPTER TWENTY-ONE

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# Good Economists Need More than Economics: The Multidisciplinary LSE100 Course

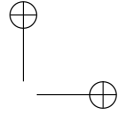
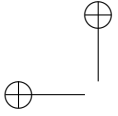
By Jonathan Leape

Many reflections on economics following the financial crisis of 2008 have highlighted concerns about how economics is taught. One concern is that the education of economists has been too narrow and too insular, often leaving our students ill prepared to confront complex 'real-world' problems. This is reinforced by a second concern: that economics students receive too little grounding in reasoning and problem solving based on observations and evidence, or in other words *inductive* approaches. We tend to teach economics on the basis of strong theoretical foundations and logical reasoning from a specific set of assumptions. The seductive elegance and simplicity of this *deductive* reasoning is compounded by our tendency to dismiss inductive approaches as ad hoc. This has contributed to an education that gives short shrift to the inductive aspects of learning from assiduous observation and careful use of data and that fails to instil in our students a critical, questioning approach to the assumptions we make.<sup>1</sup> This lack of attention to reasoning from evidence, and from evidence-based assumptions, has been accompanied by a superficial approach to questions of causality.

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I am profoundly grateful to my LSE100 colleagues, too many to mention individually, for many thought-provoking discussions over the past three years that have deepened my understanding of these issues. For insightful comments on a previous draft of this paper, I would like to thank Juljan Krause. Finally, I would like especially to thank Diane Coyle for her instrumental role in organizing the original workshop and the initiatives that have followed.

<sup>1</sup>Friedman (1953) famously asserted that 'theoretical models should be tested primarily by the accuracy of their predictions rather than by the reality of their assumptions'. Friedman's view has been widely challenged, however, notably by Hicks. The latter argued that economic theories change over time, reflecting the changing cultural, technological and institutional context for economic behaviour, and that economic predictions are, at best, weak claims about what will happen if all other things remain the same. What is more, as Helm (1984) puts it, 'since *ceteris* is almost never *paribus*, a particular set of observations can never, themselves, form the basis for testing an hypothesis'.



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These concerns link to longstanding debates in economics. Keynes gave us the following daunting definition:

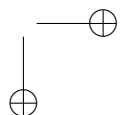
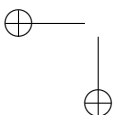
The master-economist must possess a rare combination of gifts.... He must be mathematician, historian, statesman, philosopher—in some degree. He must understand symbols and speak in words.

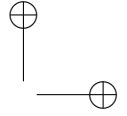
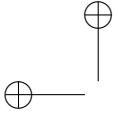
Yet the trend in economics degree programmes has been to increase core requirements at the expense of such breadth. Even for those students whose ambitions fall well short of becoming a ‘master-economist’—who simply wish to apply economic tools to real problems—the need for greater breadth in their economics education has become clear. With respect to the second concern, many would share Keynes’s definition of economics as a ‘science of thinking in terms of models joined to the art of choosing models that are relevant to the contemporary world’. But, while most undergraduate economics programmes can rightly pride themselves on their success in teaching model-based thinking, the equally important challenge of choosing the appropriate theoretical model and the associated need to learn ‘bottom up’ from empirical evidence, not least in assessing the assumptions made, is too often overlooked (see, for example, John Kay’s chapter in this book and Eichengreen (2009)).

These concerns highlight the need to expose economics students to other disciplinary perspectives—other formal ways of thinking—as part of their degree. Not only can this provide them with something closer to the ‘combination of gifts’ required to engage meaningfully with real-world problems, but it can contribute to their understanding of the uses and limitations of theoretical models, as discussed below. It can also, in turn, help teach them about inductive approaches through exposure to disciplines such as history or anthropology, where such approaches are central, giving economics students a wider portfolio of perspectives to bring to bear on new problems.

One way of introducing a multidisciplinary element is through joint degrees. Joint degrees are well suited to those students whose interest in economics is matched by strong interest in another discipline and can provide them with an opportunity to develop a deep understanding of two (or more) distinct approaches. That joint degrees in politics and economics, and in philosophy, politics and economics, are thriving is testimony to the demand for such multidisciplinaryity.

Another strategy is to require all economics students to take some courses in other disciplines (so-called distribution requirements). This



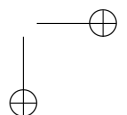
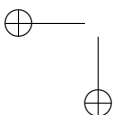


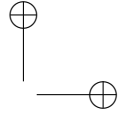
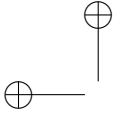
approach also has merit. Distribution requirements can introduce students to alternative disciplinary approaches; indeed, this rationale underlies the ‘liberal arts’ degrees common in the United States. But they do so less systematically and deeply than joint degrees. On the other hand, joint degrees inevitably require some sacrifice in the number of economics courses taken, which is much less of an issue with the more limited distribution requirements.

However, both options suffer from the shortcoming that the different disciplines are typically studied in parallel, often as completely separate silos. As a consequence, while the student benefits from exposure to alternative disciplines, the gains in terms of her understanding of methodological issues and her critical understanding of economics may be limited.

An alternative approach has recently been adopted by the London School of Economics, which has introduced a new, multidisciplinary course that is a compulsory element in all undergraduate degrees. The course is the result of a review of the undergraduate degree programmes that revealed certain concerns shared across the social sciences. First among these was concern at a growing mismatch between the increasing specialization of many of the degree programmes and the intellectual breadth we felt an undergraduate education should provide, not least to enable our graduates to apply their disciplinary training to real-world problems. This message was reinforced by feedback from employers. Our graduates, they reported, had strong disciplinary skills—for economists, strong technical and problem-solving skills—and yet they often struggled when confronted with a new type of problem that called for different methods or a mix of approaches. Moreover, their technical competence was not consistently matched by a similar level of effectiveness in articulating arguments.

We concluded that we could address these problems, while preserving the strengths of our degree programmes, by introducing a compulsory fifth course (spread over the first and second years) that all undergraduates would take in addition to their degree requirements. The central objective of the course would be to broaden students’ intellectual experience at the LSE. Some people were worried that such a course, and the additional workload involved, might risk undermining the depth of understanding achieved by the degree programmes. We believed the reverse to be true, though. We believed that, in the process of giving students greater intellectual breadth, the new course would deepen their critical understanding of their own discipline, as discussed below.





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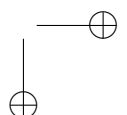
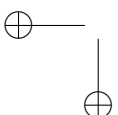
We also believed that introducing students to a variety of disciplinary approaches—to diverse ‘ways of thinking’—would have a range of other benefits for their intellectual development.

A second objective of the course was to address the somewhat haphazard development of research skills across the undergraduate programmes. As we considered the skills required for the social science degrees we offer, it became clear that there was a gap between the skills we expected students to have and the support that was in place to help them develop those skills. We also concluded that there was very substantial overlap between these research-orientated skills and the transferable skills that would best serve our students after they graduate.

When the focus shifted from initial proposal to design and implementation, it was immediately evident that the new course would require a clear framework of aims and learning outcomes (see the box on the facing page). To give meaning and structure to the first aim of intellectual breadth and to integrate both the aims into an overarching set of learning outcomes, it was, in my view, useful to translate the first aim into a set of four ‘methodological’ skills. Using the themes of evidence, explanation and theory, the vague notion of intellectual breadth was translated into a series of skills that serve as accessible learning outcomes for students.

The first of the skills listed in the box focuses on evidence and the need for students to be able to evaluate and interpret different types of evidence, from statistical data to documentary sources, from ethnographic monographs to blogs. A strong focus on evidence underpins the emphasis given to inductive approaches on the course. The second focuses on the research process: that is, on the central role of questions in driving an iterative process between evidence, explanation and theory. Setting out the research process in this way serves to demystify research and underscore the parallels with effective learning and argumentation—which helps to promote identification, interest and commitment on the part of students. The third skill focuses on the need to think formally about the role of causal claims in social science explanations, and the fourth underscores the benefit of applying different disciplinary perspectives to a particular problem.

To this group of methodological skills were added ‘information skills’ and ‘communication skills’, both of which are central to research and study in the social sciences, while also, like the methodological skills, being important transferable skills in future employment. The inclusion of information skills stems from the recognition that, as ‘digital natives’, current students require a particular set of search, evaluation



### **The LSE100 Course: Understanding the Causes of Things**

#### **Aims**

- (i) To deepen and broaden students' understanding of social scientific thinking, focusing particularly on the core themes of evidence, explanation and theory.
- (ii) To strengthen the critical skills that underpin the study and application of the social sciences.

#### **Critical skills and learning outcomes**

##### *Methodological skills*

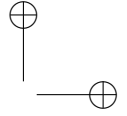
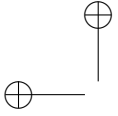
- (1) Evaluate and interpret evidence of different types, including documentary and other qualitative sources as well as statistical data.
- (2) Explain the respective roles of, and interaction between, questions, theories, evidence and explanations in the social sciences.
- (3) Identify and critically assess causal claims in social science explanations.
- (4) Analyse contemporary social problems using theoretical perspectives from more than one social science discipline.

##### *Information skills*

- (5) Find and access information relevant to social science problems, making use of good searching principles and techniques.
- (6) Evaluate information sources, distinguishing scholarly sources from other content and critically assessing information from internet and other sources.
- (7) Manage information—and reduce information overload—using online and other resources as well as appropriate citing and referencing techniques.

##### *Communication skills*

- (8) Construct coherent and persuasive arguments—both orally and in writing—on current issues in the social sciences, structuring the arguments logically and supporting them with relevant evidence.
- (9) Plan and deliver engaging and well-argued presentations that coherently address both question and audience.



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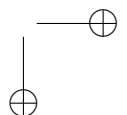
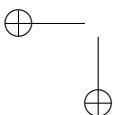
and management skills that were not consistently being developed or supported in the way their existing degree programmes had developed. Under the heading of communication skills, primary emphasis is given to argumentation, using the rhetoric of thesis–justification–support, which supports both the methodological skills and effective communication.

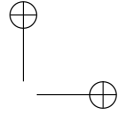
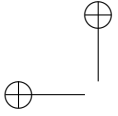
The course is designed around six three-week modules, each of which focuses on an important issue of public debate, with lecturers drawn from at least two different disciplines. In the current programme, for example, these modules are the following.

- How should we manage climate change? (Economics, Political Science)
- Does culture matter? (Anthropology, Economic History)
- Why are great events so difficult to predict? (International Relations, History)
- Who caused the global financial crisis? (Economics, History, International Relations)
- Is population growth a threat or an opportunity? (Development, Social Policy)
- Who should own ideas? (Media, Law)

The use of ‘big’ questions serves both to motivate the exploration of different disciplinary approaches and to underscore the importance of inductive approaches in the course as a whole. In both respects, it is an approach quite different to that of joint degrees or to the use of distribution requirements to achieve intellectual breadth. In both of those cases, additional disciplinary perspectives are introduced but not confronted, so the opportunity to use direct contrasts and similarities between different disciplinary approaches to deepen students’ understanding of methodological issues—and to develop a more critical understanding of their own discipline—may be lost.

While the lectures in the LSE100 course provide the intellectual structure, it is in the small weekly classes that students engage directly with the material and develop their skills and understanding. To support a high level of interaction and feedback, which is crucial to self-reflection and skill development, classes are limited to twelve students. Larger classes could certainly work, although there would, inevitably, be some reduction in the level of feedback provided and it would be somewhat more demanding in terms of the experience and skills required of the teachers. The primary emphasis in the classes is on research methods, and the classes use a highly structured, task-based approach that integrates the





three key skill areas. This structure has been crucial both to making the classes effective for the wide variety of students on the course, coming from thirty-seven different degree programmes (as well as from many different backgrounds), and to enabling the class teachers to teach outside their discipline (many for the first time in their professional lives).

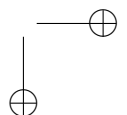
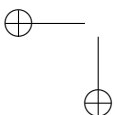
In the current introductory class, for example, students examine how different questions about poverty lead to different measures (e.g. the dollar-a-day measure versus the human poverty index), in turn reflecting different conceptions of poverty (based on income versus multidimensional human development), requiring different kinds of evidence, pointing to different explanations and having different policy implications. Students are then asked to critically assess the United Nations decision to adopt the dollar-a-day measure for the Millennium Development Goal to halve world poverty. It is an important question, since if the human poverty index had been chosen instead, the Millennium Development Goal would not have been met. The key lesson of the class is that methodological choices matter—a theme that runs through the course.

In the ‘culture’ module, students examine the contributions and limitations of ethnography as a research method and then use an ethnographic study of Madagascar to explore the impact of attitudes and beliefs on the effectiveness of a World Bank conservation strategy. This highlights how introducing new types of evidence can broaden the scope of analysis and lead to different conclusions, while also demonstrating the role of different kinds of explanation.<sup>2</sup> Later in the term, students analyse declassified primary source documents from the Kremlin and Central Intelligence Agency and assess the role of agency, structure and ideas in explaining the end of the Cold War. In this they are contrasting the formal methods of international relations, and their emphasis on generalization, with the different types of questions and the primary-source-based methodologies of historians, which highlight the specificities of particular historical events.

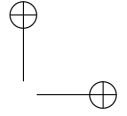
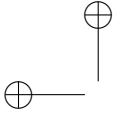
In the module on the financial crisis, students explore causal explanations, first by considering the interpretation and limitations of graphical evidence on individual contributory factors, then by considering evidence for and against Raghuram Rajan’s argument that growing inequality was

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<sup>2</sup>While our economic models provide powerful insights into how extrinsic factors influence the actions of economic agents, ethnographies, for example, provide complementary insights into the meanings people attach to their actions and thereby enhance students’ awareness of economic actors as reflexive agents. In this way, exposure to alternative methodologies serves to enhance economics students’ understanding of both the value of economic models and of their limitations.







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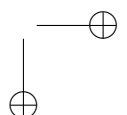
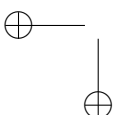
a cause of the crisis (Rajan 2010), and, finally, by exploring the complex combination of factors contributing to the European debt crisis as part of a formal, if stylized, exercise in conjunctural causation.

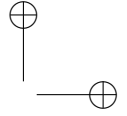
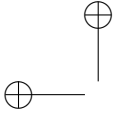
Skill development is embedded not only in classes, but also in the lectures. A series of six ‘special lectures’, one per module, provides a more in-depth treatment of issues such as causality in the social sciences (as part of the financial crisis module), argumentation and the role of questions in research and learning. In addition, LSE100 has used instant voting systems (‘clickers’) to facilitate active learning in lectures, enabling a degree of participation and two-way communication even in very large lectures.

LSE100 has been designed for students from across the social sciences and, in helping all students to develop an awareness of alternative disciplinary approaches, yields common benefits to all of them, regardless of their ‘home’ department. At the same time, the impact and role of the course is different for each discipline.

The multidisciplinary approach aims, in the first instance, to foster economics students’ development of that ‘combination of gifts’ described by Keynes as essential to economic understanding. In other words, introducing students to different disciplinary approaches—especially when applied to the same problem, as in LSE100—is a way to open up their thinking to multiple strands of analysis. No real-world problem fits neatly into an ‘economics’ box: there are elements that can only be fully understood by drawing on the insights and analytical tools of other disciplines. Enabling students to explore new disciplinary approaches and to confront different ways of approaching the same problem can enhance their ability to think creatively about new problems. At the same time, the exposure to alternative disciplinary perspectives can help them to develop a critical understanding of economics.

It can also deepen their understanding of the role and interpretation of models. In introducing second-year microeconomic theory, my colleague Margaret Bray discusses the role of models using the example of the map of the London Underground. The well-known Tube map is a simplified, schematic representation that was designed to help Tube travellers. If you are navigating London by Tube, the Tube map is clear and easy to use. It is a great map (‘model’)—*for that purpose*. But if you try to use the Tube map to navigate London by foot, you may get hopelessly lost, since positions on the Tube map may bear little relation to true geographic positions. The Tube map was designed for the particular purpose of enabling individuals to get around London by Tube. In the same way, economic models





are simplified and stylized representations of particular economic relationships or transactions or institutions, designed to highlight certain relevant features with the aim of understanding those features and their implications more clearly. Introducing students to a variety of different models or theories outside of economics can help them to clarify the role of abstraction in advancing our understanding and to appreciate how theoretical models are inevitably selective. Indeed, it teaches them that they are selective by design: that is what makes them theories.

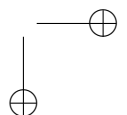
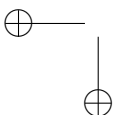
Introducing students to a variety of models drawn from different disciplines can also enhance their understanding of causal explanations. While the introduction to multiple regression takes economics students beyond simple monocausal explanations, they may still confuse correlation with causation. An overemphasis on a narrow range of models may obscure the complexity of economic relationships and transactions, making students less aware of possible confounding influences and the risk of spurious correlation. Causality may be seen simply as a temporal relation by economics students, a notion often given misleading legitimacy through applications of ‘Granger causality’ tests (see Helm (1984, p. 124) and LeRoy (2004) for a discussion of these issues). Exposure to different disciplinary perspectives can foster an awareness of more complex causal explanations that may, for example, involve combinations of necessary and sufficient causes.

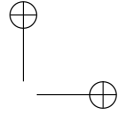
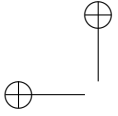
Put another way, the combination of an introduction to alternative disciplinary approaches and a greater emphasis on inductive approaches can increase students’ awareness, as they progress in their studies, of what lies behind the common assumption in economics of *ceteris paribus*. It can help students to understand the nature of the valid causal claims we are able to make as economists and to understand how the complexity of economic interactions limits us, as Hicks emphasized, to weak explanations about the effect of a change in a particular variable *all things being equal* (Helm 1984). Engaging with causal explanations can help students to understand how almost any empirical test in economics is a test of a large number of joint hypotheses, including a related set of theoretical concepts as well as of empirical definitions and measures.<sup>3</sup>

Introducing a multidisciplinary element can also deepen our students’ understanding of economics in other important ways. For example, it

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<sup>3</sup>See Helm (1984) for an insightful assessment of Hicks’s arguments and the related Quine-Duhem thesis. Helm cites the example of Friedman’s permanent income hypothesis as an illustration of how economic claims involve a complex ‘network of theories and beliefs’ and a ‘nest of supporting hypotheses’.





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can foster a greater appreciation of the broader institutional, cultural and historical context for economic analysis and an awareness of how economic behaviour and institutions may consequently change over time.

The approach adopted in LSE100 has its challenges. First among these is designing a curriculum that is accessible and engaging for such a heterogeneous cohort of students, coming from different departments and degree programmes. Another is providing the substantial support and training necessary to enable the class teachers to teach confidently outside of their discipline. Yet another challenge is developing the systems and resources necessary, with a cohort of 1,250 students, to provide the high level of feedback needed to support self-reflection and skill development.

But the approach has also yielded some side-benefits. It provides students with the opportunity to engage in current issues of public debate, which might not otherwise happen in their degree programme, it brings them into contact with leading researchers from across the LSE, and it helps to create a stronger common intellectual experience for undergraduates at the LSE.

By providing students with an opportunity to confront different disciplinary approaches in thinking about important current issues, LSE100 aims to help them to become more independent and critical thinkers, with a better understanding of deductive and inductive approaches and the skills and breadth of thinking they need to apply economics more effectively to real-world problems.

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