

## **2019/0 - ECO-4001A INTRODUCTORY MATHEMATICS FOR ECONOMISTS**

Autumn Semester, Level 4 module

(Maximum 180 Students)

UCU: 20

Organiser: Dr Bahar Ghezelayagh

MODULE - 40% PASS ON AGGREGATE

Module Type: Coursework

Timetable Slot:D3\, H2\

Are you surprised to find that studying economics requires some maths skills? Does this worry you? If so, this module will help you overcome these fears and show you that the maths techniques used in economics are actually not as hard as you might think. This module will provide you with a good grounding in basic mathematical techniques and prepare you for any second and third year modules which require maths skills. You'll learn how to apply your maths in an economic context during the lectures, seminars and in two computer lab sessions in which you'll use Excel. In this module, you'll cover some of the material normally covered in a typical A-level course. At first, you'll develop a basic understanding of linear and non-linear functions, gradually advancing to using differential calculus and constrained optimisation. Throughout the module, you'll focus on the mathematical techniques and their economic applications. In computer lab sessions, you'll learn how to use Excel to draw graphs of functions, solve simultaneous equations and optimisation problems. By the end of the module, you'll be able to correctly identify appropriate mathematical techniques and apply them to economics. You'll also know how to use Excel to solve some mathematical problems and draw graphs of functions. In addition, you'll be well prepared for any second and third year modules which require maths skills.

## **2019/0 - ECO-4002A THE ECONOMICS OF SOCIETY**

Autumn Semester, Level 4 module

(Maximum 180 Students)

UCU: 20

Organiser: Dr Duncan Watson

MODULE - 40% PASS ON AGGREGATE

Module Type: Coursework

Timetable Slot:F2/-A2\ E1

This module emphasises the application of economics to real-world dilemmas. You will focus on how applied economics can be used to study 'wicked problems'. Such problems, sometimes referred to as 'social messes', are often highly confrontational: How can we control problems of crime? Why do societies suffer significant complications arising from drug addiction? How can we reduce deaths from terrorism and war? Exploring the value of the economic approach in transforming policy recommendations, you'll consider how economics can play a crucial part in such debates.

## **2019/0 - ECO-4003A MATHEMATICS FOR ECONOMISTS**

Autumn Semester, Level 4 module

(Maximum 120 Students)





## MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot: E1/, H2

Exam Paper(hrs):2

Exam Period: SPR-02

**BEFORE TAKING THIS MODULE YOU MUST TAKE ECO-4001A OR TAKE ECO-4003A AND TAKE ECO-4005Y AND TAKE ECO-4006Y**

What do a politician, a social media company and a supermarket shopper have in common? They all make choices. But what will they choose? What is a good choice? Should we try to change their choice? Understanding choices and how they are made is critically important. This module will see you explore the ways economists think about making choices. Whether those choices are in the context of uncertainty or interaction with others, you'll develop models for predicting and analysing them. You'll also develop skills of reasoning, argumentation and applying mathematical analysis to solve real world problems. You'll begin by looking at individual decision making, then uncertainty, and finally strategic interaction. Building on your knowledge of basic concepts in microeconomics, you'll become adept at applying mathematical analysis to answer a variety of real world problems, from providing public goods to understanding oligopolistic competition, learning through a mix of lectures, workshops and seminars. You'll also have the opportunity to practice for your future career as an economic consultant via a written assignment, where you'll write a consultant's report on a real-world problem. All areas of economics use microeconomics, so whatever you'd like to study or work with in the future, you'll be well served by this module. You'll complete this module with well-developed logic and analysis skills, as well as a solid grasp of fundamental concepts in microeconomics.

## **2019/0 - ECO-6001A LABOUR ECONOMICS**

Autumn Semester, Level 6 module

(Maximum 54 Students)

UCU: 20

Organiser: Dr Matthew Aldrich

MODULE - 40% PASS ON AGGREGATE

Module Type: Coursework

Timetable Slot: B1/, F1/, F2/|G1\|G1/

**BEFORE TAKING THIS MODULE YOU MUST TAKE ECO-5007A AND TAKE ECO-5007B OR TAKE ECO-5001Y**

The workings of the labour market impact upon your careers, life choices and outcomes. Do you want to understand how the choices you make - for example your education, migration decisions, job type – and even inherent characteristics, such as race and gender – impact upon your success in the labour market? This is a central theme of this module. You will begin by developing an understanding of labour supply (why we choose to work, and how much) and labour demand (how many workers employers hire, and how much they pay for that labour) before examining how individual characteristics, either inherent or through choice, and institutions, such as minimum wage legislation, welfare payments, and the economy, e.g. globalisation and migration, affect both individuals and firms. You will examine education, discrimination, migration, unemployment and trade unions and the way government policy in each of these areas has shaped our economy. By the end of the module, you'll have a better





modern academic microeconomics that are currently influential within the science or in public policy and debate. You'll learn to work with economic models that accommodate uncertainty, asymmetric information, and strategic interaction, and also entail bargaining, cooperation, and collective action. A recurring theme and motivation for such models will be the broader topic of "market design"; the theory and practice of creating and improving processes of collective choice and allocation. Initially, you'll learn through informal analysis – conducted in small groups – of practical microeconomic problems that illustrate wider, deeper questions. You'll then be guided to discover the classical, foundational papers that have addressed these questions, to form your own ideas about these seminal contributions and use the formal theory to tackle further problems. By this process you will gain confidence, experience and a deep, clear comprehension of frontier topics more than befitting a graduating microeconomist.

## **2019/0 - ECO-6006A INDUSTRIAL ORGANISATION AND BUSINESS STRATEGIES**

Autumn Semester, Level 6 module  
(Maximum 54 Students)

UCU: 20

Organiser: Dr Franco Mariuzzo

MODULE - 40% PASS ON AGGREGATE

Module Type: Examination with Coursework or Project

Timetable Slot:A2

Exam Paper(hrs):2

Exam Period:SPR-02

**BEFORE TAKING THIS MODULE YOU MUST TAKE ECO-5007A OR TAKE ECO-5001Y**

Most economic activity is organized by firms, and most firms must compete with rivals to attract consumers. This competition is the essence of a market economy. Microeconomic textbooks tend to focus on price competition in markets with a single price, but a far wider range of strategies is available to modern businesses. Prices can depend on anything from product quality to an individual buyer's browsing history. Firms must make investment decisions in capacity, new production technology, marketing and R&D. The economics of business strategies examines how firms make such price and investment decisions when they must also consider what strategies are likely to be adopted by rivals. Recent public debate has questioned who benefits from a market economy, for example highlighting apparently high prices paid by some consumers. This module provides the foundation for understanding who benefits from competition and we begin to consider the appropriate role of government regulation of competition. A sister module ("Competition in the Digital Age") examines these in more depth and with the added complexity and real world context of the digital economy. This module investigates the nature of competition from a theoretical point of view and an applied policy perspective. The focus is on the strategic behaviour of firms in real markets that are not perfectly competitive. We ask questions like: What competitive weapons do firms use? Which strategies can firms use to soften competition? When are strategies to soften competition good for consumers, when are they bad? What determines whether firms compete or collude within an industry/market? To what extent are mergers driven by efficiency or by market power considerations? Of course, firms differ across a range of characteristics; for example, some supply just one product, while others are active in a multitude of markets; some firms spend heavily on advertising or R&D, while others spend

