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Get Ahead: Stay Ahead

www.bbk.ac.uk/ahead

Helping you get the best possible start to your course

At Birkbeck we want to make sure you get all the help you need to get your studies off to a great start and to provide you with support during your course. On the Get Ahead, Stay Ahead website you can access a range of online resources to help you:

- consider how you can achieve your goals
- find out what studying at Birkbeck is like
- improve your study skills and succeed on your course

The online materials are interactive tutorials that are free to use and you can work through them at your own pace.

www.bbk.ac.uk/ahead
INTRODUCTION

This Handbook is a ‘Users’ Manual’ for your academic programme. It describes the structure of your programme, what resources are available, and how to seek help when you need it. It directs you to the various resources on the Department website (www.ems.bbk.ac.uk) and the College website (www.bbk.ac.uk).

People, and how to reach them..

The Programme Administrator handles all administrative aspects of the Programme, and is usually the first point of contact for students.

Naomi Mintrum (n.mintrum@bbk.ac.uk)
Room: 720 Malet St
Tel: 020 7631 6429
Fax: 020 7631 6416

The Course Lecturers are in charge of academic issues specific to any lecture course, and first point of contact if you need any clarifications or help with the material covered in lectures. The easiest way to initiate contact with your lecturers is via email. The email address of faculty members is on the Department website, and is usually of the form: initial.surname@bbk.ac.uk

Programme Directors are in charge of the academic content of the programme.

- Programme Director for MSc Economics and MSc Financial Economics
  Dr Arup Daripa (a.daripa@bbk.ac.uk)

The Programme Director is the best person to contact if your academic difficulty relates to multiple courses. It is quite helpful to keep us informed of any issues or circumstances (health-related, work-related pressures, etc.) that might affect your performance or continuation on the programme.

Personal Tutors are members of academic staff who can serve as an alternative point of contact. You can talk to your tutor about things like, choice of modules and options on your course of study, difficulties meeting deadlines, and problems outside of Birkbeck that may affect your progress on the programme. To find out who your personal tutor is, see www.ems.bbk.ac.uk/for_students.
Information Technology (IT) Resources

Department IT Resources
The Department of Economics, Mathematics has its own Workstation Room, Room 742, for software specific to economics, finance, mathematics and statistics.

The Department Computer Representative coordinates queries relating to your College computer account and other IT services:

Nigel Foster (n.foster@bbk.ac.uk)
Room 759 Malet St, Tel: 020 7631 6402

The Department Student Help Desk is run by the department computing staff,

Nigel Foster (room 759; tel 020 7631 6402)
Awuku Danso (room 758; tel 020 7631 6433).
Email: helpdesk@ems.bbk.ac.uk at the following times

Term: Mon – Fri 16.00 – 18.00
Vacations: Mon – Thurs 16.00 – 18.00

College IT Resources

Workstation Rooms
For more general software, College ITS manages multiple Workstation rooms in various parts to the College. These include

- College Main Building: Rooms 402, 412, 413, 422, 423 and 536;
- Gordon Square: Rooms 10 and 11, 43

College IT Services Reception/ Help Desk

Ground floor, College Main Building, telephone 020 7631 6543

Term: Mon – Fri 09.00 – 20.00
Vacations: Mon – Fri 09.00 – 18.00
Calendar

Term Dates 2016 – 2017

<table>
<thead>
<tr>
<th>September</th>
<th>Pre-term Quantitative Techniques</th>
</tr>
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<tbody>
<tr>
<td>Autumn term</td>
<td>3 October to 16 December 2016</td>
</tr>
<tr>
<td>Spring term</td>
<td>9 January to 24 March 2017</td>
</tr>
<tr>
<td>Summer term</td>
<td>25 April to 7 July 2017</td>
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The College is closed on specified holidays over Christmas and Easter and on Bank Holidays. For a complete listing, and details of service availability on these holidays, see the College Calendar at [www.bbk.ac.uk/about-us/term-dates](http://www.bbk.ac.uk/about-us/term-dates)

Significant Dates in the Academic Calendar

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<tr>
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<tbody>
<tr>
<td>Final examination for some Autumn Term courses</td>
<td>January 2017</td>
</tr>
<tr>
<td>Deadline for submission of proposal for Econometrics project</td>
<td>January 2017</td>
</tr>
<tr>
<td>Deadline for submission of Econometrics project</td>
<td>May 2017</td>
</tr>
<tr>
<td>Final Examinations</td>
<td>May - June 2017</td>
</tr>
<tr>
<td>Dissertation submission deadline</td>
<td>September 2017</td>
</tr>
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</table>
Programme Structure

Our MSc Programme can be completed in one year (the ‘full-time’ mode) or over two years (the ‘part-time’ mode). Completion of the programme requires you to complete a specified number of modules, for a total of 180 credits.

For those who complete the programme in the part-time mode, the modules follow a specific sequence. Full-time students complete all elements in one academic year. The modules and assessment methods are as follows.

Required modules and sequence

Part-time Year 1

- **Quantitative Techniques** (30 credits, with some elements assessed in year 2)
  Assessed through in-class tests in September (Mathematics in year 1 followed by Statistics in year following)
- **Microeconomics** (30 credits)
  Assessed through in-class tests (20%) and a three-hour exam (80%)
- **Macroeconomics** (30 credits, MSc Economics)
  Assessed through in-class tests (20%) and a three-hour exam (80%)
- **Financial Markets, Banking & Regulation** (30 credits, MSc Financial Economics)
  Assessed through in-class tests (20%) and a three-hour exam (80%)

Part-time Year 2

- **Econometrics** (30 credits)
  Assessed through two exams (66.7%) and a project report (33.3%)
- **Option I** (15 credits)
- **Option II** (15 credits)
  Options are assessed through two-hour exams
- **Dissertation** (30 credits)
  Assessment based on written dissertation

Degree Classification

For those who complete the requirements for the award of an MSc, the award is classified as one of the following: **Distinction, Merit or Pass**. The classification is based on the Common Awards Scheme (CAS). Information about this scheme is at: [www.bbk.ac.uk/registry/policies/documents/cas-16.7.pdf](http://www.bbk.ac.uk/registry/policies/documents/cas-16.7.pdf)

Results

The Assessment is overseen by a Board of Examiners, which meets in July. After the meeting, the Examiners usually give each student an indication of their likely degree classification (that is Distinction, Merit, Pass or Fail), conditional on successful completion of the Dissertation. University Regulations do not allow us to reveal the precise marks at this stage. These are notified routinely by the College in December. Information about the publication of results can be found at: [www.bbk.ac.uk/mybirkbeck/services/administration/assessment/exams/results](http://www.bbk.ac.uk/mybirkbeck/services/administration/assessment/exams/results)
Failure and Re-assessment

Our MSc programmes are quite challenging. The primary method of teaching involves lectures, typically held between 6pm and 9 pm in the evening. These are supplemented with problem-solving classes (mostly in the evening too, but sometimes in the afternoons for full-time students) that allow you to reinforce the principles and techniques covered in lectures. Attending lectures and classes are only part of the overall learning experience. Private study and independent research are crucial – this involves independent reading of texts and journal articles, working through problems and exercises, completing assignments, revising for examinations. Students must devote enough time each week to keeping up with the programme.

Inevitably some students fall short of the challenge. College regulations allow the Board of Examiners to offer students a second attempt at a module that they have not passed. This second attempt may take one of the following forms:

- **Re-take** for modules where a student obtained less than 40% at first attempt. In this case the student will be required to re-enrol on the module, attend lectures and classes and retake all the assessment associated with that module. **Students re-taking a module will be charged for that module.**

- **Re-assessment** for modules where a student obtained between 40% and 49% on the first attempt. The student is not required to attend lectures and will only need to re-attempt any failed element of that module (in most cases, the examination). The re-assessed mark will be capped at a pass (50%).

The earliest you can retake or seek re-assessment is the subsequent academic year. The content of courses evolves from one year to the next, and it is your responsibility to keep track of any variations in the material. If you require further guidance about re-assessments, please contact the Programme Director.

Please note students cannot seek reassessment purely to improve their performance in a module that they have already passed.

For further information about the Exam and Assessment procedures at Birkbeck, please see:
http://www.bbk.ac.uk/mybirkbeck/services/administration/assessment

Further information can be found in the 'Common Award Scheme Regulations' document located on the Birkbeck website:

www.bbk.ac.uk/registry/policies/documents/cas-16.7.pdf
### Compulsory modules

#### MSc Economics

<table>
<thead>
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<th>CODE</th>
<th>Title</th>
<th>Credits</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUEM027S6*</td>
<td>Quantitative Techniques</td>
<td>30 credits</td>
<td>September</td>
</tr>
<tr>
<td>EMEC024S7</td>
<td>Microeconomics</td>
<td>30 credits</td>
<td>Autumn</td>
</tr>
<tr>
<td>EMEC025S7</td>
<td>Macroeconomics</td>
<td>30 credits</td>
<td>Spring</td>
</tr>
<tr>
<td>EMEC026S7</td>
<td>Econometrics</td>
<td>30 credits</td>
<td>Autumn &amp; Spring</td>
</tr>
<tr>
<td>BUEM032S7</td>
<td>Dissertation</td>
<td>30 credits</td>
<td>Summer</td>
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</table>

#### MSc Financial Economics

<table>
<thead>
<tr>
<th>CODE</th>
<th>Title</th>
<th>Credits</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUEM027S6*</td>
<td>Quantitative Techniques</td>
<td>30 credits</td>
<td>September</td>
</tr>
<tr>
<td>EMEC024S7</td>
<td>Microeconomics</td>
<td>30 credits</td>
<td>Autumn</td>
</tr>
<tr>
<td>EMEC055S7</td>
<td>Financial Markets, Banking &amp; Regulation</td>
<td>30 credits</td>
<td>Spring</td>
</tr>
<tr>
<td>EMEC026S7</td>
<td>Econometrics</td>
<td>30 credits</td>
<td>Autumn &amp; Spring</td>
</tr>
<tr>
<td>BUEM030S7</td>
<td>Dissertation</td>
<td>30 credits</td>
<td>Summer</td>
</tr>
</tbody>
</table>
Module BUEM027S6

Quantitative Techniques
Compulsory module (30 credits) for Full-Time, Part-Time 1 and Part-Time 2

Course Aims and Objectives
This course reviews the core mathematical and statistical tools essential for the MSc programme. On completing the course, you should be able to:

- use matrices for algebraic manipulations;
- use the techniques of static and dynamic optimization;
- compute definite and indefinite integrals;
- solve simple difference and differential equations; and
- understand the basic of probability distributions and statistical inference

Course Pre-requisites: none

Teaching Arrangements and Assessment
The course is taught as three sub-modules. Part-time students
- cover basic mathematics in their first year, in September
- study static and dynamic optimization, later that year
- review statistical techniques, in their second year, in September

Full-time students cover all elements in one year.

Course Assessment
Performance in these modules is assessed through in-class tests in September and coursework later in the year You MUST pass the September examinations in order to proceed to the MSc programme.

Textbooks
Lecture notes are provided but most students find it helpful to use a textbook to supplement these. We do not recommend any particular text, but in the past students have found the following useful.

Module EMEC024S7

Microeconomics
Compulsory module (30 credits) for Full-time and Part-time 1
Autumn Term

COURSE AIMS AND OBJECTIVES
This core course aims to familiarise students with basic tools in microeconomic theory, and enable them to apply these tools to solve problems in public policy. An important aim of the course is to demonstrate the art of formal modeling which requires simplifying a problem by identifying the key elements without oversimplifying and trivializing the issue. On completing this course students should be able to demonstrate that they:

• can solve the optimisation problems faced by consumers and producers under certainty as well as uncertainty;
• can derive the general equilibrium of specific economies;
• can explain firms’ behaviours under market power;
• can apply the basic solution concepts in game theory;
• can solve for optimal contracts under adverse selection and moral hazard;
• can solve for optimal bidding behaviour in standard auctions;
• can explain the effect of externalities and public goods;

COURSE PRE-REQUISITES: Quantitative Techniques (BUEM027S6)

COURSE ASSESSMENT
Coursework counts for 20% and the final examination for 80%. The coursework assessment is the higher mark of the two ‘in-class’ tests held during term.

TEXTBOOKS
A set of lecture notes will be provided.

• Mas-Colell, Whinston and Green, Microeconomic Theory, OUP, 1995
• Kreps, A Course in Microeconomic Theory, Prentice Hall, 1990
Module EMCE025S7

Macroeconomics
Compulsory module (30 credits) for MSc Economics, Full-time and Part-time 1
Spring Term

AIMS AND OBJECTIVES

This course aims to familiarise students with tools in macroeconomics, and enable them to apply these tools to understanding how the economy works, forecasting and analysing public policy. Having successfully completed this course, students will be able to:

- understand the relationship between the key macroeconomic aggregates such as output, inflation, employment, and interest rates;
- understand how the interaction of firms and individuals in goods and input markets generates aggregate outcomes in the short run, the medium run and the long run;
- understand the dynamics of consumption, output and inflation, the role and the design of monetary policy, the importance of data, parameter and model uncertainties in macroeconomic modelling.

COURSE PRE-REQUISITES: Quantitative Techniques, EMCE024S7

COURSE ASSESSMENT

Coursework counts for 20% and the final examination for 80%. Coursework takes the form of an assignment to be completed over the Easter break.

TEXTBOOK


COURSE OUTLINE

1. The Long Run – Economic Growth
   Capital Accumulation, Growth and the Golden Rule.
   Overlapping-generations Models
   Endogenous and Empirical Growth Models
2. The Medium Run – Imperfections in Goods, Credit and Labour Markets
   Persistent Unemployment and the Natural Rate of Unemployment
   Imperfect Competition and Mark-ups
   Credit Rationing and Financial Stability
3. The Short Run – Business Cycle Theories
   Theories of Consumption
   Real Business Cycle models
   Lucas Imperfect Information Model
   New Keynesian Models
   Uncertainties in Monetary Policy Design
Module EMEC055S7

**Financial Markets, Banking & Regulation**

Compulsory course for MSc Financial Economics, Full-time & Part-time 1
Spring Term

**Aims and Objectives**

In this course we use theoretical and historical approaches to explain why banks and financial markets are inherently vulnerable to crises and to analyze the role of policy and institutions. Building on basic training in microeconomics, we introduce theoretical models where frictions such as asymmetric information and coordination failures create a role for intermediaries and produce problems such as bank runs, asset price bubbles and herding. We examine the role of monetary policy, bank supervision and regulation, corporate governance and ratings agencies in mitigating or exacerbating bad outcomes. We discuss policy proposals for dealing with financial crisis.

**Course Prerequisites:** *Quantitative Techniques* (BUEM027S6), EMEC024S7

**Course Assessment**

Coursework counts for 20% and the final examination for 80%. The coursework takes the form of an assignment to be completed over the Easter break.

**Background Reading**

We will rely on a combination of articles from academic journals and the popular press, but the following books are useful as background reading:

- Krugman, P., *The Return of Depression Economics and the Crisis of 2008*

**Course Outline**

- A history of bubbles and banking crises.
- Adverse selection and moral hazard in financial markets.
- Coordination failures: how self-fulfilling expectations can lead to bank runs, contagion and bubbles.
- Herding in markets
- Individual remuneration and the culture of banking.
- Banking in small economies: the Icelandic banking crisis.
- Securitisation
- Sovereign debt
- The role of government: central bank as market-maker of last resort;
- Financial regulation: Basel III and beyond
- The role of private debt in prolonging crises
Module EMEC026S7

**Econometrics**
A compulsory course (30 credits) for Full time and Part-time 2 Autumn and Spring Terms

**AIMS AND OBJECTIVES**
This course provides an introduction to theoretical and applied econometrics. It emphasizes time-series methods in the first term, and cross-section and panel data methods in the second term. The course, especially the project, aims to help you in actually doing applied econometrics. This involves combining economic theory, statistical methods and an understanding of the data, with the ability to use the appropriate software and interpret the output.

At the end of the course students will be able to demonstrate that they can:

- derive standard estimators (OLS, ML, GMM, IV/2SLS) and understand their properties;
- explain the basis for standard exact and asymptotic tests and use them in practice;
- develop and analyse basic univariate and multivariate time-series models for integrated and cointegrated data and know how to choose between alternative models;
- develop and analyse cross-section and cross-section static and dynamic panel data model, with an in-depth discussion of the treatment of endogeneity issues;
- use standard econometrics packages and interpret their output;
- read, understand and explain empirical articles in the literature of the sort that appear in the *Economic Journal* or *American Economic Review*;
- conduct and report on an independent piece of empirical research that uses advanced econometric techniques.

**COURSE PRE-REQUISITES: Quantitative Techniques (BUEM027S6)**

**ASSESSMENT**
Two thirds of the marks come from exams held in January and June, and one third from an empirical project that must be submitted after Easter.

**INDICATIVE READING**
A course booklet will be distributed, which will contain a fuller reading list.

- Marno Verbeek's *A guide to modern econometrics*, 3rd edition, Wiley 2008 covers most of the material in the course at a similar level.
AIMS AND OBJECTIVES

The Dissertation requires students to apply the techniques and knowledge acquired from the taught courses. Students choose their own topic and must show that they:

• have a good knowledge of the relevant literature on their chosen topic;
• can identify an interesting question associated with that topic and analyse this question either in a new way or with new data;
• can demonstrate a good grasp of techniques (statistical, numerical or theoretical) relevant for analysing the question;
• can present the results of their analysis in a clear and convincing manner, within the word limit (8,000 words excluding bibliography)

There are three routes students might choose for the dissertation.

1. Extend their Econometrics project;
2. Develop a topic from one of their option courses in conjunction with the option course lecturer;
3. Do an independent topic in consultation with a member of staff.

Any subject that relates to material covered in the Programme is admissible, but it is generally sensible to stick to projects that contain a substantial amount of statistical or numerical analysis. Theoretical projects are more difficult although occasionally students are able to produce good work of this type. Purely institutional topics are not permitted.

On data, it is important not to be too ambitious. Often students spend inordinate amounts of time collecting large datasets and then find they have no time to perform analysis. Interesting analysis motivated by some genuine, substantive question earns high marks. Whatever is done, it is important that students time their work realistically. Aiming to complete the report in the last fortnight before the deadline is a recipe for trouble. If you are unfamiliar with econometric packages, everything takes longer than you expect. A good source of financial and economic data is DataStream, which can be accessed using a computer in the Library.

STRUCTURE OF A DISSERTATION

All dissertations should have:

1. a well-defined research question about the topic;
2. a review of the relevant literature showing familiarity with recent published research;
3. a review of the theoretical issues relevant to the topic;
4. a review of the empirical evidence relevant to the topic. This may (but need not) include econometrics. It could look at history, institutions, case studies, etc. Even theoretical dissertations need some empirical context. If students do econometrics they need to follow the econometrics project rules, provide data etc.
5. clear conclusions which discuss the extent to which they have answered the question posed;
6. adequate referencing and a clear academic literary style.

**SCHEDULE**

Students must first submit a one-page proposal. This proposal should state the basic idea of the project, what data and computing facilities will be required and whether or not these are known to be available.

The dissertation is intended to demonstrate their ability to work independently. Students are encouraged to seek advice from faculty members before end June. To facilitate this, we will assign a faculty “point of contact” based on the proposal submitted. July and August are for completing the research, and for writing up the Dissertation. The dissertation has a limit of 8,000 words. Note that many staff members are away in July and August; therefore it is advisable to get in touch with your point of contact as early as possible.

**SUBMISSION GUIDELINES**

- Online submission via Moodle, with hard copy (unbound) submitted as backup;
- Data and code files to be uploaded on Moodle;
- Format: font and spacing should be clear;
- Referencing should be included.

**Important Dates**

<table>
<thead>
<tr>
<th>Date Type</th>
<th>Date</th>
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<tbody>
<tr>
<td>Dissertation proposal deadline</td>
<td>May 2017</td>
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<tr>
<td>Dissertation submission deadline</td>
<td>29 September 2017</td>
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Options

MSc Economics / MSc Financial Economics

<table>
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<th>CODE</th>
<th>Title</th>
<th>Credits</th>
<th>When</th>
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<tbody>
<tr>
<td>EMEC035H7</td>
<td>Advanced Economic Theory I (Game Theory)</td>
<td>15 credits</td>
<td>Autumn</td>
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<tr>
<td>BUEM043H7</td>
<td>Corporate Finance</td>
<td>15 credits</td>
<td>Spring</td>
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<tr>
<td>EMEC035H7</td>
<td>Advanced Econometrics</td>
<td>15 credits</td>
<td>Spring</td>
</tr>
<tr>
<td>BUEM033H7</td>
<td>Forecasting Economic &amp; Financial Time Series</td>
<td>15 credits</td>
<td>Spring</td>
</tr>
<tr>
<td>EMEC033H7</td>
<td>Industrial Economics</td>
<td>15 credits</td>
<td>Summer</td>
</tr>
<tr>
<td>EMEC029H7</td>
<td>International Economics I (International Macroeconomics)</td>
<td>15 credits</td>
<td>Autumn</td>
</tr>
<tr>
<td>EMEC030H7</td>
<td>International Economics II (International Trade)</td>
<td>15 credits</td>
<td>Spring</td>
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</table>

Not all options run each year. Part-time MSc students can also take the Spring Term course in Financial Markets, Banking & Regulation (EMEC055S7) as a 30-credit option.
Module EMEC031H7

**Advanced Economic Theory I: Game Theory**

An optional module (15 credits) for Full-time and Part-time 2
Spring Term

**Aims and Objectives**

This option aims to familiarise students with certain advanced tools of non-co-operative game theory. The course will have three major components: (1) solution concepts for static and dynamic games of incomplete information; (2) auctions; and (3) design of antitrust policy. At every stage, each new theoretical concept will be illustrated in the context of specific economic applications.

By the end of the course, students should be able to apply game theoretic skills to simple economic problems.

**Course pre-requisites:** Quantitative Techniques (BUEM027S6), EMEC024S7

**Assessment**

A two-hour examination.

**Recommended Texts**


In addition to textbooks, a significant portion of the course will be based on academic papers.

**Course Content**

1. Solution concepts for static and dynamic games of incomplete information:
   - Review of Nash Equilibrium.
   - Static games of incomplete information: Bayesian Nash equilibrium and the equivalence of games of incomplete information to games of imperfect information (Harsanyi’s approach).
   - Dynamic games with imperfect (or incomplete) information: beliefs and sequential rationality; perfect Bayesian equilibrium; reasonable beliefs.

2. Auctions:
   - Auctions with independent private values; Revelation Principle.
   - Auctions with interdependent values; Linkage Principle.
   - Applications: bidding in online auctions, collusion in simultaneous second price auctions, mergers in auction markets.

3. Antitrust in Innovative Industries
Module EMEC029H7

**International Economics I: International Macroeconomics**

An optional module (15 credits) for Full-time and Part-time 2 
Autumn Term

**AIMS AND OBJECTIVES**

This option aims to provide a comprehensive treatment of the modern macroeconomic analysis of open economies, introducing analysis of the balance of payments and exchange rate determination, and policy problems in the design of monetary policy and choice of exchange rate regime.

Students will be able to demonstrate that:

- they are familiar with key issues in international macroeconomics, the history of international financial arrangements, and exchange rate regimes;
- understand current issues concerning the determination of exchange rates and their volatility, international monetary integration and global imbalances.

**COURSE PRE-REQUISITES: Quantitative Techniques (BUEM027S6)**

**COURSE ASSESSMENT**

A two-hour examination

**RECOMMENDED TEXTS**


**TOPICS**

1. Stylised Facts and Global Imbalances  
2. Current Account Determination in an Endowment and Production Economy  
4. Exchange Rate Determination: Monetary Models  
5. Lucas Model  
6. Mundell-Fleming Model  
7. New Open Economy Macroeconomics: Redux Model  
8. New Open Economy Macroeconomics: Pricing to Market
EMEC030H7

**International Economics II: International Trade**

An optional module (15 credits)
Spring Term

**Course Aims and Objectives**

The first objective is to describe models of trade, its causes and welfare effects. The emphasis in this section of the course is on explaining why countries trade and what are the effects of trade on wages, prices, and production patterns. The second objective is to understand strategic trade policy and commercial policy. This includes the discussion of the political economy of trade policy. The goal is that at the end of this course you can better evaluate and discuss actual trade policy. The third objective is to explore empirical tests of trade theory, in order to understand the methods by which trade theories are tested and to gain familiarity with the findings in the literature.

**Course Pre-requisites:** a MSc level course in microeconomics and in quantitative techniques

**Assessment**

A two-hour examination.

Problem sets are listed below corresponding to reading and lecture. You are encouraged to complete them as we progress. The problems are indicative of exam material. Answers will not be posted but will be reviewed in the weekly meetings.

**Recommended Texts**

The following is the required book for the course:


In addition to the textbook, and in preparation for potential dissertation topics, there is a supplemental reading each week which may be discussed in class, as noted on the schedule.

Additional Reading and Resources:

- Annual Review of Economics
  [http://www.annualreviews.org/loi/economics](http://www.annualreviews.org/loi/economics)
- VoxEU (search for trade topics): [http://voxeu.org/](http://voxeu.org/)
EMEC035H7

**Advanced Econometrics**
An optional module (15 credits) for Full-time and Part-time 2
Spring Term

**Aims and Objectives**
This option covers econometric topics at a slightly more advanced technical level. The aim is to introduce students to selected linear and nonlinear econometric techniques that are used on cross-section and panel data, with applications in demand analysis and empirical industrial organization. Students who complete this course successfully will be able to demonstrate that they can:

- understand the principles and numerical methods for non-linear estimation using Maximum Likelihood (ML) and Generalized Method of Moments (GMM);
- choose appropriate models for non-standard data (e.g. panel, limited dependent variable, ordered, count and duration data) and proceed to estimate these models based on the likelihood function or conditional and unconditional moment conditions for those models;
- understand the implications of unobserved or latent variables for the observed data and use this understanding in modeling;
- derive properties of ML and GMM estimators based on asymptotic arguments as well as the bootstrap;
- apply some such models in the context of applied demand analysis and certain applications in empirical industrial organisation.

**Course Prerequisites:** Quantitative Techniques (BUEM027S6)

**Assessment**
A take-home examination (referee report on empirical paper) and a one-hour examination.

**Course Outline**
1. Maximum Likelihood Estimation: Asymptotic Theory and Computational Aspects
2. Applications: Qualitative and Limited Dependent Variable Models; applications in empirical Industrial Organisation
3. Generalized Method of Moments
4. Quantile Regression
5. Bootstrap

**Indicative Reading**
A reading list with suggested textbook chapters and journal articles will be distributed, and the additional reading is covered in the same books as listed in the compulsory Econometrics course.
EMEC050H7

**Finance I (Corporate Finance)**
An optional module (15 credits) for Full-time and Part-time 2
Spring Term

**AIMS AND OBJECTIVES**
This module aims to provide a robust understanding of corporate finance, with particular application to business decisions. It examines how firms raise external finance and design their capital structure. Using the Modigliani Miller theorem to identify conditions under which capital structure is irrelevant as a benchmark, it explores optimal debt/equity mix in the presence of real world conditions. It develops the agency problem within firms, focusing on incentives of firms’ insiders and outsiders.

By the end of this module students should:
- Understand various forms of business organisation and corporate governance
- Understand the dividend policy of firms
- Understand the theory and practice associated with capital investment decisions, including the theory of real options
- Understand the sources of business and financial risk and how they can be managed
- Understand capital structure of firms and implications
- Understand mergers and acquisitions, and corporate restructuring

**COURSE ASSESSMENT**
A two-hour examination.

**Readings**
EMEC033H7

**Industrial Economics**
An optional module (15 credits) for Full-time and Part-time 2
Summer Term

**AIMS AND OBJECTIVES**
This option covers a selection of topics in the theory of industrial organization and implications for policy. The course builds on basic economic microeconomic theory, especially game theory, to analyse alternative forms of market structure, the possibility of collusion between firms, patterns of price discrimination. It analyses the design of auctions and networks. We also cover the design of regulatory and competition policy, including case studies.

**COURSE PRE-REQUISITES: Quantitative Techniques (BUEM027S6)**

**COURSE ASSESSMENT**
A two-hour written examination

**RECOMMENDED TEXTS**
The course will require you to read a selection of academic papers. Handouts will be provided, but these can be supplemented with textbook treatment of some topics, using text such as


**LIST OF TOPICS**
1. Oligopoly and collusion
2. Price discrimination
3. Economics of technology choice
4. Auctions
5. Advantageous Selection
6. Networks
7. Competition economics
8. Price cap regulation
9. Cost of Capital
10. Universal service obligations
BUEM033H7

**Forecasting Economic and Financial Time Series**

An optional module (15 credits) for Full-time and Part-time 2

Spring Term

**AIMS AND OBJECTIVES**

This module examines the principles and practice of forecasting economic and financial time series for decision making in government and business. The first part of the course will cover the basics of point forecasts and their statistical evaluation. The second part will cover more advanced techniques designed to construct, combine and evaluate forecast densities. We make use of the EViews software to build forecasting models and to make and assess forecasts.

Students who complete the course should be able to:

- use a range of models to produce point forecasts of economic and financial variables;
- undertake both economic and statistical evaluation of point forecasts;
- understand the limitations of point forecasts and be able to quantify forecast uncertainty through the use and evaluation of density forecasts.

**COURSE PRE-REQUISITES: Quantitative Techniques (BUEM027S6)**

**COURSE ASSESSMENT**

A two-hour examination.

**RECOMMENDED TEXTS**

- Clements, MP & DF Hendry (Eds.), *A Companion to Economic Forecasting*, 2002, Blackwell, Oxford
- Elliot, G, Granger, CWJ. &Timmermann, A, (Eds.), *Handbook of Economic Forecasting*, Volume 1, 2006, North-Holland
Get Ahead: Stay Ahead
www.bbk.ac.uk/ahead

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