Faculty of Applied Economics Exchange Programme

Courses 2017 - 2018





# **Overview courses offered**

### Accounting

Advanced Management Accounting and Control (BA, 6 ECTS, 2nd semester) Risk Management and Internal Control (BA, 6 ECTS, 1st semester) Accounting Ethics (MA, 6 ECTS, 2nd semester) Current Topics in Accounting (MA, 3 ECTS, 2nd semester) Financial Statement Analysis (MA, 6 ECTS, 1st semester) Tax Management (MA, 3 ECTS, 1st semester)

### **Development studies**

Debating Development (BA, 3 ECTS, 1st semester) Topics in Development Studies (BA, 3 ECTS, 1st semester) Economic and Institutional Development (MA, 6 ECTS, 1st semester)

### **Economics and Economic Policy**

Current Issues in Economic Policy (BA, 6 ECTS, 2nd semester) Economic Policy (BA, 6 ECTS, 2nd semester) International Economics (BA, 6 ECTS, 2nd semester) Issues in Global Economics (BA, 6 ECTS, 1st semester) Optimisation in Economics (BA, 6 ECTS, 1st semester) Applied Welfare Economics (MA, 6 ECTS, 1st semester) Economic Analysis of Inequality (MA, 3 ECTS, 1st semester) Financial Intermediation and Regulation (MA, 6 ECTS, 1st semester) Health Economics (MA, 3 ECTS, 1st semester) Industrial Organisation (MA, 6 ECTS, 2nd semester) Labour Economics (MA, 6 ECTS, 1st semester) Monetary Economics (MA, 6 ECTS, 2nd semester) Open Economy Macroeconomics (MA, 6 ECTS, 1st semester) Public Finance (MA, 6 ECTS, 2nd semester) Real Options (MA, 3 ECTS, 2nd semester) Transport, Mobility and the Environment (MA, 3 ECTS, 2nd semester)

### Finance

Investment Analysis (BA, 6 ECTS, 1st semester) Banking (MA, 6 ECTS, 2nd semester) Corporate Finance and Governance (MA, 6 ECTS, 1st semester) Financial Engineering (MA, 6 ECTS, 2nd semester) Financial Risk Management (MA, 6 ECTS, 2nd semester) Insurance (MA, 6 ECTS, 2nd semester) International Financial Management (MA, 6 ECTS, 1st semester)

# **Overview courses offered**

### International management

Business in the European Union (BA, 6 ECTS, 2nd semester) I-Week: Challenges for Business (BA, 3 ECTS, 2nd semester) Foundations of International Business (BA, 6 ECTS, 1st semester) Current Issues in International Business (MA, 3 ECTS, 1st semester) Intercultural Communication in the Business World (MA, 3 ECTS, 2nd semester) Strategy, Structure and Management of the Multinational Enterprise (MA, 6 ECTS, 2nd semester) The Economics and Institutions of International Business (MA, 6 ECTS, 1st semester)

### Management

Competitive Strategy (BA, 6 ECTS, 2nd semester) Organisational Behaviour (BA, 6 ECTS, 1st semester) Sales Management (BA, 3 ECTS, 2nd semester) Social and Organisational Psychology (BA, 6 ECTS, 2nd semester) Business Administration: Capita Selecta (MA, 6 ECTS, 2nd semester) Ethical and Sustainable Business (MA, 3 ECTS, 2nd semester) Organisational Theory and Design (MA, 6 ECTS, 2nd semester) Strategic Management (MA, 6 ECTS, 1st semester) Strategy Implementation and Control (MA, 6 ECTS, 1st semester) Sustainability Management (MA, 3 ECTS, 2nd semester)

### Management Information Systems

Digital Organisation (BA, 6 ECTS, 1st semester) Capita Selecta in Enterprise Engineering (MA, 6 ECTS, 2nd semester) Capita Selecta in IT Governance (MA, 6 ECTS, 2nd semester)

### Marketing

Consumer Behaviour (BA, 6 ECTS, 2nd semester) Omnichannel and Digital Marketing (BA, 6 ECTS, 1st semester) Business-to-Business Marketing (MA, 3 ECTS, 1st semester) Current Topics in Marketing (MA, 3 ECTS, 1st semester) Marketing Communication (MA, 3 ECTS, 2nd semester) Marketing Management (MA, 6 ECTS, 1st semester) Product and Price Management (MA, 6 ECTS, 2nd semester) Services Marketing (MA, 3 ECTS, 2nd semester)

# **Overview courses offered**

### **Research methods**

Heuristics for Economics Students (BA, 3 ECTS, 1st semester) Heuristics for Economics Students (BA, 3 ECTS, 2nd semester) Introduction to Econometrics (BA, 6 ECTS, 1st semester) Applied Econometrics (MA, 6 ECTS, 1st semester) Financial Econometrics (MA, 3 ECTS, 2nd semester)

### **Transport economics**

Regional and Urban Economics (BA, 3 ECTS, 2nd semester) Transport Economics (BA, 3 ECTS, 2nd semester) Seminar Maritime Technology (MA, 3 ECTS, 2nd semester)

# Accounting Advanced Management Accounting and Control

## BA, 6 ECTS - 2nd semester

### Prerequisites

Basic knowledge of economics, business administration and research methodology. In addition the student needs to be familiar with the core elements of financial accounting and reporting (i.e. technique of double entry bookkeeping and the contents of the financial statements) and the student needs to master the techniques of cost accounting and the fundamentals of management accounting and budgeting (cost and management accounting).

#### **Course contents**

The course starts with a description and analysis of the major types of control systems namely action control, results control, personnel control and social control. Next, attention will be paid to the alignment between the three types of control used in an organisation and the incentive and reward systems. Subsequently attention will be paid to the design of a management control system which is appropriate according to the strategy, mission and characteristics of the organisation. Attention will be paid to the direct costs of the design and implementation of the management control system as well as to the indirect costs (behavioural effects, etc.) involved. Next the course will analyse in depth the different financial control. Several chapters and lectures are devoted to the set-up of a management control system in multinational companies, the topic of transfer pricing will be discussed in this context. Finally the set-up of management control systems in non-profit organisations and governments will be compared to the set up in profit companies. Also control by the shareholders and the concept of corporate governance will be touched upon in this course.

# Accounting Risk Management and Internal Control

BA, 6 ECTS - 1st semester

### Prerequisites

Basic knowledge of economics, business administration and accounting.

#### **Course contents**

Risk Management and Internal Control introduces students to the principles of risk management and provides a discussion on the causes and consequences of internal control problems in a wide variety of organisations. To this end, this course is structured along the lines of the COSO (2004) Enterprise Risk Management Framework. The course uses a case-based approach.

This course aims to give you an understanding of the importance of risk management and internal control, to confront you with the challenges and difficulties in assessing risks and implementing suitable controls within organisations, and to enable you to identify and assess risks and develop suitable internal controls to address such risks.

# Accounting Accounting Ethics

## MA, 6 ECTS - 2nd semester

### **Prerequisites**

Thorough knowledge of economics, business administration and research methodology.

Knowledge of 'Financial reporting and analysis'.

#### **Course contents**

Ethical, legal and structural aspects of the economical professions are presented. An active participation of all students is required. The course is completed with special actual cases.

# Accounting Current Topics in Accounting

MA, 3 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration, financial accounting and financial reporting.

### **Course contents**

Current topics in accounting introduces students to accounting theories and provides a discussion on selected contemporary issues in accounting. At heart of this course is the acknowledgment that accounting is not just a technical matter (i.e., accounting is not just about learning particular accounting standards and accounting techniques, or about the preparation and analysis of financial statements). In this course, we take a few steps back from the more technical aspects of accounting to think about accounting from a social, economic, and political context. Through a number of selected topics, this course considers historical and contemporary issues that influence the development of accounting practices, regulation (accounting standards), and accounting thought.

The primary aim of this course is to give you an understanding of a selected set of contemporary topics that academics, regulators, standard setters, and accountants consider important. Subject to change, such topics might include the going-concern assumption, accounting conservatism, earnings management/creative accounting, fair value accounting, the (audit) expectation gap, SOX, the principles-rules debate, reporting for SMEs, and corporate social responsibility reporting.

# Accounting Financial Statement Analysis

## MA, 6 ECTS - 1st semester

### Prerequisites

Thorough knowledge of economics, business economics and research methodology.

The student should be familiar with the technique of double bookkeeping and the contents of the financial statements. The student should master the basic techniques of preparing consolidated accounts and should have an understanding of financial reporting in compliance with international financial reporting standards (IFRS).

#### **Course contents**

Companies communicate information on their performance and financial position through the publication of the financial statements, which are included in the annual report of the company. Besides financial statements, companies use also other means of financial communication like financial analyst presentations, interim reporting and press releases.

Through real life examples and case studies students will become familiar with the different techniques of financial analysis (trend analysis, common size analysis, ratio analysis, industry analysis, cash flow analysis, segmental analysis and bankruptcy analysis) and they will learn how to combine this information with the other financial and non-financial information released by a company in order to evaluate the past performance of the company, judge the current financial situation of the company and make projections with respect to the future revenue generating power of the company. Attention will be paid to the differences in information needs of the different stakeholders involved in the evaluation of the firm: investors, creditors, competitors, government and the workforce and to new forms of communication with shareholders like integrated reporting, electronic reporting (XBRL) and non-gaap measures. In the last part of the course we pay special attention to the techniques of analysis and valuation used by equity analysts and credit analysts.

# Accounting Tax Management

## MA, 3 ECTS - 1st semester

### Prerequisites

Prior knowledge of 'Accountancy' and 'Corporate Taxation'. Notions of 'Company Law'

#### **Course contents**

- Tax aspects of the annual accounts (balance sheet and profit & loss account) critical reflection on the basis of a published financial statement
- Tax aspects of developing international operations: concept permanent establishment and common tax supply chain concepts such as contract or toll manufacturers, commissionaires, principal structures, etc. are being elaborated upon. Furthermore the impact of the BEPS (Base Erosion and Profit Shifting) action plan of the OECD/G20 is being considered
- Tax aspects of mergers and acquisitions (shares transfer versus asset transfer analysis from the perspective of the seller and the buyer)
- Transfer pricing as tax management instrument: introduction to the OECD transfer pricing methods, transfer pricing documentation and recent developments within the OECD and the EU

# Development Studies Debating Development

## BA, 3 ECTS - 1st semester

### **Prerequisites**

Good English reading and listening skills, good writing skills in English.

Can understand the main ideas of complex text on both concrete and abstract topics.

Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

### **Course contents**

This series of seven debates has the intention to expose students and the interested public to some of the most actual development topics. We offer a platform for reflection on current topics in the field of development to a broad public. Each topic is introduced on the basis of a presentation by a renowned speaker. A discussant sets the stage for further debate. Our guest speakers come from international institutes, civil society and academia. Most of the discussions will be moderated by the academic staff of the University of Antwerp.

Every year we chose a central theme. The previous years we covered democracy, urban development and the Sustainable Development Goals. By February 2017 we will announce the theme of the next series.

# **Development Studies Topics in Development Studies**

## BA, 3 ECTS - 1st semester

### **Prerequisites**

Basic knowledge of economics.

#### **Course contents**

This course offers an introduction to a number of topics in development studies. The topics may vary from year to year. The topics for the academic year 2017-2018 are the following:

- Globalisation and Markets (3\*2h)
- Population, Environment and Development (3\*2h)
- Governance and Development (4\*2h)

Each of these topics will include a mixture of stylized facts on the topic, current debates and case studies.

The course will start with a general introduction by the coordinator (M. Verpoorten). The different topics will be covered by the coordinator as well as several other lecturers (including Danny Cassimon, German Calfat, Kirtsof Titeca and Sara Geenen).

# Development Studies Economic and Institutional Development

MA, 6 ECTS - 1st semester

### Prerequisites

Students must have had a basic course in economics and statistics

#### **Course contents**

The course provides an introduction to economic development, giving insight into the role of markets, the state, social norms and other fundamental determinants of economic development. The key question, although we'll stay short of a satisfactory answer, is: "Why are some countries or regions rich and others poor, and what (if anything) can be done about it?".

The course is organised in eight sessions. The first session introduces the concepts of economic development and institutions, and how they may relate to each other. In addition, an overview is given of the stylized facts of 200 years of economic development. In session 2, students are made familiar with the concept and the determinants of economic growth. In session 3, it is highlighted how these different growth models as well as real world events (economic crises and debt) have influenced the policies of two important international institutions, i.e. the IMF and the World Bank.

Sessions 4 to 6 unravel the fundamental determinants of economic growth, examining the role of governance and culture, as well as geography, trade, climate & natural resources.

Session 7 discusses the relation between economic growth and population growth. Special attention is given to the mechanisms underlying the demographic transition. In addition, session 7 looks at the relationship between resources, population and economic growth from a worldwide perspective, evaluating the questions whether natural resource shortages could be a problem for the world as a whole, and how economic growth affects the environment.

Session 8 presents different development models, revealing how different views on the relative importance of the different determinants of economic growth lead to different policy recommendations.

# **Economics and Economic Policy Current Issues in Economic Policy**

BA, 6 ECTS - 2nd semester

### Prerequisites

- Micro- and macroeconomics
- Basic statistics and calculus

#### **Course contents**

The first session explains the objectives of the course and the assessment methods. The course covers six tasks, each task including a paper and a brief presentation. Students present their work every two weeks. The tasks train the proficiencies of an applied economist. In tasks 1, 2 and 3 the students should display command of existing knowledge. Each task covers a different topic and includes the writing of a 500-word memo. Task 4 involves the interpretation of existing knowledge and results in a 750-word note. Task 5 consists of interpreting and manipulating economic data. A 1000-word note summarizes the findings. Task 6 involves the analysis of a specific policy problem and the writing of a 2,500 word-paper on this issue.

# **Economics and Economic Policy Economic Policy**

## BA, 6 ECTS - 2nd semester

### **Prerequisites**

Knowledge of economics at the intermediate level; basic knowledge of research methodology.

#### **Course contents**

The course analyses economic policy from the perspective of various objectives (employment, economic growth, price stability, etc.) and tools (monetary policy, fiscal policy, labour market policy, microeconomic policy, etc.).

Economic policy is also placed in a political and institutional context.

The following topics are dealt with:

- Role and significance of government in the economy;
- controversies in economic policy;
- Objectives and tools;
- Optimal economic policy;
- Political parties, interest groups and political cycles;
- Monetary politics and central banking;
- Fiscal policy and political institutions;
- International financial integration and exchange rate policies
- Employment policies and political economics of labour market reforms;
- Growth policy.
- Economic policy in the 2007-2009 economic-financial crisis and in the Eurozone crisis

# **Economics and Economic Policy** International Economics

## BA, 6 ECTS - 2nd semester

### **Prerequisites**

Basic knowledge of economics, business administration and research methodology. Intermediary level microeconomics and macroeconomics.

The level of this course is much higher than that of the course European and international environment. It is, therefore, recommended that students do not follow both courses at the same time.

#### **Course contents**

In this course attention is given to four topics:

- International trade theory: classical, neoclassical and modern trade theory and their empirical verification
- International trade policy: instruments, trade policy in developing countries, liberalisation of world-wide trade and the WTO
- International flows of capital and international migration
- International macroeconomic policy: historical and current policy issues, the IMF and the World Bank

# **Economics and Economic Policy** Issues in Global Economics

## BA, 6 ECTS - 1st semester

### **Prerequisites**

Micro- and macroeconomics, research methods.

#### **Course contents**

This course focuses on the economic analysis of global issues. The following themes are covered:

- Methods and perspectives
- Population
- Wealth and poverty
- Economic growth
- Food
- Energy
- Climate change
- Environment
- Technology
- Health
- Alternative futures

# **Economics and Economic Policy Optimisation in Economics**

## BA, 6 ECTS - 1st semester

### Prerequisites

Basic knowledge of economics, business administration and research methodology. Good knowledge of differential calculus and matrix algebra.

### **Course contents**

The first part of the course contains some preliminaries with respect to topology, quadratic forms without and with constraints, convex sets, concave and convex functions, quasiconcave and quasiconvex functions.

The second part studies maxima and minima of functions, without constraints, with equality constraints and with inequalities (Kuhn-Tucker, Arrow-Enthoven). The general results can then be used to generate the basic theorems of linear programming as a special case. We also present the main results on comparative statics. The exercises treat both mathematical problems and economic applications.

# **Economics and Economic Policy Applied Welfare Economics**

## MA, 6 ECTS - 1st semester

### Prerequisites

Thorough knowledge of microeconomics and research methodology.

### **Course contents**

- Introductory concepts (the Pareto principle, efficiency and equity, social welfare, optimal welfare and welfare reform, etc.)
- Evaluation of welfare changes at the individual level (surplus analysis, equivalent and compensating variations, dealing with interdependent preferences, etc.)
- Aggregating individual welfare changes: social welfare functions, non-welfarist aggregation, multidimensional welfare
- Some insights from behavioural economics: reference dependent preferences and loss aversion, framing, etc.
- The relevance of general equilibrium for program evaluation
- Uncertainty and principal-agent problems
- Indirect tax reforms
- Issues in direct taxation
- Cost-benefit analysis as applied welfare reform: principles of cost-benefit analysis (shadow prices, discount rates, treatment of wider economic benefits, etc.)
- Applications of cost-benefit analysis

# **Economics and Economic Policy Economic Analysis of Inequality**

MA, 3 ECTS - 1st semester

### **Prerequisites**

You must be familiar and reasonably confident with micro economic theory and basic statistics.

#### **Course contents**

The core module of the course covers the conceptual and ethical underpinnings of popular measures of social welfare, inequality, and poverty. Classical theoretical results are introduced and illustrated with recent empirical findings about the world, Europe, and Belgium. The derived measures are used to study the distributional implications of taxation. The core module is extended by additional modules about (1) the empirical implementation of the standard measures, (2) decomposition analysis to understand the drivers of inequality, and (3) multidimensional extensions of standard results.

# **Economics and Economic Policy** Financial Intermediation and Regulation

MA, 6 ECTS - 1st semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

### **Course contents**

In the economic part of the course an introduction into financial intermediation and its regulatory environment as it is recently developed in the European Union is given. The links between the economic activities of financial intermediaries and the different regulators are discussed: what is the rationale behind the regulation (risk management, asymmetric information, and moral hazard and agency problems) and how does it impact the business plans of the financial institutions. Some time will be spent on financial markets, on how they work and on the main products traded (interest rate swaps and derivatives). Furthermore we will look into the interaction between monetary policy and financial intermediation (European perspective).

From a legal perspective, this course sets out the key principles of financial law applicable to banks. The course starts with an overview of the supervisory framework for banks on a global and European level. This includes the Eurozone's single supervisory mechanism and single resolution mechanism. Second, an overview of key principles with respect to EU market access for banks is given. Third, substantive rules on own funds, liquidity, leverage and governance of banks, as well as on deposit guarantee schemes, are scrutinized. Fourth, the rules on a bank's traditional core activity, providing credit, will be explored, focusing on consumer credit and mortgage credit. In addition the rules on banks providing payment services are looked into. Fifth, a selection of financial markets law will be explored, under which the rules on the provision of investment services or advice to clients and rules on derivatives.

# **Economics and Economic Policy** Health Economics

MA, 3 ECTS - 1st semester

### **Prerequisites**

Knowledge of economics and econometrics.

#### **Course contents**

The course analyses a selection of topics in health economics. On the basis of (micro-) economic theory, we will give insight in the behaviour of patients and providers, in the working of health insurance markets and in government intervention and regulation. The basic principles of (health) economic evaluation will be explained.

Basic knowledge is illustrated with recent scientific publications. These themes will be related to developed and developing economies.

# **Economics and Economic Policy Industrial Organisation**

## MA, 6 ECTS - 2nd semester

### Prerequisites

This course requires sound knowledge on microeconomics, game theory, and industrial organisation at bachelor's level.

#### **Course contents**

This course builds on microeconomics and market & strategy. The course makes use of insights from industrial organisation in general, and from competition policy and the economics of regulation in particular. The topics that will be dealt with are:

- Regulation of utilities with applications to specific sectors like e.g. telecoms and electricity
- Competition policy with special attention for the analysis of mergers, two-sided markets, economics of privacy, network competition
- Empirical studies and applications from specific countries and industries

The topics will be approached from the perspective of how economists think about these new issues, how public policy makers can understand and implement the economic and strategic forces behind the effects from liberalization, and the economic implications for consumers and economic growth from the digital economy.

# **Economics and Economic Policy** Labour Economics

## Ma, 6 ECTS - 1st semester

### Prerequisites

- Economics: thorough knowledge of micro- and macro-economics, business administration and research methodology
- Introductory econometrics (at the level covered in the final bachelor year of economics): o the simple and multiple linear regression models
  - o hypothesis testing and confidence intervals
  - o concepts of autocorrelation, multicollinearity and heteroscedasticity
  - o model specification and data issues, such as the functional form, using proxy variables, measurement error, missing observations, outliers, etc.
- Text edit and presentation software: Be able to use Microsoft office packages (Word, Excel, PPT)

### **Course contents**

Labour Economics is designed as master-level course. The goal of this course is to apply microeconomic theory to labour market behaviour and wage formation; to gain insight into labour market policy issues; to analyse the impact of institutions on the labour market. By the end of the course, you should be able to discuss (orally and in writing) current labour economics research questions and policy implications in a clear, convincing and structured way. By the end of the course, you should also be able to apply econometrics research approach, such as the regression analysis, instrumental variables (IV) estimator, difference-in-differences (DID) estimator, Heckman selection model, panel fixed effects, and Oaxaca-Blinder decomposition to analyse real labour economics phenomena.

- Labour supply
- Labour demand
- Labour market equilibrium
- Compensating wage differentials
- Human capital
- The wage structure
- Labour mobility
- Labour market discrimination
- Labour unions
- Incentive pay
- Unemployment

## **Faculty of Applied Economics: Exchange Programme**

# **Economics and Economic Policy Monetary Economics**

MA, 6 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology. Knowledge of 'Introduction to econometrics, with exercises' or 'Quantitative methods of management', 'Macroeconomics', 'Microeconomics'.

#### **Course contents**

The course is composed of three, not necessarily equal, parts. The first part is devoted to the building blocks of monetary analysis: money concepts, money supply and demand, the transmission mechanism of monetary policy.

In the second part we deal with the main controversies in monetary policy: the final goals of monetary policy, the debate on rules versus discretion in monetary policy, central bank independence and accountability.

The third part examines international monetary economics, including exchange rate determination and the balance of payments, exchange rate policy, international financial crises, and monetary policy in a monetary union. In each part special emphasis will be put on recent debates and developments; e.g. the financial crisis of 2008-09.

# **Economics and Economic Policy Open Economy Macroeconomics**

MA, 6 ECTS - 1st semester

### Prerequisites

An intermediate course in macroeconomics is recommended.

#### **Course contents**

- The global macro economy
- Patterns of international trade
- Introduction to exchange rates and the foreign exchange market
- Exchange rates: the asset approach in the short run & the monetary approach in the long run
- National and international accounts: income, wealth, and the balance of payments
- Balance of payments: macroeconomic policies and the gains from financial globalization
- The financial sector and crises
- Fixed versus floating: international monetary experience
- Exchange rate crises: how pegs work and how they break
- The Eurozone
- Real business cycle and new keynesian models
- Special topics in international macroeconomics

# **Economics and Economic Policy Public Finance**

## MA, 6 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of macroeconomics, microeconomics, business administration, research methodology and econometrics.

#### **Course contents**

This course is clustered around specific topics for reading, discussion and team work:

- (Inter)national monitoring and coordination of public finances
- Government expenditure and public choice; efficiency measurement of government expenditures; privatisation & public private partnership
- Taxation and economic integration
- The shadow economy
- Fiscal federalism
- The public finances of the new EU-member countries
- Underground economy

# **Economics and Economic Policy Real Options**

## MA, 3 ECTS - 2nd semester

### Prerequisites

General knowledge of economics and/or business administration. Solid mathematical background.

#### **Course contents**

The topic of the course is real options theory. The book by Dixit and Pindyck (1996) is treated. It concerns capital investment decisions of firms, stressing the irreversibility of most investment decisions, and the ongoing uncertainty of the economic environment in which these decisions are made. We conclude that the combination irreversibility and uncertainty creates an incentive for the firm to wait with investment.

The main part of the course considers single decision maker problems of firms operating in monopoly or perfect competition markets. However, at the end we will also deal with the problem of investment timing in an oligopoly framework. This requires a merge between game theory and real options. Here the conclusion is that firms have an incentive to invest earlier than its rivals. The confrontation of this effect with the value of waiting effect described above implies an interesting trade off.

The examination consists of writing a paper about a real options article that recently has appeared in the literature. A list with suitable articles will be provided.

# **Economics and Economic Policy Transport, Mobility and the Environment**

## MA, 3 ECTS - 2nd semester

### Prerequisites

Knowledge of microeconomics, principles of econometrics and research methodology.

#### **Course contents**

This course studies transport problems and their environmental implications from a public policy point of view. A broad outline is as follows:

- General introduction: relevance of this course, the main current transport problems, brief course overview
- Pricing and investment in the transport sector: graphical introduction, a simple model, some extensions (cost of public funds, time values, distributive issues, Braess paradox)
- How to determine external costs: congestion, noise, safety, pollution
- Traffic flows, external costs and energy use: an overview for Belgium and the EU
- Application of better pricing policies in Europe: structure, implementation and acceptability
- Environmental policies in the transport sector: emission taxes, standards, fuel taxes, emission reduction subsidies, electric vehicles, costs of CO2 reductions
- Some basic economics of public transport: fares and service quality under different regulatory regimes
- Principles of cost-benefit analysis in transportation
- Issues in airport economics
- Mobility problems with multiple governments: tax competition and tax exporting
- The political economy of transport policies

# Finance Investment Analysis

## BA, 6 ECTS - 1st semester

### Prerequisites

Basic knowledge of economics, financial markets, and research methodology.

#### **Course contents**

In this course, an overview is given of the different techniques that can help the investor to compose their investment portfolio, to analyse potential investment assets and to evaluate ex post their investment decisions (or those of others). In teaching these concepts, the perspective of the institutional investor is taken (e.g. insurance company, investment company, mutual fund). We divide the investment process into three steps:

- "Asset allocation" step: how are long term investment goals formulated and how do they lead to a subdivision of the portfolio into the large asset categories (e.g. equity, bonds, and cash). In this step, the macro-economic context is predominantly present
- "Security selection" step: given the asset allocation decision, how do we fill in these categories within individual assets: which bonds do we buy, from which companies do we buy stocks, ...? It goes without saying that to answer these questions, we need some techniques and concepts to be able to value bonds and stocks. Also options and futures need to be understood as they offer additional investment opportunities or hedging possibilities
- Evaluation step: after having constructed an investment portfolio, it is equally important to regularly evaluate to what extent these decisions a) conform to the investment goals; and b) yield the desired results. The techniques to answer these questions are dealt with in this part of the course

# Finance Banking

# MA, 6 ECTS - 2nd semester

## Prerequisites

- Understanding the working of financial markets and products, such as bonds, forward contracts, options and swaps.
- Understanding pricing models for these products, incl. present value calculations.
- Understanding linear regression, the normal distribution and hypothesis testing.

General notion of the basic concepts of a spreadsheet software

#### **Course contents**

We study the function of credit institutions ('banks') in the economy and financial markets. More specifically, this course studies the role of banks in financial intermediation, with a focus on the Belgian and European context. In addition, an overview of financial management of banks is given. In this we concentrate on the management of interest rate risk, market risk, credit risk, and liquidity risk, with ample attention for regulatory requirements. We also discuss capital and cost management.

# Finance Corporate Finance and Governance

## MA, 6 ECTS - 1st semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology (including basic econometrics). A good knowledge of the fundamentals of accounting and financial management (including investment appraisal methods, the risk-return relation and capital structure decisions).

#### **Course contents**

In a first part (lectures), fundamental concepts of financial management will be extended and studied in depth, and new concepts and techniques in the field of corporate finance and corporate governance will be introduced. These include the impact of taxes on capital structure, financial distress and company failure, dividend policy including stock dividends, stock splits and stock repurchases, costs and benefits of being listed, the pricing of initial public offerings, mergers and acquisitions, firm valuation. As for corporate governance, emphasis will be put on the relation between the managers and the financiers of the company. We will discuss the different corporate governance systems in the world; conflicts of interest between managers and shareholders, between creditors and shareholders and between minority- and majority shareholders; the role of the board of directors, rewarding managers with stock and stock options, and other corporate control mechanisms.

In a second part, groups of students make assignments on topics covered by this course, including an econometric analysis.

# Finance Financial Engineering

# MA, 6 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

- Probability Theory (at the level covered in a statistics course for business and economics students): Knowledge of probability distributions (such as the normal distribution) and basic concepts such as correlation, variance, regression. Understand the concept of a confidence interval and a statistical hypothesis. Basic knowledge about Stochastic Processes and Itô Calculus
- Mathematical analysis (at the level covered in the 1st bachelor year of Economics): Basic knowledge of calculus
- Financial analysis: Knowledge of discounting, i.e. the calculation of the present value of cash flows, interest rates concepts such as spot rate, forward rate, yield to maturity and basic investment products such as bonds, stocks, option, futures, swaps
- ICT: Be able to use functions in a calculation spread sheet such as MS Excel and an econometric software package such as Stata, gretl or Eviews

Knowledge of 'Financial management'

#### **Course contents**

Goals: Risk transfer is one of the key functions of financial markets and financial products are consequently designed such that they optimally meet the needs of both issuer and investor. This course aims to introduce the building blocks that can be combined to build attractive financial instruments or financing vehicles. It goes without saying that their price is one of the important properties to be considered. The course therefore also discusses the determinants that impact asset prices and describes the quantitative techniques available to compute these prices. In addition, these techniques can also be used to estimate relevant risk parameters.

#### Contents:

- Pricing models for financial derivatives: building on the course Financial Risk Management the risk neutral pricing principle is introduced and developed. Both discrete time applications (binomial trees) and continuous time models are discussed. For the latter an intuitive introduction to stochastic differential equation is provided
- Term structure models: interest rate products effectively derive their price from the term structure. The techniques of the previous part are therefore generalized to obtain pricing tools for these important financial products
- Numerical methods: often no analytic formulas are available to price or to determine risk parameters ("the Greeks"). As a result, numerical techniques are necessary. In this part, we discuss binomial and trinomial trees, Monte Carlo simulation and finite difference methods

Continued on next page

# Finance Financial Engineering

MA, 6 ECTS - 2nd semester

#### **Course contents**

- Model calibration: Current market conditions are the starting point of many pricing models. Students need to gain insight into how market information can be estimated and derived from market prices. Examples include density estimation, term structure calibration, implied volatility and correlation surfaces, default probabilities, etc
- Practical applications are also central in this course. The teacher may choose topical examples such as
  - o Adding optionalities to facilitate the issuance of long-term debt in a low interest rate environment
  - o Deciding whether to issue inflation-linked bonds rather than nominal ones
  - o Long term Investment strategies for pension funds, while preserving capital
  - o Risk analysis of a trading book of derivatives
  - o Analysis and pricing of path-dependent option products

# Finance Financial Risk Management

## MA, 6 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

- Probability theory (at the level covered in a statistics course for business and economics students): knowledge of probability distributions (such as the normal distribution) and basic concepts such as correlation, variance, regression. Understand the concept of a confidence interval and a statistical hypothesis. It is useful to have an understanding about stochastic processes and Itô calculus. However, this is not a prerequisite and we will dedicate sufficient time to it when covering the material.
- Mathematical analysis (at the level covered in the 1st bachelor year of Economics): basic knowledge of calculus and differential equations
- Financial analysis: knowledge of discounting, i.e. the calculation of the present value of cash flows and of basic investment products such as bonds and stocks. However, we will dedicate sufficient time explaining basic definitions in e.g. interest rate markets whenever necessary
- ICT: Be able to use functions in a calculation spread sheet such as MS Excel

Knowledge of 'Financial management'.

#### **Course contents**

By following this course, students are introduced to the key elements of financial risk management. We will examine a broad range of derivative products and show how they can be used. The course first introduces the mechanics of exchange traded futures markets, hedging strategies using futures, and the determination of forward and futures prices. Next, we examine how swaps are designed, used, and valued. We then turn to the mechanics of options markets, properties of stock options, and discuss some trading strategies involving options. An important part of this course is focused on the valuation of options. We show how numerical trees can be used to value options using both no-arbitrage arguments and risk-neutral valuation. We then turn to the Black-Scholes-Merton option pricing model to value European call and put options. Related to this, the option sensitivities (Greeks) are examined as well as their applicability in hedging strategies. Once options have been covered, we will discuss various methods to calculate the Value-at-Risk of a portfolio of financial assets.

# Finance Insurance

## MA, 6 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology. Broad basic knowledge of mathematical and statistical methods. Mathematics: e.g.

- Quadratic functions, power functions, exponential functions, logarithmic functions, piecewise-defined functions
- Function sketching
- Exponential equations, linear systems of equations
- Derivatives
- Integrals
- Matrix multiplication

#### Statistics: e.g.

- Continuous and discrete distributions
- Calculation expected value, variance, quantiles, general expectations
- Calculation sample mean, sample variance
- Conditional distributions
- Point estimation
- Chi<sup>2</sup> hypothesis test

#### **Course contents**

The course "Insurance" gives an overview and understanding of the most important quantitative methods used in the world of insurance. It merely consists of two parts: life insurance and non-life insurance.

In the first part "Life insurance", we discuss the following topics: mortality tables, endowments and annuities, net premiums, risk premiums and premium savings, provisions and unit linked products.

In the second part "Non-life insurance", we show some of the techniques used in property insurance, auto insurance, home insurance and general insurance. The most important topics discussed in this context are utility theory, deductibles, premium principles, tarification in automobile insurance, credibility theory, IBNR techniques.

## Finance International Financial Management

## MA, 6 ECTS - 1st semester

#### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

Knowledge of cash flow concepts and financial derivatives Knowledge of 'Financial Management'.

#### **Course contents**

The first part of the course consists primarily of the properties of a multinational enterprise. Additionally, the content and scope of financial management in an international setting are discussed. Afterwards, still in part I, the functioning of the foreign exchange markets is treated together with important fx financial derivatives (currency futures & currency options). The next chapters present an overview of the components of fx risk. Consequently, some figures & examples are presented to 'materialize' the possible hedging strategies for companies. Another topic is the evaluation of international investment projects. The first part closes with a discussion and of the importance and content of international cash management.

The second part of the course focuses primarily on international risks and their implications with regard to the capital structure. Afterwards, a number of financing techniques for owner's equity as well as liabilities in an international setting will be discussed. Finally, an extensive evaluation and summarisation of interest risk management and the application of swaps, Forward Rate Agreements, futures, options and warrants is made.

## International Management Business in the European Union

### BA, 6 ECTS - 2nd semester

### Prerequisites

Knowledge of the EU institutional setup and decision making obtained by a previous course or by self-study of Suder, G.: Doing Business in Europe, 2nd Ed., London: Sage, 2011, Part I.

#### **Course contents**

This course focuses on the typical challenges and decision situations that corporate decision makers face when doing business in the European Union. It therefore takes a dedicated corporate perspective. Core topic areas are:

- The Single European Market (SEM): Principles and Implications for Companies
- Selected Supporting EU Policies (e.g. Competition and Industry)
- Lobbying in the EU
- Market Entry and penetration strategies for Europe
- The European Corporation: Strategy, Structure, Style
- Challenges and Opportunities in the EU along industry sectors (e.g. Professional Services, Digital Economy, Logistics, Retail, Utilities)

## International Management I-Week: Challenges for Business

BA, 3 ECTS - 2nd semester

#### Prerequisites

Basic knowledge of economics, business administration and research methodology. As attendance is obligatory and only the other third bachelor classes of AES - Business economics will be suspended during this week, it is recommended to follow this course in your final bachelor year.

#### **Course contents**

The objective of the International Week is to foster a global perspective and intercultural climate. By exposing students to international perspectives on current issues in management, the international week experience will provide an opportunity to reflect on ethical issues in the business world, through a multidisciplinary approach. Students will participate in lectures delivered by foreign visiting professors or business managers with international experience.

Each year, the International week will have an overarching theme that binds the 5 days of plenary and workshop or group sessions. Through relevant international speakers and participation of our business partners, we will ensure that this theme is addressed in multidisciplinary perspectives. A proposed theme for this International Week is "sustainability", a broad theme that has various facets, for example financial, ecological, ethical etc. Sustainability refers to the long-term survival chances of a system, which is based on interactions with many other subsystems and a fair distribution of resources and opportunities. Sustainability can be approached and analysed in different contexts, such as geographical context (BRIC, EU, ASEAN ...) or by industrial context (sector) or by functional context (marketing, finance, production, strategy ...). In plenary sessions the global issues of sustainability will be presented. Specific themes or contexts can then further be discussed in smaller groups.

When subscribing for this course please note that attendance during this week is mandatory, attendance will be registered at multiple occasions and absences will be penalised. Only the other classes of the third Bachelor year of AES - Business economics will be suspended. If you are attending other courses, please be aware that these classes will not be suspended.

# International Management Foundations of International Business

### BA, 6 ECTS - 1st semester

#### Prerequisites

Basic knowledge of economics, business administration and research

#### **Course contents**

The course provides an understanding of the basic challenges and decision situations of firms that (intend to) operate internationally:

- The Nature of International Business
- Country Differences: Political Economy and Economic Development, Cultural Environment and Ethics
- The Global Trade and Investment Environment: International Trade and Foreign Direct Investment, Global Monetary System
- Strategy and Structure of Multinational Firms: The Strategy of International Business, The Organisation of International Business, International Market Entry
- International Business Functions: Operations, R&D, Global Human Resource Management, Accounting and Finance

# International Management Current Issues in International Business

### MA, 3 ECTS - 1st semester

### Prerequisites

B.Sc. course 'Foundations of International Business' (or equivalent) OR self-study of chapters 1-15 of C.H.W. Hill: International business: competing in the global marketplace, 10th Ed, McGraw-Hill, Maidenhead.

#### **Course contents**

This course is designed to especially leverage and transpose the research fields and expertise of MNGs IB area and their invited/visiting scholars in the classroom. Students will deep dive into one of the three subject areas: business in emerging markets, international alliances and international entrepreneurship per year. The course is especially designed to increase students' international exposure and to easily incorporate visiting international scholars or experts for teaching IB courses within their area of expertise.

# International Management Intercultural Communication in the Business World

## MA, 3 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology. Basic knowledge of geography, history and social and economic issues. General notion of the basic concepts of sociolinguistics and general linguistics (communication).

Students are expected to be able to read academic texts in English, and to have/obtain academic skills for oral and written presentations/papers. Knowledge of other languages is strongly recommended, as it's not very wise to do intercultural communication in English alone...

#### **Course contents**

The course consists of three main parts (not in consecutive order).

**1. Awareness and attribution.** Through numerous examples drawn from various fields (time, space, verbal and non-verbal communication, etc.), students will become more aware of the all-encompassing nature of cultural differences in communication and will move towards an analysis and understanding of what happens in intercultural encounters. Emphasis will be on avoiding interpretation errors (mistakes in ascribing meaning to the other person's behaviour or words) and on evolving towards a positive appreciation of the other person's behaviour and values.

**2. Knowledge**. Methodologies for carrying out scientific research in the field of cross-cultural differences will be discussed, with a presentation of some major research projects (Hofstede 1980, 2001: "Culture's Consequences").

**3. Skills**. The main emphasis of the course is not on theory, but on the acquisition of practical intercultural competency and skills. Interviews and discussions of many intercultural incidents and/or larger case studies will illustrate the way in which the acquired awareness and knowledge can be put into practice. Students will also have the opportunity, during 'group work' sessions, to analyse their own intercultural experiences and will interview someone from a different cultural background than their own.

# International Management Strategy, Structure and Management of the Multinational Enterprise

## MA, 6 ECTS - 2nd semester

### Prerequisites

B.Sc. course 'Foundations of International Business' (or equivalent) OR self-study of chapters 1-8 and 13-15 of C.H.W. Hill: International business: competing in the global marketplace, 10th Ed, McGraw-Hill, Maidenhead.

#### **Course contents**

- Micro- and macro theories of the multinational enterprise
- International strategy analysis and formulation: entry and growth, exit and shrinking strategies
- Establishing, coordinating and controlling international organisational structures (incl. e.g. headquarter-subsidiary relations, international R&D and global value chain coordination)
- International strategic networks
- Global competitive dynamics
- Social responsibility & sustainability

## International Management The Economics and Institutions of International Business

### MA, 6 ECTS - 1st semester

### Prerequisites

B.Sc. course 'Foundations of International Business' (or equivalent) OR self-study of chapters 1-12 of C.H.W. Hill: International business: competing in the global marketplace, 10th Ed, McGraw-Hill, Maidenhead.

#### **Course contents**

- Grounding globalisation
- Transforming geographies of the global economy
- Complexity of global economic activity (institutional macro-structures, global production networks)
- Institutions in and of international trade and their interaction with national political economy
- Societies, firms and markets: the social structuring of business systems
- Business systems and regional economic integration

## Management Competitive Strategy

## BA, 6 ECTS - 2nd semester

#### Prerequisites

The student should have successfully obtained credits in basic microeconomics and management. Prior to this course, students should be able to apply concepts and formulas such as cost functions and profit maximization in different markets, and they should know what characterizes managerial decision making, which steps are part of the planning function of managers and how strategy is analysed and formulated in general.

#### **Course contents**

In the course it is analysed how the performance of a business is determined by its strategy and the environment in which it operates. Special attention is drawn to strategy analysis and formulation. Two levels are distinguished, with a focus on the latter: concern and competitive strategy. Concern strategy determines in which industries the business should invest and competitive strategy tells how a business can position itself in a segment and how it can reach and maintain a competitive advantage. The course consists of three main parts, covering the respective chapters in the handbook: boundaries of the firm (horizontal and vertical boundaries, and differentiation), dynamics of competitive ness (creating and sustaining competitive advantage at the firm or cluster level).

During the course economic instruments and methods (including competitive models, decision trees, backward induction, etc.) are critically discussed and applied for the analysis of the competitive situation or strategy of a business and how firms should react upon this. A lot of examples are given during the lectures and cases are made in groups and discussed together.

The link between strategy and specific business or managerial environments (such as uncertainty and bounded rationality) is particularly addressed in this course. All major theoretical concepts are developed which are important for strategy building in a realistic and contemporary business setting.

## Management Organisational Behaviour

### BA, 6 ECTS - 1st semester

#### Prerequisites

Basic knowledge of economics, business administration, research methodology and introductory psychology; the ability to read, understand, and comment on scientific articles in English.

#### **Course contents**

Organisational behaviour is the study that tries to make sense of human behaviour in structured groups, which is the first step towards understanding how to manage people effectively to accomplish organisational goals. The course builds on principles of psychology and behavioural economics to investigate how human performance is influenced by both the organisational context and individual differences.

Topics include: perception and personality, motivation, job design, groups and teams, leadership, power, and communication.

For each topic, we address theory, research, and application. Through reading scientific publications, we emphasise how empirical studies in the field of organisations translates into the current state of the art, and how current theories are used in evidence-based management to solve real-live organisational problems.

## Management Sales Management

### BA, 3 ECTS - 2nd semester

#### Prerequisites

Basic knowledge of economics, business administration and research methodology. General notion of the basic concepts of Marketing and Business Economics.

#### **Course contents**

**Introduction to Corporate sales:** A general introduction to the function of Corporate Sales, typology of sales people, daily and periodic tasks, recruitment and compensation systems. Introduction to CRMs and Sales Forecasting.

**Business Modelling:** The Presentation of the Alexander Osterwalder Methodology of Business Model Canvas, wherein students learn about the Canvas building blocks, and also learn about various contemporary popular business model patterns, like, unbundling BMs, the long Tail, multisided models, freemium and free models, etc....

**Transactional Analysis:** The students receive a detailed introduction to Eric Berne's theory of TA about the behavioural typology of human beings. The method has become popular in business schools and postgraduate education of corporate management since the late seventies. Students learn to understand themselves better, as well as those with whom they interact in their daily exchanges (transactions). They also learn to recognize social games and hidden (Ulterior) messages and the sources/reasons of this behaviour (so called life-positions). Ability to 'read' an adversary is critical in negotiations and sales campaigns.

**Target Account Selling:** This Large Account Development and Management method, which has emerged from ex-IBM top account managers in the late eighties / early nineties, and eventually, through a series of subsequent acquisitions of the initial company, it ended up within Oracle Corporation, is a four part fundamental guide covering Sales Qualification, Strategy, Politics and the Sales Plan that is aimed at winning and maintaining large Sales Accounts.

**CRM:** Under this generic name the functions supported by automated (software) tools aimed at assisting corporate Sales executives and their management in their daily business processes is being explored. **Selling to Government and Winning Bids:** A description of the structure and the components necessary in large bids, especially those to government agencies (EU as an example) are presented here. **Negotiating Skills:** An introduction to negotiating skills with a thorough explanation of powers, techniques, styles, and tactics with numerous examples are presented in this part of the course. **Effective communications:** Here the students learn how to convey oral messages well and also learn how to listen effectively too. Numerous techniques and hints / tips are presented.

**Solution Selling:** A 3x3 matrix technique, invented by Michael T. Bosworth in the early nineties and explained in his book (1995) Solution Selling, is presented in this section of the course. It is aimed to teach students how to lead a conversation between a buyer and a seller into the creation of a solution vision for the buyer leading to the products of the seller. Elements of the Socratic method are at play here.

## Management Social and Organisational Psychology

BA, 6 ECTS - 2nd semester

#### Prerequisites

Basic knowledge of economics, research methodology, and introductory psychology. The ability to read, understand, and comment on scientific articles in English.

#### **Course contents**

The course builds on principles of psychology and behavioural economics to investigate human behaviour in a social context. This includes social thinking (how human thoughts, believes, preferences, and drives are subject to change in the presence of others), social influence (how our behaviour is affected by the social world around us, and vice versa, how we impact others), and social relations (the nature of human interactions). Specific topics include: social cognition, entrapment, conformity, obedience, persuasion ("nudging"), social categorization and prejudice, conflict and cooperation, altruism, and social dilemmas.

There are weekly reading assignments, and students should come to class prepared so that the class meetings can be interactive. Each week, a number of students will be assigned to present one scientific article of choice (but of course related to the topic of that week), which is to be followed by a discussion. The purpose is to arrive at a nuanced, state-of-the-art view of the relevant social- and organisational psychology topics, based on leading theories as well as recently published empirical research. The emphasis is on fundamental, rather than applied, research.

## Management Business Administration: Capita Selecta

MA, 6 ECTS - 2nd semester

#### Prerequisites

Thorough knowledge of economics and business economics. Basics of micro and macro economics. Thorough knowledge of research methodology to be able to prepare a scientific paper.

#### **Course Contents**

Goals:

- To understand the different stages of company development; from startup to established and sustainable growth.
- Each of the phases has its peculiarities and pitfalls. These must be adequately circumvented or managed by the entrepreneur to successfully move to the next stage.
- During the course, different aspects of company development will be highlighted, such as entrepreneurship, innovation, financing growth, governance and risk management. The students will have to develop one aspect further in a paper, and critically link this with the rest of the course. This is their project work.

# Management Ethical and Sustainable Business

### MA, 3 ECTS - 2nd semester

#### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

#### **Course contents**

Part 1: Ethics and morality in business

- History of ethics in business: origins, stakeholder theory, basic philosophy
- Utilitarianism vs Kant
- Behavioral economics
- Hot topics: affirmative action, code of conduct, integrity, product liability, executive compensation ...

Part 2 Corporate responsibility and sustainability in theory

- Shared value creation + social profit social entrepreneurship
- Sustainable HR
- International benchmarks and standards: ISO 26000, GRI, EMAS, ...
- Sustainable development
- New business models for sustainability: SWOT helicopter view

Part 3 Corporate responsibility and sustainability in practice

- Opportunities to implement sustainability in the value chain of a company: products operations organization and HR
- A management approach to sustainability: learn how to do it yourself.
- Nothing new under the sun: inspiration from lean, TQM, 5 and 6SIGMA, KAIZEN, change management

## Management Organisational Theory and Design

## MA, 6 ECTS - 2nd semester

### Prerequisites

Students should possess a sound understanding of the following subjects:

- Intermediate knowledge of strategic management
- Intermediate knowledge of management
- Intermediate knowledge of organisational behaviour
- Basic knowledge of psychology and sociology
- Advanced knowledge of English, both written and spoken
- Ability to critically reflect
- Ability to synthesize information
- Advanced report writing and presentation skills
- Project management skills

#### **Course Contents**

The objective of this course is to develop a broader knowledge and understanding of what organisations are and how organisations operate in order to better grasp the prevalent role of organisations and organising in society. To do so, it is imperative to raise awareness about different perspectives through which organisations can be defined. Hence, a second objective of this course if to become aware of different perspectives or paradigms in organisation theory in order to better understand the complexity and heterogeneity of organisations and organising. Not only will different perspectives broaden student's capabilities to interpret and design organisational processes and practices, it will also enhance their critical and reflexive skills in assessing organisational practices, which covers the third major objective of this course. In essence, this course aims to address the questions how healthy organisations can be designed leveraging insights from organisation theory. In order to address this question, fundamentals of organisation theory will be reviewed by means of introduction to the concept of 'organisational health', bridging organisation theory to organisation design. More precisely, this course addresses the following objectives:

- To understand what organisations are, how organisations are designed, and how organisations function in their environment
- To understand the multitude of perspectives in organisation theory and its impact on how organisations and organising is designed
- To translate insights from organisational theory into the practice or organising and recognizing the relevant
- To understand the building blocks of organisational health and its embeddedness in organisation design
- To apply organisation theory and organisational health principles in practice
- To cultivate critical reflexive capabilities in assessing organisational practices and processes
- To write a synthesized report on the assessment of an organisation's health and to present analysis conducted in a sharp way

# Management Strategic Management

### MA, 6 ECTS - 1st semester

### Prerequisites

Thorough knowledge of economics, business administration and basic understanding of research methodology.

#### **Course contents**

The content of the course is organised in ten themes which relate to the basic concepts and tools of strategy process analysis and of the formation of business-level, corporate-level strategies and network-level in different industry contexts, with an extra emphasis on international expansion.

Specifically, the themes that will be covered are:

- Strategic thinking process
- Strategy formation process
- Strategic change process
- Business level strategy
- Corporate level strategy
- Resources & Capabilities (Inside-Out approach)
- The industry context (Outside-In approach)
- The organisational context
- Innovation & Strategy
- The international context
- Organisational purpose & sustainability

These themes are explored by applying different theoretical perspectives so as to arrive at a synthesis at a higher level of understanding. Attention is also given to real-life cases ranging from small, innovative firms to large multinational companies.

## Management Strategy Implementation and Control

### MA, 6 ECTS - 1st semester

#### **Prerequisites**

Thorough knowledge of economics, business administration and research methodology.

Basic course on strategy & organisation.

#### **Course Contents**

- Linking strategy to implementation and control
- The characteristics of a strategy-driven organisation
- Fundamentals of a successful strategy and organisational change
- Implementation advantages and disadvantages of organisation structures
- The use of information for (corporate) performance measurement and strategic control
- Balanced scorecards and strategy maps
- The evaluation of strategic performance (High performance organisations)
- The three wheels of profit and cash
- Identification and management of risks
- Levers for strategy implementation and control
- Managing strategic change

## Management Sustainability Management

### MA, 3 ECTS - 2nd semester

#### **Prerequisites**

Mathematics and statistics are presumed to be known. Self-learning modules are foreseen to catch up with the level if necessary.

#### **Course Contents**

#### PART I: -Basics

In this first part a review is given of the central position of quality management with regards to the current Sustainability Management After an introduction on how to perform good measurements, the link between sustainability and the different courses in the track "Sustainability Engineering" is highlighted. All other main courses will be positioned and related to the central backbone of Sustainability Management.

#### PART II - Evolution

How did the quality management evolve over years from single product verification over statistical quality control to fully integrated total quality management with lean six sigma concepts? We will handle this part as a historical overview of the quality guru's and their contribution to current integrated management and sustainability systems.

#### PART III - Verticals and horizontals

In this part we will deal with some of the vertical domains as components of Sustainability Management: environment, hygiene, safety, security, social matters, tec. At the same time the organisation of those verticals will be guided by management horizontals that are essential to the full deployment of the verticals throughout an organisation. This part includes a review of legislation (European, Belgian and local), industrial norms including ISO norms as they apply to the field or one of the subfields of sustainability management.

#### PART IV - AUDIT

We deal with the way an audit has to be performed and students will have to perform within a team of three, a specific audit on a target of choice.

#### Part V - Design of Experiments

The field of statistics will be briefly refreshed and Design Of Experiments will be introduced. Theory will be converted in practice, as a specific exercise will have to be incorporated in the audit for at least one missing variable.

## Management Information Systems Digital Organisation

### BA, 6 ECTS - 1st semester

### Prerequisites

Basic knowledge of economics, business administration and research methodology.

#### **Course contents**

Over the years information technology has become pervasive in organisations leading to digital firms where internal business processes and relationships with customers and suppliers are digitally enabled. This course will enhance understanding of how IT really matters and how business processes can be redesigned through information technology. The course provides insights and skills with respect to the following subjects: relationship between business and IT strategy, electronic business and commerce, IT security issues, business process reengineering, enterprise systems, building new information systems, IT outsourcing and realising business value through IT. Lectures, discussions and exercises are used to help the students understand the relationship between IT and the business. The students will have the opportunity to carry out a group assignment that will help them to understand and critically analyse research papers in this area.

## Management Information Systems Capita Selecta in Enterprise Engineering

MA, 6 ECTS - 2nd semester

#### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

#### **Course contents**

Enterprise Engineering (EE) is an emerging research area aimed at applying concepts and principles from engineering to the design of enterprises. Examples of EE theories include the Design and Engineering Methodology for Organisations (DEMO – developed at TU Delft) and Normalized Systems (developed at the University of Antwerp). The goal of this course is to focus on recent topics and evolutions in this area, both in theory and practice. If possible, international lecturers are invited; alternatively, research papers will be used to discuss the topics.

## Management Information Systems Capita Selecta in IT Governance

### MA, 6 ECTS - 2nd semester

#### **Prerequisites**

A basic insight in IT governance and thorough knowledge of economics, business administration and research methodology.

#### **Course contents**

The objective of this course is to explore and discuss emerging topics, trends and contemporary challenges in IT governance, as discussed in literature and experienced in practice. Students should be able to translate IT governance research towards recommendations for contemporary IT governance challenges in practice, and vice-versa. To structure this explore, the course will build on an IT governance taxonomy identifying five domains of interest: IT risk, IT value, IT resource optimisation, IT alignment and IT performance.

## Marketing Consumer Behaviour

### BA, 6 ECTS - 2nd semester

#### **Prerequisites**

Basic knowledge of economics, business administration and research methodology.

### **Course Contents**

Following topics will be covered:

- Consumer decision process
- Values and motivations
- Attitudes and behaviour
- Perception, learning and memory
- Personality and emotions
- Context effects, heuristics and cognitive bias
- External influences: reference groups, demographics, lifestyle, culture
- Postpurchase processes, customer satisfaction and complaining behaviour
- Consumer research

## Marketing Omnichannel and Digital Marketing

### BA, 6 ECTS - 1st semester

#### **Prerequisites**

Basic knowledge of economics, business administration and research methodology.

#### **Course Contents**

This course carries the double title of Omnichannel and Digital Marketing. This double title reflects the grouping of two fields of study and practice which are interesting and substantial in them, but which are also connected and intertwined in developed high-tech economies.

From an omnichannel perspective this course is designed to understand how organisations develop offline & online marketing channels & strategies that may leverage value creation, market differentiation and competitive advantage. The following subjects will be discussed:

- Determinants of channel strategy and design & multi-channel/omnichannel integration as a major tool of successful channel management
- Customer experience management & store atmospherics and impact on buying behaviour
- Retail branding challenges, retail promotion & retail pricing strategies
- Channel relationships, channel conflict and coordination
- Choosing the right marketing channel metrics

This part of the course will be built on co-creation by the students, as they will study the most recent research topics within omnichannel management through academic literature integration and presentation/discussion in class.

From a digital marketing perspective, the following subjects will be discussed:

- Digital business models and concepts
- E-commerce infrastructure (The Internet, Web, and Mobile Platform) & building a digital presence: web sites, mobile sites, and apps
- Digital marketing and advertising concepts: social, mobile, and local marketing
- Online content and media, social networks, auctions, and portals

This part of the course will be built on lectures (including one guest lecture).

## Marketing Business-to-Business Marketing

### MA, 3 ECTS - 1st semester

### **Prerequisites**

Thorough knowledge of economics, business administration and research methodology.

Knowledge of 'Marketing Management' and 'Consumer Behaviour'.

#### **Course contents**

The starting point is the creation of value within a B2B environment. The key objectives of the course business to business marketing are as follows:

- To understand the nature, structure, characteristics and dynamics of industrial markets
- To provide a framework to describe and analyse organisational buying behaviour in all sectors of industrial marke¬ts, businesses and instit¬utions
- To integrate and provide a framework for demand analysis, market segmentation, environmental, strategic, organisational and interna-tional issues
- To develop capabilities to manage marketing efforts in industrial markets and to analyse industrial marketing strategy development for decision making
- Considering the integration of internet within business strategies, understand B-to-B companies' marketing success relationship to the value creation potential of e-businesses following the changing dynamic competitive forces

The latter will be supported through lectures & a case study exercises in class. Moreover, teams of students will be working on a research topic & will prepare a literature study and an extensive presentation on the topic.

## Marketing Current Topics in Marketing

### MA, 3 ECTS - 1st semester

#### **Prerequisites**

Thorough knowledge of marketing management and research methodology.

Basic knowledge of economics and business administration.

#### **Course contents**

Concrete topics will depend upon current events, but will include

- Responsible marketing
- Content marketing
- International marketing
- Social media marketing
- Customer experience management

## Marketing Marketing Communication

## MA, 3 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

Knowledge of 'Marketing Management' and 'Consumer Behaviour'

#### **Course contents**

- Integrated communication and the communication plan
- Branding and marketing communication
- Models of communication
- Target groups, objectives and budgets
- Advertising, media planning and advertising research
- Specific forms of marketing communications like sales promotions, public relations, sponsorship, direct marketing and point-of-purchase communication
- Social marketing communication

If relevant, guest speakers can be invited.

## Marketing Marketing Management

### MA, 6 ECTS - 1st semester

### Prerequisites

You should be capable of performing simple algebraic calculations, able to read large amounts of text efficiently, capable to express your thoughts, opinions, analyses, recommendations in a logical and structured way.

#### **Course contents**

WATCH THE 90 SEC. VIDEO INTRODUCTION HERE -> https://youtu.be/qLapL9gcGjw

- Digital marketing foundations
- Marketing environment and trends
- Consumer behaviour and purchase decision process & how to influence them
- Business to business buying behaviour & how to influence them
- Marketing research & how to do it
- Segmentation, targeting, positioning
- Differentiation and basic strategic approaches
- Branding and corporate identify and their relevance in the marketing process
- Services marketing
- Increasing profit from existing products via product life-cycles, portfolio optimization
- Increasing profit from developing new product, the methods to do so & best practice
- Pricing strategies
- Communications : integrated marketing communications, direct, mass
- Competitor analysis and how to create a competitive advantage
- Competitive marketing strategies
- Managing implementation, keeping control, and aligning organisation

Plus many examples, insights and stories from 16 years of international marketing management experience.

## Marketing Product and Price Management

### MA, 6 ECTS - 2nd semester

#### **Prerequisites**

Thorough knowledge of economics, business administration and research methodology.

Knowledge of 'Marketing Management' and 'Consumer Behaviour'

#### **Course contents**

From a pricing management perspective the key objective of this course is to understand how different pricing strategies anticipate the value created for customers and hence develop specific prices to capture that value. The following subjects will be discussed:

- Types and determinants of pricing strategies
- Optimal pricing strategies and integration of different pricing strategies
- Specific pricing strategies such as "price bundling" of products, "participative pricing", "pay what you want" as a new pricing mechanism
- Pricing and promotion types and their effects on consumers' perceptions
- Pricing and culture :paradox and different perceptions

From a product management perspective the goal of this course is to understand the 2 main components within this management area. Product management consists of product development and product marketing which are different (yet complementary) efforts, with the objective of maximizing sales revenues, market share, and profit margins. The following subjects will be discussed:

- The underlying leadership and management and business competencies of successful product management
- Intelligence gathering tools to gain crucial knowledge and possible planning frameworks for management
- Strategic new product initiatives : (1) developing road maps and steering the fuzzy front end, (2) creating, developing business cases, and (3) formulating and executing launch
- Ongoing life-cycle management and managing brand equity

The product management part is supported through lectures, while the pricing management part is based on team papers and presentations by students on specific pricing topics. Students will prepare an extensive feedback session on their paper/topic.

## Marketing Services Marketing

### MA, 3 ECTS - 2nd semester

### Prerequisites

Thorough knowledge of economics, business administration and research methodology.

Knowledge of 'Marketing Management' and 'Consumer Behaviour'

#### **Course contents**

The general objective of this course is to acquire in-depth insights into the specific nature of services and develop analyses skills to evaluate the major implications within services management and marketing. The overall theoretical framework is based on the GAP-model where the starting point is the external gap between perceived service quality and delivered service quality. The following topics (fitting the different possible internal service firm gaps that influence the external gap) will be covered:

- Understanding customer requirements : analysing customer behaviour and expectation levels
- Service innovation and developing service standards: the new service development process
- Delivering and performing service: managing customers, intermediaries, personnel and technologies
- Managing service promises: internal and external communication issues

The latter will be supported through lectures & case study exercises in class. Moreover, teams of students will be working on a particular research assignment & will prepare an extensive feedback session on the topic.

# **Research Methods** Heuristics for Economics Students

### BA, 3 ECTS - 1st or 2nd semester

#### **Prerequisites**

Basic knowledge of economics, business administration and research methodology.

#### **Course contents**

This course offers an introduction to economic research methodology. It aims at acquainting you with the procedures and methodology of academic research within the context of your Bachelor's or Master's Program at the Faculty of Applied Economics. It offers you a practical guide for writing a good paper or thesis.

It addresses:

- The prerequisites for sound scientific research
- Research design and planning
- Methodology (quantitative, qualitative and mixed methods)
- Data collection and analysis
- The components of a paper and thesis
- Review criteria
- The APA style
- Citation and paraphrasing guidelines
- Visual presentation of data

# **Research Methods Introduction to Econometrics**

## BA, 6 ECTS - 1st semester

#### Prerequisites

- Economics: Introductory level courses in both micro- and macro-economics
- Mathematics and statistics: Introductory level courses in mathematics and statistics (both at the level covered in the first bachelor year of economics)
- Text edit and presentation software: Be able to use Microsoft office packages (Word, Excel, PPT)

#### **Course contents**

Introduction to Econometrics is designed as a first course in undergraduate econometrics. The goal of this course is to use statistical analysis, including the classical regression model, to estimate relevant economic parameters, predict economic outcomes, and test economic hypotheses using quantitative data; to understand the basic assumptions of the classical linear regression model, and identify and correct (if possible) any violations of these assumptions, such as autocorrelation, heteroscedasticity, and multicollinearity; to develop and maintain a working knowledge of econometrics that will provide a basic foundation for future study in econometrics and statistical techniques. The course is not theorem-proof driven, but emphasizes motivation, understanding, implementation, and interpretation.

Part I. Introduction and Review

- Economic Questions and Data
- Review of Probability and Statistics

Part II. Fundamentals of Regression Analysis

- The Simple Linear Regression Model
- Hypothesis Tests and Confidence Intervals
- The Multiple Regression Model
- Further Inference in the Multiple Regression Model
- Nonlinear Regression Functions
- Assessing Studies Based on Multiple Regression

# **Research Methods Applied Econometrics**

## MA, 6 ECTS - 1st semester

### Prerequisites

This course is intended for students who are interested in econometrics, have already taken introductory courses in economics, business administration, and research methodology, and have introductory-level knowledge of statistics and econometrics (including multiple regression analysis). More detailed prerequisites are listed below:

- Economics: Thorough knowledge of micro- and macro-economics, business administration and research methodology
- Mathematics, statistics and probability theory (at the level covered in a statistics course for business and economics students):
  - o Basic calculus
  - o Knowledge of probability distributions, such as the Normal, Chi-squared, Student t, and F distribution
  - o Knowledge of basic concepts such as mean, variance, standard deviation, correlation, covariance, p-value, etc.
- Introductory econometrics (at the level covered in the final bachelor year of economics):
  - o The simple and multiple linear regression models
  - o Hypothesis testing and confidence intervals
  - o Concepts of autocorrelation, multicollinearity and heteroscedasticity
  - o Model specification and data issues, such as the functional form, using proxy variables, measurement error, missing observations, outliers, etc.
- Text edit and presentation software: Be able to use Microsoft office packages (Word, Excel, PPT)

#### **Course contents**

Applied Econometrics is designed as an advanced course in econometrics. The goal of this course is to further broaden the understanding of methods and practical use of econometrics such that: you can apply these tools to modelling, estimation, inference, and forecasting in the context of real world economic problems; you are able to critically evaluate policy oriented and scientific work using standard econometric tools; you have a foundation for further study of more advanced econometric methods. The course is not theorem-proof driven, but emphasizes motivation, understanding, implementation, and interpretation.

Continued on next page

# **Research Methods Applied Econometrics**

MA, 6 ECTS - 1st semester

#### **Course contents**

Part I. Methods for cross-sectional and panel data

- Dummy variables
- Simultaneous equations
- Instrumental variables estimation
- Qualitative and limited dependent variable models
- Panel data estimators
- Program evaluation methods

Part II. Selected topics in time series analysis

- Autocorrelation and ARDL models
- Stationary and nonstationary series
- ARIMA models
- Unit Root test
- Cointegration and error correction models
- Granger causality

# **Research Methods Financial Econometrics**

### MA, 3 ECTS - 2nd semester

#### **Prerequisites:**

Thorough knowledge of economics, statistics and research methodology.

Basic knowledge of financial markets and introductory econometrics.

#### **Course contents:**

Most topics in financial econometrics deal with the statistical properties of asset returns. We will introduce the most commonly used methodologies. After reviewing the stylized facts about returns and a refresher on regression and linear time series models, we discuss tests for return predictability. Next, we move to models for capturing the dynamics in return volatility, with an emphasis on GARCH models. We also briefly discuss the multivariate extensions allowing dynamics in correlation. As in financial risk management, next to volatility measures of downside risk are also important we review some methods to capture the tails of return distributions (value at risk, expected short fail, tail risk). The final core topic is a discussion of cross-sectional return patterns and asset pricing tests. This may include an overview of event study methodology.

Although we will not disregard the econometric foundations of the methodology, the crux of the course is on understanding the intuition of the methods and their implementation. Besides theory, we will pay quite some attention to applications.

# Transport Economics Regional and Urban Economics

### BA, 3 ECTS - 2nd semester

### **Prerequisites**

Basic knowledge of economics, business administration and research methodology.

#### **Course contents**

The course is centred around the central question in regional science/economic geography, 'why there?'. For instance, why did some manufacturing activities choose a location close to the market while others can be found near resource locations? Why do low-income households live in areas with high land rents? Why are regions with low levels of employment and economic output more often located in Europe's periphery? To answer this kind of questions, the following topics are discussed:

- Patterns of spatial inequality at different scales (world, Europe, country, region, city, neighbourhood)
- Theories on regional economic change and regional development (neoclassical model of regional economic growth, export base theory, cumulative causation, (industry) life cycle, regulation theory,...)
- Cluster theories (industrial districts, regional dimension of innovation (role of tacit knowledge,...), learning regions, local buzz and global pipelines, regional competitiveness, clusters policy)
- New Economic Geography (NEG)
- The basics of location theory
- Urban economics theories (bid rent curves, ...)
- Spatial order and the urban system (rank-size rule, Central Place Theory, world city network...)
- Spatial interaction modelling

## **Transport Economics Transport Economics**

### BA, 3 ECTS - 2nd semester

### **Prerequisites**

Basic knowledge of economics, business administration and research methodology.

#### **Course contents**

- Overview of the course Transport Economics
- Demand Analysis
- Supply Analysis (including cost analysis)
- Market Equilibrium
- Transport Policy as part of General Policy
- Charging for External Costs
- Taxation Methods
- Pricing Policy
- Infrastructure Policy
- Innovation in surface transport
- Guest lectures

## **Transport Economics Seminar Maritime Technology**

### MA, 3 ECTS - 2nd semester

#### Prerequisites

- Capital budgeting techniques and the cost of capital
- Capital structure and dividend policy
- Short-term finance

Thorough knowledge of economics, business administration and research methodology. It is recommended that students have previously followed an introductory course in transport economics, maritime economics and/or port economics.

#### **Course contents**

The course mainly deals with current technological themes and evolutions in the maritime and port business. These issues will be addressed by the lecturers and guest lectures and also during a set of company visits. The topics include:

- the development in handling technology and warehousing technology;
- modern logistics management and IT technology;
- shipbuilding and ship design;
- dredging and nautical accessibility of ports;
- market evolutions in the maritime industry in the field of vessel types, terminals and port policy

The excursions are a compulsory part of the course.