



2023-24

## Final Year Economics Short Module Descriptions

### Semester 1

#### **EC3101: Microeconomics and Public Policy**

##### **Semester 1 | Credits: 5**

The module provides students with an introduction to topics in advanced microeconomic theory, with applications to public policy where relevant. Topics covered include game theory, the median voter theorem, second-price auctions, models of imperfect competition, general equilibrium and the welfare theorems, collective decision making and social choice theory, uncertainty and risk, asymmetric information and signalling, principal-agent theory, and externalities and the Coase theorem.

#### **EC345: Health Economics**

##### **Semester 1 | Credits: 5**

This module is designed to give students a basic grounding in the theory and practice of health economics, which economists use to explore issues in health and health care. The module introduces theoretical models which have been developed in an attempt to explain how health care systems operate and differ with respect to financing, eligibility and provision. The module also considers theoretical models that are employed to explore health behaviours and individual choices that we as people make. In addition, the module introduces practical health economic methods which use data to examine whether abstract theoretical models stand up to critical scrutiny in the real world. Finally, the module introduces a set of practical evaluation techniques which are increasingly used to inform policy on the cost-effective allocation of scarce health care resources.

#### **EC369: Money and Banking**

##### **Semester 1 | Credits: 5**

This module explores the theoretical and applied foundations of money and banking with a focus on international issues. We begin with an analysis of the functions of money and a discussion about the potential for a 'cashless society'. The module then explores the traditional role of banks in the global economy and how they now face competition from fintechs and large technology companies. The role of central banks is also a focus, in particular how they fulfil their mandates of keeping inflation low and preserving financial stability. The module then evaluates the potential role of cryptocurrencies such as Bitcoin and recent innovations such as decentralised finance ('DeFi') and web3 in the international monetary system. We finish by discussing whether central bank digital currencies (CBDCs) are the likely successor to the current monetary framework.

### **EC388: Environmental and Natural Resource Economics**

#### **Semester 1 | Credits: 5**

This module introduces students to the use of economic tools in analysing natural resource issues. The module discusses issues surrounding environmental sustainability in the context of economic growth. The theory of externalities and public goods are discussed and this addresses environmental external effects with respect to depletion and pollution. Causes of environmental externalities are also included in the context of missing markets and property rights. The components of value which, make up total economic value of environmental goods is considered. These include direct, indirect, option value and existence value. Willingness to pay and willingness to accept approaches are discussed. Revealed and stated preferences valuation techniques are included. Consideration is also given to the analysis of environmental policy instruments, with an emphasis on pollution control. Issues surrounding international environmental problems including climate change are also discussed.

### **EC3105: Econometrics**

#### **Semester 1 | Credits: 5**

The aim of this module is to introduce students to the principles of econometric analysis. The module focuses on different regression models, discusses common problems when estimating such models and explains how to interpret the estimates from various econometric models. The module has an applied focus and students will get hands-on experience with estimating and interpreting econometric models based on real data.

## **Semester 2**

### **EC3102: Macroeconomics and Public Policy**

#### **Semester 2 | Credits: 5**

This is an advanced macroeconomics module covering the theory and practice of macroeconomics and macroeconomic policy. The objective of this module is to understand the core models of economic growth, with an emphasis on the dynamics of capital accumulation and technological progress. We will use these models to discuss growth experiences around the world as well as public policies that affect the level and growth of the standard of living. This module also aims to dive deeper into a range of important topics in macroeconomic theory and policy, including macroeconomic dynamics, monetary and fiscal policy, the financial system, and theories of consumption and investment. This module will emphasise the application of rigorous macroeconomic analysis to policymaking.

### **EC362: Economics of Financial Markets**

#### **Semester 2 | Credits: 5**

This module focuses on global financial markets from an investments perspective. A significant emphasis is put on making this module quite practical and focused on contemporary facets of the world of finance. Therefore, we will address a range of current issues as the prospects for global stock markets, why passive investing through exchange traded funds (ETFs) has become so popular and evaluate the likely investment themes over the next few years. In addition, this module explores whether the dominant efficient markets hypothesis (EMH) framework is still valid and if behavioural finance and technical analysis can be applied

to investing. The module also provides an introduction to financial derivatives such as futures and options. Finally, we will discuss how the recent inflationary environment impacts fixed income markets.

### **EC386: Public Economics**

#### **Semester 2 | Credits: 5**

This is a final year undergraduate module in public economics. The module examines the role of government in the economy using economic analysis. It covers the topics of efficiency and equity, market failure, cost benefit analysis and public choice. By the end of this module, you should have a solid understanding of some of the most important concepts and theories in public economics.

### **EC429: Marine Economics**

#### **Semester 2 | Credits: 5**

This module will use economic analysis to evaluate specific marine policies in the areas of marine tourism and recreation, shipping, offshore energy production, aquaculture, fishing, coastal development, and the protection of marine habitats and biodiversity. The valuation of marine ecosystem services and the bio-economic modelling of the lifecycle of marine species will also be a focus of this module.

### **EC3100: Economics and Philosophy**

#### **Semester 2 | Credits: 5**

This module will explore the interface between decision theory, welfare economics and analytical philosophy. Economics has its origins in moral philosophy and ideas from philosophy still permeate the subject. For example, a version of utilitarianism is the basis of traditional welfare economics. However, this is controversial theory and philosophers have proposed alternatives. Additionally, economics assumes that people are rational. Philosophers have debated the meaning of this concept.

The module is in two halves. The first half covers decision theory, rationality and von Neumann – Morgenstern expected utility theory (including the Allais paradox and the Ellsberg paradox). The second half focusses on ethics and welfare economics. We cover utilitarianism, social welfare functions, Rawls' theory of justice, Sen's work on rights and the Pareto principle. The module relies on the use of logical arguments, mathematical reasoning, as well as an analysis of the core texts.

### **EC3106: Behavioural Finance**

#### **Semester 2 | Credits: 5**

This course describes how people and institutions make financial decisions and how those decisions might deviate from those predicted by traditional financial theory. Students will explore the existence of psychological biases in financial decision making and examine the impacts of these biases in financial markets and other financial settings. The course examines how the insights of behavioural finance complements the traditional finance paradigm. Students will develop a practical understanding of the ways humans make financial decisions, with specific attention to the way emotions and psychological traits influence financial decisions. Students will gain a deeper understanding of recent developments in issues such as neurofinance and nudges and how they apply to practical aspects of investing, corporate finance, private banking, Fintech, and stock trading.

**EC357: Development Economics****Semester 2 | Credits: 5**

This module is organized around the transformative question “Why are some countries rich and others poor?” This is one of the oldest and most important questions in Economics - Adam Smith’s “The Inquiry into the Nature and Causes of the Wealth of Nations”, was published in 1776. This course introduces students to the field of Development Economics. The objective of the course is to equip students with a greater understanding of the process of economic development and the challenges faced by nations and individuals in the developing world. The course covers a range of topics in development economics from a theoretical and an empirical perspective. The course begins with reviewing the theories of economic growth and the development process. It focuses on the role of physical, human and social capital, technology and population growth in economic development. Specific attention is paid to the relationships between inequality, poverty and economic growth. Thereafter, the course covers a set of topics of relevance to developing economies, such as health, education, gender, culture and climate.

See also timetables, and undergraduate economics handbook at:

[www.nuigalway.ie/business-public-policy-law/cairnes/subjectareas/economics](http://www.nuigalway.ie/business-public-policy-law/cairnes/subjectareas/economics)