

EC3301 Econometrics			
SCOTCAT Credits:	20	SCQF level 9	Semester 1
Academic year:	2021-2022		
Planned timetable:	9.00 am - 11.00 am Tue.		
<p>The module develops student understanding of the classical linear econometric model (ordinary least squares). This will cover a range of topics including: estimation and inference in multivariate regression models; the use of limited dependent variables; large sample properties of OLS estimators; multicollinearity and heteroskedasticity. Student understanding of key econometric concepts and their application to economics will be developed, allowing them to estimate, interpret, test and critically evaluate economic relationships. The module will develop students applied skills through the use of appropriate econometric software.</p>			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 1hr x 20 lectures, 1hr x 4 tutorials, 2hr x 5 laboratories		
	Scheduled learning: 33 hours	Guided independent study: 167 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: Class Test (Theory) = 25%, Written Project (Applied) = 25%. 2 hour Written Examination = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr P D Macmillan		
Module teaching staff:	Peter Macmillan		

EC3302 Game Theory			
SCOTCAT Credits:	20	SCQF level 9	Semester 2
Academic year:	2021-2022		
Availability restrictions:	Permission of the Economics Honours Advisor		
Planned timetable:	9.00 am - 11.00 am Mon.		
<p>Game Theory focuses on the decisions and behaviour of economic agents in interactive situations. This module will teach the basics of strategic thinking, aiming to guide students' understanding of the common roots of many social and economic dilemmas. Beginning with the discussion of simple games, analytic tools will be introduced progressively leading the discussion of numerous applications like bargaining, production and market entry choices, financing decisions, voting, and more.</p>			
Pre-requisite(s):	Permission of the economics honours adviser		
Anti-requisite(s)	You cannot take this module if you take EC4201		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 80%, Practical Examinations = 0%, Coursework = 20%		
	As used by St Andrews: Coursework (Quizzes) = 10%, Class Test = 30%, 2-hour Written Examination = 60%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Professor A Zapechelnyuk		
Module teaching staff:	A Zapechelnyuk		

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EC3303 Economic Growth			
SCOTCAT Credits:	20	SCQF level 9	Semester 1
Academic year:	2021-2022		
Planned timetable:	9.00 am - 11.00 am Wed.		
Growth is one of the core issues in Economics which has intrigued economists for more than a century. In spite of their effort, many questions remain unanswered, making this one of the most interesting and challenging field in Economics. A recurring theme of this course will be the question Why are some countries so rich, while others are so poor? The main objective of this course will be to apply economic theory to better understand and interpret empirical observations with respect to economic development and growth. In this course, we will study the main facts characterizing economic development and growth over time and across countries and the ability of theoretical models to account for these facts.			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr R L Stefanski		
Module teaching staff:	Radek Stefanski		

EC3304 Mathematical Economics			
SCOTCAT Credits:	20	SCQF level 9	Semester 1
Academic year:	2021-2022		
Planned timetable:	9.00 am - 11.00 am Thu.		
The module covers the basic mathematical tools used in economic theory. Good knowledge of elementary calculus will be assumed. The main topics are multivariate calculus, concavity and convexity, optimization theory, differential equations, and dynamic optimization. The main goal is that students learn to use the tools, so the emphasis will be on techniques and their applications to fundamental economic models rather than abstract theory.			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. 2 x Class Test 25% each) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr M Zhang		
Module teaching staff:	Min Zhang		

EC3305 Incentives, Contracts and Markets			
SCOTCAT Credits:	20	SCQF level 9	Semester 1
Academic year:	2021-2022		
Planned timetable:	To be arranged.		
<p>Incentives economics (also known as economics of information and contract theory) studies interactions between economic agents in the presence of information asymmetries, such as sellers being better informed than buyers about product quality, or workers knowing better than employers the cost of exerting effort in a given task. Incentives economics is part of the core toolkit of modern graduate-level micro- and macroeconomics. This module introduces basic models featuring risk-sharing, private information and moral hazard, and covers a selection of applications among the following: workers compensation, corporate finance, equal pay communes, pricing, insurance, and higher education.</p>			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr L Bridet		
Module teaching staff:	Luc Bridet		

EC3306 Economic Fluctuations			
SCOTCAT Credits:	20	SCQF level 9	Semester 2
Academic year:	2021-2022		
Planned timetable:	To be arranged.		
<p>Economic growth is not steady but features a series of expansions and contractions. These economic fluctuations are of primary concern to economic policy makers and have been the source of some of the most intense debates in all of economics. A recurring theme of this course will be the question Where do economic booms and busts come from? and the module's main objective is to provide an advanced understanding of the macroeconomics behind this volatility. Students will be introduced to the main facts characterizing economic fluctuations as well as a range of formal analytical models that will help develop their understanding of key macroeconomic and monetary relationships. Finally, they will examine how well these models account for the observed facts.</p>			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr Y Moiseeva		
Module teaching staff:	Yulia Moiseeva		

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EC3307 Computational Economics			
SCOTCAT Credits:	20	SCQF level 9	Semester 2
Academic year:	2021-2022		
Planned timetable:	TBC		
Economics has an array of very useful and advanced computational tools that are not usually taught at the undergraduate level. To address this issue and to make students familiar, and even proficient, with these tools, this module will present a methods-based computational economics course. We will develop some basic but fundamental economic problems (both macro and micro) and teach students how to solve those problems using a programming language like Mathematica or Matlab. The ability to program is crucial in the modern world and this course will endow students with an invaluable tool as well as an important edge with respect to other economics programs. Students will be given an opportunity to program and to learn to apply their new skills to solving economic problems.			
Pre-requisite(s):	Before taking this module you must pass EC3304 or pass MT1002		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks), 2-hour lab (x 2 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 29 hours	Guided independent study: 180 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 25%, Practical Examinations = 0%, Coursework = 75%		
	As used by St Andrews: Written Examination (In-class Test) = 25%, Coursework = 75%		
Re-assessment pattern:	Programming Project = 100%		
Module coordinator:	Dr R L Stefanski		
Module teaching staff:	R Stefanski		

EC4401 Advanced Econometrics			
SCOTCAT Credits:	20	SCQF level 10	Semester 2
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged.		
The module seeks to equip students with advanced skills in data analysis by introducing a number of estimation methods commonly used in economics. These include, limited dependent variable models, pooled cross-section and panel models, two-stage least squares, time series methods and simultaneous equation models. The module builds upon the knowledge of the linear regression model acquired in EC3301.			
Pre-requisite(s):	Before taking this module you must pass EC3301 or pass MT3508		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks plus 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. 2 x Class Test 25% each) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Professor J R McCrorie		
Module teaching staff:	Roderick McCrorie		

EC4402 Monetary and Financial History				
SCOTCAT Credits:	20	SCQF level 10	Semester	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	2.00 pm - 4.00 pm Thu.			
An understanding of economic history lends clarity to many questions in economics. Among these are: The extent and impact of globalization; the determinants of the wealth of nations; the occurrence and impact of financial crisis; and the importance of economic institutions. Each of these putatively modern questions have long historical antecedents. We will treat these questions with a modern rigour, studying work that uses theoretical and econometric analysis.				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 2 lectures per week (x 9 weeks). 1-hour tutorial (x 5 weeks)			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework (incl. Class Test 50%, Essay 50%) = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J R Sousa da Cunha			
Module teaching staff:	Joao Rafael Cunha			

EC4407 Behavioural Economics				
SCOTCAT Credits:	20	SCQF level 10	Semester	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged.			
Behavioural economics combines traditional neoclassical microeconomics and empirically motivated assumptions with the goal of providing a better understanding of economic behaviour and welfare in settings that range from single-person decision problems under certainty, risk or uncertainty to multi-person decision problems. The module will introduce theoretical models that deviate from the standard assumptions of rational choice in order to explain observed behavioural patterns that arise both in single-period as well as in multi-period decision problems. When relevant, policy implications/responses will also be discussed.				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. 2 x Class Tests 25%) = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr G Gerasimou			
Module teaching staff:	Georgios Gerasimou			

EC4408 Industrial Organisation and Regulations			
SCOTCAT Credits:	20	SCQF level 10	Semester 2
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged.		
<p>This module is an analytical treatment of industrial organisation in a dynamic context, providing rigorous coverage of core areas of the subject, supported mostly by both theoretical models and some econometric studies. The Topics covered are as follows: Modules of intra-industry competition, including discussion in game theoretic terms; market structures, economies of scale, entry and exit; product differentiation, innovation; mergers.</p>			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 37 hours	Guided independent study: 163 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-Hour Written Examination = 50%, Coursework (including Class test 25%) = 50%		
Re-assessment pattern:	2-Hour Written Examination = 100%		
Module coordinator:	Dr M M A La Manna		
Module teaching staff:	Manfredi La Manna		

EC4409 International Macroeconomics			
SCOTCAT Credits:	20	SCQF level 10	Semester 1
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	11.00 am - 1.00 pm Fri.		
<p>This module provides a comprehensive treatment of selected aspects of international macroeconomics. The course makes intensive use of mathematical techniques of exchange rate modelling. The module aims to deepen understanding of the functioning of the international monetary and financial system, and to familiarise students with some key issues in the literature of international macroeconomics.</p>			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Technical Assignment 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr O Senay		
Module teaching staff:	O Senay		

EC4410 International Trade			
SCOTCAT Credits:	20	SCQF level 10	Semester 1
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged.		
This module introduces basic facts and theoretical models regarding economic interconnections within an increasingly integrated world. Its aim is to provide students a global view and understanding of interdependence among all countries. Its content includes a current and an historical overview of trade and its impact on economic growth, the classic theory of free trade, recent developments in theoretical models and relevant empirical evidence and major policy issues arising in open economies that are becoming more relevant today. The module will cover traditional (neoclassical) economics and also discuss various challenges presented to such a framework, especially based on experience of developing countries.			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr J Y Jin		
Module teaching staff:	Jim Jin		

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EC4411 Labour Economics			
SCOTCAT Credits:	20	SCQF level 10	Semester 1
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged.		
<p>This module introduces the analysis of labour markets from the perspective of economic theory. It starts with the exploration of two major forces that shape the behaviour of labour markets: labour supply of workers and labour demand of firms. This is followed by the discussion of the equilibrium behaviour of employment and wages. These tools are further used to cover various applied topics in labour economics, such as wage inequality, labour market discrimination, human capital investment, labour mobility, unemployment and labour market participation. Students will study the main theoretical models used by labour economists and understand how they help inform policy making. Students will also acquire practical experience in the analysis of labour market data and policy evaluation while working on the applied project in their chosen area of labour economics.</p>			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 37 hours	Guided independent study: 163 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 20%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr I Merkurieva		
Module teaching staff:	I Merkurieva		

EC4414 Macroeconomic Policy			
SCOTCAT Credits:	20	SCQF level 10	Semester 2
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged.		
<p>The module is designed to provide a specialised understanding of both monetary policy and fiscal policy issues. The lectures will cover a broad range of issues. These may include central bank independence, monetary policy transparency and accountability, monetary policy targets, Taylor rules and inflation targeting, monetary and fiscal policy in a depressed economy, monetary and fiscal policy interaction. We will also look at the operation of monetary policy in a number of institutions (e.g. ECB, Bank of England).</p>			
Pre-requisite(s):	Permission of the Economics Honours Adviser		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr P D Macmillan		
Module teaching staff:	Peter Macmillan		

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EC4415 Public Economics				
SCOTCAT Credits:	20	SCQF level 10	Semester	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged.			
This module will apply microeconomic reasoning to the study of the public sector. It will survey the scope and different modes of public intervention in the economy, with particular emphasis on the welfare state and income redistribution. It will discuss the provision and financing of public and private goods and the design of tax systems.				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 37 hours		Guided independent study: 163 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr J Arshad			
Module teaching staff:	Junaid Arshad			

EC4416 Innovation Economics				
SCOTCAT Credits:	20	SCQF level 10	Semester	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged.			
Innovation is both a major contributory factor in economic growth and a crucial element of competitive behaviour and policy. The aim of this module is to introduce students to recent theoretical and empirical developments in the economics of innovation. The module examines the incentives firms have to innovate by the introduction of new products and new processes and, in particular, how this is affected by strategic competitive conditions. The module also critically discusses the patent system, introducing students to patent data and policies.				
Anti-requisite(s)	You cannot take this module if you take EC4616			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 6 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 26 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr L Savorelli			
Module teaching staff:	Dr Luca Savorelli and Junaid Arshad			

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EC4417 Financial Economics: Asset Pricing				
SCOTCAT Credits:	20	SCQF level 10	Semester	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	2.00 pm - 4.00 pm Mon.			
The main aim of this module is to provide a rigorous grounding in the theory and applications of finance and a thorough synthesis of the most important current research in finance, with a particular emphasis on the applications of the principles. The ultimate aim is to provide students with a standard approach to define, measure, as well as predict the value of financial claims in a world of uncertainty. The standard notion of risk versus return is defined and analytical economic models of how risks and returns are determined and traded in financial markets. Both normative and positive aspects of financial theory will be investigated, together with supporting descriptive and empirical evidence.				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr I Psaradellis			
Module teaching staff:	Ioannis Psaradellis			

EC4418 Financial Economics: Corporate Finance				
SCOTCAT Credits:	20	SCQF level 10	Semester	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged.			
In this module we investigate the problem of how a collection of corporate liabilities is affected in value by corporate actions. Possible actions include corporate investment decisions, decisions regarding the firm's financial structure, changes in management rules and compensation and changes in the scope, specialisation and legal environment of the corporation's business. We emphasise standard methods for solving problems under economic uncertainty. At the end of this module the student will have a good working knowledge of institutions and the theory and valuation methods used worldwide in major corporations and financial institutions.				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: Coursework (inc Class Test 25%, Quizzes 25%) = 50% 2-hour written examination = 50%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr E Lauw			
Module teaching staff:	Erven Lauw			

EC4419 Development Economics				
SCOTCAT Credits:	20	SCQF level 10	Semester	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged			
<p>This module explores the microeconomic foundations of development economics. We will discuss topics such as poverty traps, labor markets, human capital, gender, public goods/service delivery and taxation, infrastructure, among others. In studying each of these topics, we will ask: what determines decision-making in low- and middle-income countries? What constraints do agents face? Is there scope to improve livelihoods through the actions of market participants, governments, international organisations (e.g. World Bank) and NGOs? What policies have been tried in different countries and how have they fared? This module places emphasis on developing analytical understanding of applied issues, while combining theory and empirical evidence. We will ultimately seek to draw useful policy conclusions.</p>				
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorials (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%			
	As used by St Andrews: Written Exam = 60%, Coursework = 40%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Ms A Bancalari Valderrama			
Module teaching staff:	Dr Antonella Bancalari			

EC4424 The Economics of Migration				
SCOTCAT Credits:	20	SCQF level 10	Semester	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged.			
<p>The number of international migrants has rapidly grown over the last few decades. This module explores the economic determinants and consequences of international migration, and sheds light on the often controversial policy debates surrounding immigration. Students will apply basic economic theory and empirical methods to understand the decision to migrate, the effect of immigration on labour markets and government budgets, the effect of diversity on economic performance, the effect of high-skilled emigration on source countries and immigration policies. The module will have a strong focus on the empirical evidence on immigration and will train students' ability to critically assess this evidence.</p>				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 2 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: Written Examination = 50%, Coursework = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr D R Escamilla-Guerrero			
Module teaching staff:	David Escamilla-Guerrero and David Jaeger			

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EC4425 Econometrics of Impact Evaluation			
SCOTCAT Credits:	20	SCQF level 10	Semester 2
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged.		
Evaluating the causal effects of economic policies is an important but complex and challenging task. The purpose of this module is to introduce students to the core methods for evaluating the causal effect of economic policies and to apply these methods in practice. It will expose students to the concept of causality and explain under which assumptions the causal effect of economic policies can be identified. The module will have a strong focus on applications and will emphasise problems that economists encounter in practice when evaluating economic policies. Empirical examples will deal mainly with policies in labour economics and development economics. The laboratory sessions will discuss important empirical studies in the field and will provide students with the opportunity to apply empirical methods hands-on using Stata.			
Pre-requisite(s):	Before taking this module you must pass EC3301 or pass MT3508 or pass EC5203		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 optional office hour (x 12 weeks)		
	Scheduled learning: 25 hours	Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%		
	As used by St Andrews: Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%		
Module coordinator:	Dr L Neri		
Module teaching staff:	Lorenzo Neri		

EC4426 Practical Financial Modelling			
SCOTCAT Credits:	20	SCQF level 10	Semester 2
Academic year:	2021-2022		
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser		
Planned timetable:	To be arranged		
Financial modelling using Microsoft Excel is used in many fields such as investment banking, mergers and acquisitions (M and A), equity research, risk analysis, valuations, investment management, credit analysis, financial projections and project evaluations. This module is designed to equip students with skills to implement financial models using Excel. It will also introduce the use of VBA (Visual Basic for Applications, Microsoft's programming language) in financial modelling. This is an applied module with an emphasis on the practical application of finance theory through in-depth Excel based laboratories. Material will be made relevant to the international finance industry with real world examples and problems relevant to global financial markets. The goal of this module is to provide students with extensive knowledge of the quantitative models used by financial institutions around the world.			
Pre-requisite(s):	Before taking this module you must take EC4430 and take EC4417		
Learning and teaching methods of delivery:	Weekly contact: 1h x 11 weeks lectures, 1h x 6 weeks labs, and 2h x 5 weeks labs		
	Scheduled learning: 33 hours	Guided independent study: 168 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 70%, Coursework = 30%		
	As used by St Andrews: Class Test = 30%; Practical project 1 = 10%; Practical project 2 = 60%		
Re-assessment pattern:	100% Coursework		
Module coordinator:	Dr M C Iannino		
Module teaching staff:	Maria Chiara Iannino		

EC4428 Topics in Economic History			
SCOTCAT Credits:	20	SCQF level 10	Semester 1
Academic year:	2021-2022		
Planned timetable:	TBC		
This module will examine a selection of the major themes in economic history. Students will read academic articles written by economists that use novel historical data, state-of-the-art micro econometric methods, and economic theory. The reading list covers a broad range of historical periods and geographic regions that provide unique settings to answer questions that are usually difficult to address in contemporary settings. The module begins with a discussion of the evolution of economic history and the main empirical methods used in applied microeconomics and their application in economic history. Then, students will examine interrelated themes including the ultimate determinants of economic prosperity; culture and religion as drivers of social and economic change; the origins of gender inequality; the impact of ethnic animus and conflict in the long run; and the persistent effects of immigration and technology adoption on the economy.			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorials (x 5 weeks) plus 1 office hour (x 12 weeks). Guided independent study: 168 hours.		
	Scheduled learning: 37 hours	Guided independent study: 168 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%		
	As used by St Andrews: Coursework = 50% Exam = 50%		
Re-assessment pattern:	Coursework = 100%		
Module coordinator:	Dr D R Escamilla-Guerrero		
Module teaching staff:	Dr David Escamilla-Guerrero		

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EC4429 Health Economics			
SCOTCAT Credits:	20	SCQF level 10	Semester 2
Academic year:	2021-2022		
Planned timetable:	Wednesdays 10:00 - 12:00		
<p>This module covers important theory and empirical evidence in the field of Health Economics. It first provides an overview of how different countries organise their healthcare systems and main issues in the economics of healthcare. Students will then review the problems that emerge in healthcare insurance markets, including moral hazard in the use of health care services and ex-ante risk heterogeneity in consumers. Students will also study the different ways that health care providers can be paid and how this affects the effort, cost, and quality of treatment, as well as the effect of competition among healthcare providers on quality. Students will finally explore pharmaceutical markets and the economics of pandemics. This module places emphasis on developing analytical understanding of applied issues, while developing strong theoretical foundations. We will ultimately seek to draw useful policy conclusions for high-, low- and middle-income countries.</p>			
Anti-requisite(s)	You cannot take this module if you passed EC4403		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorials (x 5 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 37 hours	Guided independent study: 168 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%		
	As used by St Andrews: 50% = Coursework 50% = Written Exam		
Re-assessment pattern:	Written Examination = 100%		
Module coordinator:	Ms A Bancalari Valderrama		
Module teaching staff:	Dr Antonella Bancalari		

EC4430 Portfolio Management				
SCOTCAT Credits:	20	SCQF level 10	Semester	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	TBC			
<p>This module aims to develop students' knowledge and understanding of key issues in asset allocation and portfolio composition/management at an intermediate level. The tradeoff between risk and return is defined, a clear distinction between passive and active portfolio management is established and key market equilibrium models of how risks and returns are determined at individual and portfolio levels are carefully analyzed. Moreover, this module aims to provide students with the opportunity to develop their ability to critically understand current theoretical and empirical research in the field of portfolio management and the implications of such research for alternative portfolio composition and management techniques. Various trading strategies involving multiple asset classes such as equities and bonds implemented by professional asset managers are introduced.</p>				
Pre-requisite(s):	Before taking this module you must take EC4417			
Anti-requisite(s)	You cannot take this module if you take EC4204			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
	Scheduled learning: 25 hours		Guided independent study: 175 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%			
	As used by St Andrews: 2-hour Written Examination = 50%, Coursework = 50%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr R Tuneshev			
Module teaching staff:	Ruslan Tuneshev			

EC4431 Economics of Education				
SCOTCAT Credits:	20	SCQF level 10	Semester	1
Academic year:	2021-2022			
Planned timetable:	TBC			
<p>This module explores the microeconomic foundations of the economics of education. After outlining the human capital model, students will discuss the impact of early childhood investments, school incentives (such as autonomy and competition) and inputs (teachers and peers) on education and labour market outcomes. The module will introduce screening and signalling models, estimates of the returns to education and the determinants of income inequality and intergenerational mobility. Students will also examine new issues linked to online education. This module places emphasis on developing analytical understanding by combining theory and evidence. There will be a strong focus on the policy implications that can be drawn from the empirical evidence.</p>				
Anti-requisite(s)	You cannot take this module if you passed EC4403			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorials (x 5 weeks) plus 1 office hour (x 12weeks).			
	Scheduled learning: 37 hours		Guided independent study: 168 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 50%, Practical Examinations = 0%, Coursework = 50%			
	As used by St Andrews: 50% = Coursework 50% = Written Exam			
Re-assessment pattern:	Written Examination = 100%			
Module coordinator:	Dr L Neri			
Module teaching staff:	Dr Lorenzo Neri			

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EC4432 Development and Finance				
SCOTCAT Credits:	20	SCQF level 10	Semester	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with the permission of the Honours Adviser			
Planned timetable:	To be arranged			
This module will provide you with understanding of specific aspects of development finance, recognising that finance-related issues are increasingly important in economic development. The module is designed to introduce you to advances in both the theoretical and the empirical understanding of financial issues mainly in developing countries. This will include an examination of the starting point as well as the path to financial integration with the international economy, and will address a selection of the major issues surrounding developing markets. In the context of economic development and emerging markets, we will mainly study topics of financial repression and liberalisation; financial development; fragility and crises; microfinance; financial aid and economic development; and religion and finance.				
Pre-requisite(s):	Permission of the Economics Honours Adviser			
Learning and teaching methods of delivery:	Weekly contact: 2 hours of lectures (x11 weeks), 1-hour tutorial (x 5 weeks) and 2 optional office hours dedicated to the module (x 12 weeks)			
	Scheduled learning: 27 hours		Guided independent study: 166 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 80%, Practical Examinations = 0%, Coursework = 20%			
	As used by St Andrews: 2-hour Written Examination = 60%, Coursework = 40%			
Re-assessment pattern:	2-hour written examination = 100%			
Module coordinator:	Dr V Saxena			
Module teaching staff:	Vibhor Saxena			

EC4498 Research Project in Economics				
SCOTCAT Credits:	20	SCQF level 10	Semester	Both
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the final year of their degree programme with at least 60 credits in Honours Economics modules.			
Planned timetable:	1.00 pm - 2.00 pm Thu (Weeks 1 - 4 only)			
This module is designed to develop students' independent research, writing and presentation skills in the application of economic analysis to a selected topic in economics. The project will require initiative, a critical discussion of existing research and development of an argument. The project may also include econometric study of a problem. The permitted length is between 6,000 - 8,000 words.				
Pre-requisite(s):	Students must be in the final year of their Honours programme and have already accumulated at least 60 credits in 3000 or 4000 level Economics modules.			
Anti-requisite(s)	You cannot take this module if you take EC4499			
Learning and teaching methods of delivery:	Weekly contact: 1 lecture (x 5 weeks), 1 supervision meeting (x 3 weeks)			
	Scheduled learning: 8 hours		Guided independent study: 192 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 20%, Coursework = 80%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Research project revise and resubmit = 100%			
Module coordinator:	Dr V Prasad			
Module teaching staff:	Vivek Prasad			

EC4499 Dissertation in Economics			
SCOTCAT Credits:	40	SCQF level 10	Semester Full Year
Academic year:	2021-2022		
Availability restrictions:	Available only to students in the second year of any Honours Economics Programmes.		
Planned timetable:	11.00 am - 12.00 noon Thu (Weeks 2, 4 and 8 only)		
<p>This module is designed to develop students' independent research, writing and presentation skills. The dissertation should present original research applying economic and/or econometric methods to a selected topic in economics. The topic should be chosen by students in consultation with their supervisor. Students require approval for their preliminary dissertation outline from both the supervisor and the Principal Module Teacher by the end of the first week of Semester 1. The maximum number of words allowed is 15,000 but students will be advised to cover the topic in around 12,000. The lecture part of the module will train students' research skills in framing a research hypothesis, conducting bibliographic research, writing a literature survey, structuring a research paper, and presenting research results.</p>			
Pre-requisite(s):	Before taking this module you must pass EC3301		
Anti-requisite(s)	You cannot take this module if you take EC4498		
Learning and teaching methods of delivery:	Weekly contact: 5 lectures and 6 meetings with supervisor over the year.		
	Scheduled learning: 11 hours	Guided independent study: 389 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%		
	As used by St Andrews: Coursework = 100%		
Re-assessment pattern:	Dissertation revise and resubmit = 100%		
Module coordinator:	Dr V Prasad		
Module teaching staff:	Vivek Prasad		

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EC5201 Macroeconomics			
SCOTCAT Credits:	20	SCQF level 11	Semester 1
Academic year:	2021-2022		
Availability restrictions:	Undergraduate Students: available with the permission of the Director of Teaching only to students in the second year of the Honours programme who have achieved at least 17.5 in EC3303 or EC3306.		
Planned timetable:	To be arranged.		
<p>The module will provide a thorough advanced treatment of the core models and concepts used in modern macroeconomics; for example the infinite horizon Ramsey model and finite horizon overlapping generations model and models that have been used to characterise short term fluctuations, such as the real business cycle approach and the New Keynesian approach. Among other things, the module will seek to explain the development of microbased macroeconomic theory, use models to predict the impact of policy changes on endogenous variables and critique modelling assumptions, especially in the context of policy analysis. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module, supplementary lectures will be given on the relevant mathematical methods.</p>			
Pre-requisite(s):	Undergraduate - Undergraduate students must be in the second year of an Honours programme, have scored 17.5 or greater in EC3303 or EC3306 and have the permission of the Director of Teaching.		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 30 hours	Guided independent study: 170 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%		
	As used by St Andrews: 3-hour Written Examination = 60%, Coursework (including class test 15%) = 40%		
Re-assessment pattern:	3-hour Written Examination = 100%		
Module coordinator:	Dr O Senay		
Module teaching staff:	Ozge Senay		

EC5202 Microeconomics			
SCOTCAT Credits:	20	SCQF level 11	Semester 1
Academic year:	2021-2022		
Availability restrictions:	Undergraduate Students: available with the permission of the Director of Teaching only to students in the second year of the Honours programme who have achieved at least 17.5 in EC3302 or EC3305.		
Planned timetable:	To be arranged.		
<p>This module will provide a thorough advanced treatment of the core models and concepts used in modern microeconomics. Microeconomic theory is concerned with the behaviour of individual economic actors (e.g. firms, consumers) and the aggregation of their actions in different institutional frameworks (e.g. markets), and models economic activity as an interaction of individual economic agents pursuing their private interests. Students will be presented with a set of concepts and mathematical techniques which will enable them to achieve a better understanding of economic activity and outcomes. This involves an understanding of how microeconomic models are built, focusing on their objective in terms of the phenomenon they are meant to explain, and the consequences of their assumptions in terms of the applicability of their predictions. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module, supplementary lectures will be given on the relevant mathematical methods.</p>			
Pre-requisite(s):	Undergraduate - Undergraduate students must be in the second year of an honours programme, have scored 17.5 or greater in EC3302 or EC3305		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).		
	Scheduled learning: 30 hours	Guided independent study: 170 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%		
	As used by St Andrews: 3-hour Written Examination = 60%, Coursework (including class test 15%) = 40%		
Re-assessment pattern:	3-hour Written Examination = 100%		
Module coordinator:	Dr M Zhang		
Module teaching staff:	Min Zhang		

EC5203 Econometric Methods and Applications			
SCOTCAT Credits:	20	SCQF level 11	Semester 1
Academic year:	2021-2022		
Availability restrictions:	Undergraduate Students: available with the permission of the Director of Teaching only to students in the second year of the Honours programme who have achieved at least 17.5 in EC4401.		
Planned timetable:	To be arranged.		
<p>This module will provide an advanced level training in aspects of econometric methods that is suitable for the basis for further work in econometrics and for understanding/being able to extract econometric techniques in published articles. The course will also give students the basis to support an empirical section in their MSc dissertation. Students are expected to have intermediate- level knowledge of matrix algebra, calculus and statistics. Before commencement of the module, supplementary lectures will be given on the relevant mathematical and statistical methods.</p>			
Pre-requisite(s):	Undergraduate - Undergraduate students must be in the second year of an honours programme, have scored 17.5 or greater in EC4401		
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 8 weeks), 2-hour computing labs (x 2 weeks) plus 1 office hour (x 12 weeks)		
	Scheduled learning: 32 hours	Guided independent study: 168 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%		
	As used by St Andrews: Written Examination = 60%, Coursework = 40%		
Re-assessment pattern:	3-hour Written Examination = 100%		
Module coordinator:	Dr I Merkurieva		
Module teaching staff:	Irina Merkurieva		