#### **School of Economics & Finance**

#### **Economics & Finance (EC) modules**

EC3301 Econometrics						
	SCOTCAT Credits:	20	SCQF Level 9	Semester	1	
	Academic year:	2018/9				
	Planned timetable:	9.00 am - 11.00 am Tue.				

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.

Pre-requisite(s):	Permission of the economics honours adviser			
Learning and teaching	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 2-hour practical classes (x 4 weeks) 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
methods of delivery:	Scheduled learning: 33 hours	Guided independent study: 167 hours		
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	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 M R Polisson				
Module teaching staff: Dr M Polisson				

# EC3302 Decision and Game Theory

SCOTCAT Credits:	20	SCQF Level 9	Semester	1	
Academic year:	2018/9				
Planned timetable:	9.00 am - 11.00 ar	m Mon.			

Decision and Game Theory focuses on the decisions of economic agents and their behaviour 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 auctions, bargaining, oligopoly, financing decisions, voting, and many more.

Pre-requisite(s):	Permission of the economics honours adviser			
Learning and teaching methods of delivery:	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours		
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	As used by St Andrews: Coursework (Bi Weekly Quizzes) = 25%, Examination (Class Test = 15%, 2-hour Wrtten Examination = 60%) = 75%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Prof A Zapechelnyuk			

# **EC3303 Economic Growth**

23 Economic Growth						
SCOTCAT Credits:	20	SCQF Level 9	Semester	1		
Academic year: 2018/9						
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	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours		
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	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:	tor: Dr A W Trew			
Module teaching staff:	Dr Alex Trew			

### **EC3304 Mathematical Economics**

SCOTCAT Credits:	20	SCQF Level 9	Semester	1	
Academic year:	2018/9				
Planned timetable:	9.00 am - 11.00 ar	n 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:	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours		
	As defined by QAA: Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
Assessment pattern:	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			

# EC3305 Incentives, Contract and Markets SCOTCAT Credits: 20 SCQF Level 9 Semester 2 Academic year: 2018/9 Planned timetable: To be arranged.

This module will address economic institutions when agents interact under informational asymmetries. The main models of the theory of contracts, particularly the basic models of adverse selection, signalling, and moral hazard, as well as the theory of mechanism and market design, will be discussed with emphasis on their applications for understanding the internal organisation of firms, taxation, regulation, insurance and labour markets, education, and many other aspects of economics.

Pre-requisite(s):	Permission of the economics honours adviser			
Learning and teaching	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks plus 1 office hour (x 12 weeks).			
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours		
A	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	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 L Bridet			
Module teaching staff:	Dr Luc Bridet			

### **EC3306 Economic Fluctuations**

SCOTCAT Credits:	20	SCQF Level 9	Semester	2
Academic year:	2018/9			
Planned timetable:	To be arranged.			

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.

Pre-requisite(s):	Permission of the economics honours adviser			
Learning and teaching	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).			
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours		
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	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:	Dr R Stefanski			

# **EC3307 Computational Economics**

or comparational Economics						
SCOTCAT Credits:	20	SCQF Level 9	Semester	1		
Academic year:	2018/9					
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 pa	ss EC3304 or pass MT1002
Learning and teaching	Weekly contact:	
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 180 hours
	As defined by QAA: Written Examinations = 25%, Practical	Examinations = 0%, Coursework = 75%
Assessment pattern:	As used by St Andrews: Written Examination (In-class Test) = 2	5%, Coursework = 75%
Re-assessment pattern:	Programming Project = 100%	
Module coordinator:	Dr R L Stefanski	
Module teaching staff:	Dr R Stefanski	

#### **EC4401 Advanced Econometrics**

SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to General Adviser	ral Degree students v	vith the permission of th	e Honours
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 pa	ss EC3301 or pass MT3508
Learning and teaching	Weekly contact: 20 hours of lectures of (x 3 weeks), 1-hour tutorial (x 5 weeks)	over 11 weeks, , 2-hour practical classes plus 1 office hour (x 12 weeks).
methods of delivery:	Scheduled learning: 31 hours	Guided independent study: 169 hours
	As defined by QAA: Written Examinations = 100%, Practica	al Examinations = 0%, Coursework = 0%
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 50%, Co. 50%	ursework (incl. 2 x Class Test 25% each) =
Re-assessment pattern:	2-hour Written Examination = 100%	
Module coordinator:	Prof J R McCrorie	
Module teaching staff:	Prof R McCrorie	

02 Economic History				
SCOTCAT Credits:	20	SCQF Level 10	Semester	1
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	ral Degree students	s with the permission	on of the Honours
Planned timetable:	2.00 pm - 4.00 pm	ı Thu.		
of financial crisis; and the have long historical antecuses theoretical and econ Learning and teaching	cedents. We will troometric analysis.  Weekly contact:	eat these questions 20 hours of lecture	s with a modern rig	· ·
methods of delivery:	plus 1 office hour  Scheduled learning	,	Guided indepen	dent study: 175 hours
Assessment matterns	As defined by QA	A:		)%, Coursework = 25%
Assessment pattern:	As used by St And 2-hour Written Ex		Coursework (incl. Cl	ass Test 25%) = 50%
Re-assessment pattern:	2-hour Written Ex	amination = 100%		
Module coordinator:	Dr A W Trew	·	·	_

5 Economics of the E	nvironment			
SCOTCAT Credits:	20	SCQF Level 10	Semester	1
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	ral Degree students	with the permission of t	he Honours
Planned timetable:	2.00 pm - 4.00 pm	n Tue.		
policy building on curre background will be emp developed world will be s	hasized. Specific patudied.		•	
Learning and teaching	-		over 11 weeks, 1-hour t	utorial (x 5 weeks)
-	Weekly contact: plus 1 office hour Scheduled learning	(x 12 weeks).	over 11 weeks, 1-hour t	
methods of delivery:	plus 1 office hour Scheduled learnii As defined by QA	(x 12 weeks). ng: 25 hours A:		study: 175 hours
methods of delivery:	plus 1 office hour Scheduled learnin As defined by QA Written Examina As used by St And	(x 12 weeks). ng: 25 hours A: tions = 75%, Practical drews:	Guided independent	study: 175 hours ursework = 25%
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methods of delivery:  Assessment pattern:	plus 1 office hour  Scheduled learnin  As defined by QA  Written Examina  As used by St And  2-hour Written Ex	(x 12 weeks). ng: 25 hours A: tions = 75%, Practica drews: camination = 50%, C	Guided independent s	study: 175 hours ursework = 25%

07 Behavioural Econo	mics			
SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	ral Degree students	with the permission of the	ne Honours
Planned timetable:	To be arranged.			
settings that range from person decision problems assumptions of rational control as well as in multibe discussed.	s. The module will hoice in order to e period decision pro	introduce theoretic xplain observed beh oblems. When relev	cal models that deviate f navioural patterns that ar	rom the standard ise both in single- esponses will also
Learning and teaching	plus 1 office hour	(x 12 weeks).		·
methods of delivery:	Scheduled learning	ng: 25 hours	Guided independent s	tudy: 175 hours
Accordment nattorns	As defined by QA Written Examina		al Examinations = 0%, Cou	ursework = 25%
Assessment pattern:	As used by St And 2-hour Written Ex		oursework (incl. 2 x Class	Tests 25%) = 50%
Re-assessment pattern:	2-hour Written Ex	camination = 100%		
Module coordinator:	Dr G Gerasimou	_	_	_

SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	ral Degree students	with the permission	on of the Honours
Planned timetable:	To be arranged.			
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game theoretic terms; r innovation; mergers. Learning and teaching	Weekly contact:	economies of scal  20 hours of lectures	e, entry and exit;	n, including discussion product differentiation hour tutorial (x 5 week
innovation; mergers.  Learning and teaching	Weekly contact: plus 1 office hour	economies of scal  20 hours of lectures (x 12 weeks).	e, entry and exit; s over 11 weeks, 1-	product differentiation
innovation; mergers.  Learning and teaching methods of delivery:	Weekly contact: plus 1 office hour Scheduled learnin As defined by QA	economies of scal  20 hours of lectures (x 12 weeks).  ng: 37 hours  A:	Guided indepen	product differentiatio
innovation; mergers.  Learning and teaching	Weekly contact: plus 1 office hour Scheduled learnin As defined by QA Written Examinat As used by St And	20 hours of lectures (x 12 weeks).  ng: 37 hours  A: tions = 75%, Practic	Guided indepen	product differentiation hour tutorial (x 5 weeks adent study: 163 hours
innovation; mergers.  Learning and teaching methods of delivery:	Weekly contact: plus 1 office hour Scheduled learnin As defined by QA Written Examinat As used by St And 2-Hour Written Ex	20 hours of lectures (x 12 weeks).  ng: 37 hours  A: tions = 75%, Practic	Guided indepen	hour tutorial (x 5 week  ndent study: 163 hours  0%, Coursework = 25%

9 international Maci	roeconomics				
SCOTCAT Credits:	20	SCQF Level 10	Semester	1	_
Academic year:	2018/9				
Availability restrictions:	Available to Gene Adviser	eral Degree students	with the permiss	ion of the I	Honours
Planned timetable:	11.00 am - 1.00 p	m Fri.			
to deepen understanding	g of the functionin	•	-	_	
familiarise students with	some key issues in Weekly contact:	g of the internation the literature of int 20 hours of lectures	nal monetary and ernational macro	financial s economics.	system, and t
familiarise students with  Learning and teaching	some key issues in	g of the internation the literature of int 20 hours of lectures (x 12 weeks).	nal monetary and ernational macro	financial s economics. L-hour tuto	system, and t orial (x 5 week
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to deepen understanding familiarise students with Learning and teaching methods of delivery:  Assessment pattern:  Re-assessment pattern:	Weekly contact: plus 1 office hour Scheduled learnin As defined by QA Written Examina As used by St And 2-hour Written Ex	g of the internation the literature of int 20 hours of lectures (x 12 weeks).  ng: 25 hours  A: tions = 75%, Practicedrews:	nal monetary and ernational macroes over 11 weeks, 1  Guided indepe  al Examinations =	financial seconomics. L-hour tuto Indent stud	system, and to be a similar or ial (x 5 week by the system) dy: 175 hours ework = 25%

LO International Trade	9			
SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	ral Degree students	with the permissio	on of the Honours
Planned timetable:	To be arranged.			
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and relevant empirical evi	idence and major p dule will cover tra uch a framework, e Weekly contact:	olicy issues arising i aditional (neoclass especially based on 20 hours of lectures	n open economies t ical) economics ar experience of deve	that are becoming mond
and relevant empirical evi relevant today. The mo- challenges presented to s Learning and teaching	idence and major p dule will cover tra uch a framework, e	olicy issues arising in aditional (neoclass especially based on 20 hours of lectures (x 12 weeks).	n open economies to ical) economics an experience of deve	that are becoming mond and also discuss varion loping countries.
and relevant empirical evi relevant today. The mo- challenges presented to s	idence and major p dule will cover tra uch a framework, e Weekly contact: plus 1 office hour Scheduled learnin As defined by QA Written Examinat	olicy issues arising is aditional (neoclass especially based on 20 hours of lectures (x 12 weeks).  ag: 25 hours  A: tions = 75%, Practic lrews:	n open economies to ical) economics an experience of development of the conomics and experience of development of the conomics and examinations = 0	that are becoming mond also discuss various loping countries.  Hour tutorial (x 5 weed dent study: 175 hour ways, Coursework = 25%)
and relevant empirical evirelevant today. The mochallenges presented to s  Learning and teaching methods of delivery:	idence and major p dule will cover tra uch a framework, e Weekly contact: plus 1 office hour Scheduled learnin As defined by QA Written Examinat	olicy issues arising is aditional (neoclass especially based on 20 hours of lectures (x 12 weeks).  ag: 25 hours  A:  cions = 75%, Practic lrews:  amination = 50%, C	n open economies to ical) economics an experience of development of the conomics and experience of development of the conomics and examinations = 0	that are becoming mond also discuss various loping countries.  Hour tutorial (x 5 weed dent study: 175 hour
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The purpose of the module is to explore the macroeconomic and monetary issues involved in European economic integration. After a historical introduction focused on the question of why the members of the EC/EU have sought a single market for trade and then monetary union, the module provides a thorough examination of the theory of optimum currency areas, including trade and capital market linkages; convergence; and the role of exchange rate stability (real or nominal) from a European perspective. We then investigate the monetary policy strategy of the ECB; the need for and use of fiscal policy in a currency union; the Stability Pact; fiscal federalism; the relationship between fiscal and monetary policy; and the desirability of fiscal rules to ensure financial sustainability. Finally, we will examine labour market difficulties and structural reform in the EU.

Anti-requisite(s)	You cannot take this module if you take	e EC4513 or take EC4613
Learning and teaching	<b>Weekly contact</b> : 20 hours of lectures of plus 1 office hour (x 12 weeks).	over 10 weeks, 1-hour tutorial (x 5 weeks)
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours
Assessment pattern:	As defined by QAA: Written Examinations = 75%, Practical	Examinations = 0%, Coursework = 25%
Assessment pattern.	As used by St Andrews: 2-hour Written Examination = 50%, Co.	ursework (incl. Class Test 25%) = 50%
Re-assessment pattern:	2-hour Written Examination = 100%	
Module coordinator:	Dr M M Mitka	
Module teaching staff:	Dr G Mitka	

SCOTCAT Credits:	20	SCQF Level 10	Semeste	er	2
Academic year:	2018/9				
Availability restrictions:	Available to Gene Adviser	eral Degree student	s with the p	ermission of th	ne Honours
Planned timetable:	To be arranged.				
monetary policy transpa targeting, monetary and	fiscal policy in a de				
	Weekly contact:	policy in a number 20 hours of lecture		ns (e.g. ECB, Ba	ank of England).
Learning and teaching	Weekly contact: plus 1 office hour	20 hours of lecture (x 12 weeks).	es over 11 w	ns (e.g. ECB, Ba reeks, 1-hour tu	ank of England). utorial (x 5 weeks
Learning and teaching methods of delivery:	Weekly contact: plus 1 office hour Scheduled learni As defined by QA Written Examina As used by St And	20 hours of lecture (x 12 weeks). ng: 25 hours AA: ations = 75%, Practi drews:	Guided i	ns (e.g. ECB, Ba eeks, 1-hour tu independent st tions = 0%, Cou	ank of England). utorial (x 5 weeks tudy: 175 hours ursework = 25%
Learning and teaching methods of delivery:  Assessment pattern:	Weekly contact: plus 1 office hour Scheduled learni As defined by QA Written Examina As used by St And 2-hour Written Ex	20 hours of lecture (x 12 weeks). ng: 25 hours AA: ations = 75%, Practi	Guided i	ns (e.g. ECB, Ba eeks, 1-hour tu independent st tions = 0%, Cou	ank of England). utorial (x 5 weeks tudy: 175 hours ursework = 25%
Learning and teaching methods of delivery:	Weekly contact: plus 1 office hour Scheduled learni As defined by QA Written Examina As used by St And 2-hour Written Ex	20 hours of lecture (x 12 weeks). ng: 25 hours AA: ations = 75%, Practi drews: xamination = 50%,	Guided i	ns (e.g. ECB, Ba eeks, 1-hour tu independent st tions = 0%, Cou	ank of England). utorial (x 5 weeks tudy: 175 hours ursework = 25%

SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9		•	
Availability restrictions:	Available to Gene Adviser	ral Degree students	with the permission o	f the Honours
Planned timetable:	To be arranged.			
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Learning and teaching	· ·		over 11 weeks, 1-hou	r tutorial (x 5 weeks
	plus 1 office hour	(x 12 weeks).		
methods of delivery:	plus 1 office hour Scheduled learnir As defined by QA Written Examinat	(x 12 weeks). ng: 37 hours A: tions = 75%, Practica	Guided independer  Examinations = 0%, 0	nt study: 163 hours
methods of delivery:	plus 1 office hour Scheduled learnir As defined by QA Written Examinat As used by St And	(x 12 weeks). ng: 37 hours A: tions = 75%, Practica lrews:	Guided independen	nt study: 163 hours  Coursework = 25%
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SCOTCAT Credits:	20	SCQF Level 10	Sei	mester	1	1
Academic year:	2018/9	1000. 2010. 20	00.			
Availability restrictions:	-	eral Degree student	ts with	the permission	n of the	Honours
Planned timetable:	2.00 pm - 4.00 pr	n Mon.				
	-	ue of financial clai			-	-
notion of risk versus ret determined and traded ir investigated, together wi	turn is defined and financial markets the supporting descriptions when the supporting descriptions are the supporting descript	nd analytical econo . Both normative ar riptive and empiric 20 hours of lecture	omic m nd posi al evid	nodels of how tive aspects of ence.	risks a	y. The standa and returns a al theory will
notion of risk versus ret determined and traded in investigated, together wi Learning and teaching	turn is defined ar financial markets th supporting desc Weekly contact: plus 1 office hou	nd analytical econo . Both normative ar riptive and empiric 20 hours of lecture r (x 12 weeks).	omic m nd posi al evid es over	nodels of how tive aspects of ence. 11 weeks, 1-h	risks a financia	y. The standa and returns a al theory will orial (x 5 wee
notion of risk versus ret determined and traded ir investigated, together wi	turn is defined and financial markets the supporting descriptions when the supporting descriptions are the supporting descript	nd analytical econo . Both normative ar riptive and empiric 20 hours of lecture r (x 12 weeks).	omic m nd posi al evid es over	nodels of how tive aspects of ence.	risks a financia	y. The standa and returns a al theory will orial (x 5 wee
notion of risk versus red determined and traded in investigated, together wi Learning and teaching methods of delivery:	turn is defined ar financial markets th supporting desc Weekly contact: plus 1 office hou Scheduled learni As defined by QA	nd analytical econor. Both normative arcriptive and empiric 20 hours of lecture (x 12 weeks).  ng: 25 hours	omic m nd posi al evid es over Gu	nodels of how tive aspects of ence. 11 weeks, 1-h	risks a financia nour tuto	y. The standa and returns a al theory will orial (x 5 weel ady: 175 hours
notion of risk versus red determined and traded in investigated, together wi Learning and teaching methods of delivery:	turn is defined an financial markets th supporting describes 1 office house 1 office house 2 off	nd analytical econor. Both normative ar criptive and empirice 20 hours of lecture (x 12 weeks).  ng: 25 hours  AA: ations = 75%, Practi	omic mod posical evides over  Gu  cal Exa	nodels of how tive aspects of lence.  11 weeks, 1-h  ided independ	risks a financia	y. The standa and returns a al theory will orial (x 5 weels ady: 175 hours sework = 25%
notion of risk versus red determined and traded in investigated, together with Learning and teaching	turn is defined and financial markets the supporting described by Scheduled learning As defined by Quarter Examina As used by St An 2-hour Written Examina As used by	nd analytical econor. Both normative ar criptive and empirical 20 hours of lecture (x 12 weeks).  ng: 25 hours  AA:  ations = 75%, Practical drews:	omic mond posical evides over  Gu  cal Exa  Course	nodels of how tive aspects of lence.  11 weeks, 1-h  ided independ	risks a financia	y. The standa and returns a al theory will orial (x 5 weels ady: 175 hours sework = 25%

118 Financial Economic	s: Corporate Fi	nance		
SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	ral Degree students v	vith the permission of th	e Honours
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.

Learning and teaching	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 we plus 1 office hour (x 12 weeks).				
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours			
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 2				
Assessment pattern:	us used by St Andrews: -hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%				
Re-assessment pattern:	2-hour Written Examination = 100%				
Module coordinator:	Dr V Prasad				

EC442	20 Inequality and Red	listribution			
	SCOTCAT Credits:	20	SCQF Level 10	Semester	1
	Academic year:	2018/9			
	Availability restrictions:	Available to Gener Adviser	ral Degree students w	vith the permission of the	e Honours
	Planned timetable:	Tuesday 11-1pm			

The module is designed to foster an understanding of economic inequality both from theoretical and practical perspectives. It mainly aims to convey how economists approach and deal with inequalities of income, wealth and consumption of inequalities of non-income variables such as health or education both between individuals and between social groups such as gender or ethnic groups. How different inequalities are assessed by international institutions such as World Bank and how relevant policies are produced in return are of main concerns of the module. The driving forces of economic inequality and its relation to other economic criteria such as growth are analysed as well from a historical global perspective.

Anti-requisite(s)	You cannot take this module if you take EC4520			
Learning and teaching methods of delivery:	Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 we plus 1 office hour (x 12 weeks).  Scheduled learning: 25 hours  Guided independent study: 175 hours			
methods of delivery:				
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 50%, Co.	ursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%			
Module teaching staff:	TBC			

SCOTCAT Credits:	5	SCQF Level 10	Semester	<del>1</del>
Academic year:	<del>2018/9</del>			
Availability restrictions:	School of Economic		enours year of a degr	ee programme ii
Planned timetable:	To be arranged			
institutes, university aca a particular modes of co	demics, international mmunication and er	l organisations, b ngagement mech	anisms adopted by	or address the m economists (inte
institutes, university aca a particular modes of co newspaper articles, lette etc).	demics, international mmunication and er	l organisations, b ngagement mech oular level or aca	anks, civil servants) o anisms adopted by demic books, blogs,	or address the m economists (inte
institutes, university aca a particular modes of co newspaper articles, lette	demics, international mmunication and er rs and editorials, pop	l organisations, b ngagement mech pular level or aca hour supervision	anks, civil servants) o anisms adopted by demic books, blogs,	or address the m economists (inte videos, internet
institutes, university aca- a particular modes of co- newspaper articles, lette etc). Learning and teaching methods of delivery:	weekly contact: 1 Scheduled learning As defined by QAA	l organisations, b ngagement mech pular level or aca hour supervision g: 2 hours	anks, civil servants) of anisms adopted by demic books, blogs, at (x2 weeks)	or address the meconomists (inte videos, internet dent study: 48 h
institutes, university aca- a particular modes of conewspaper articles, letten etc). Learning and teaching	weekly contact: 1 Scheduled learning As defined by QAA	l organisations, bengagement mechepular level or aca hour supervisions: 2 hours downs: 2 hours downs: 0%, Practices:	anks, civil servants) of anisms adopted by demic books, blogs, or (x2 weeks)  Guided indepen	or address the meconomists (intervideos, internet dent study: 48 h
institutes, university aca- a particular modes of co- newspaper articles, lette etc). Learning and teaching methods of delivery:	Weekly contact: 1 Scheduled learning As defined by QAA Written Examination	l organisations, bengagement mechepular level or aca hour supervisions: 2 hours :: 2 hours :: ons = 0%, Practice ews:	anks, civil servants) of anisms adopted by demic books, blogs, or (x2 weeks)  Guided indepen	or address the meconomists (inte videos, internet dent study: 48 h

4 The Economics of I		CCOF Lovel 10	Compostor	T <sub>2</sub>
SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to Gene Adviser	eral Degree students	with the permission	on of the Honours
Planned timetable:	To be arranged.			
empirical methods to uno	reistano me decisi			
government budgets, the on source countries and in on immigration and will t	effect of diversity mmigration policie	on economic perfor s. The module will h	mance, the effect o	f high-skilled emigra
government budgets, the on source countries and in on immigration and will the Learning and teaching	effect of diversity mmigration policie rain students' abili	on economic perfor s. The module will he ty to critically asses 2 hours of lectures	mance, the effect o ave a strong focus o s this evidence.	-
government budgets, the on source countries and in on immigration and will the Learning and teaching	effect of diversity mmigration policie rain students' abili Weekly contact:	on economic perfor s. The module will ha ty to critically asses 2 hours of lectures (x 12 weeks).	mance, the effect of ave a strong focus of sthis evidence.  over 11 weeks, 1-ho	f high-skilled emigra n the empirical evide
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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 take EC3301 or take MT3508 or take EC5203			
Learning and teaching methods of delivery:	<b>Weekly contact</b> : 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 optional office hour (x 12 weeks)			
methods of delivery:	Scheduled learning: 25 hours	Guided independent study: 175 hours		
	As defined by QAA: Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 50%, Co.	ursework (incl. Class Test 25%) = 50%		
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr T Barsbai			

## **EC4426 Practical Financial Modelling**

SCOTCAT Credits:	20	SCQF Level 10	Semester	2
Academic year:	2018/9			
Availability restrictions:	Available to Gener Adviser	ral Degree students v	vith the permission of th	e Honours
Planned timetable:	To be arranged	_		

Financial modelling using Microsoft Excel is used in many fields such as investment banking, mergers and acquisitions (M&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.

Dro roquisito(s).	Poforo taking this module you must no	sefore taking this module you must pass EC4430 and pass EC4417				
Pre-requisite(s):	Before taking this module you must pa	iss ec4430 and pass ec4417				
Learning and teaching	Weekly contact: 1-hour lecture (X11 weeks), 2-hour practical classes, Exc. (X 11 weeks)  Scheduled learning: 33 hours  Guided independent study: 168 h					
methods of delivery:						
Assassment nattorn.	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework					
Assessment pattern:	As used by St Andrews: 100% Coursework					
Re-assessment pattern:	100% Coursework					
Module coordinator:	Dr P G Egan					
Module teaching staff:	Dr P Egan					

27 Philosophy of Ecor	iomics	ı	1			
SCOTCAT Credits:	20	SCQF Level 10	Semester	1		
Academic year:	2018/9					
Availability restrictions:	Available to Gene Adviser	Available to General Degree students with the permission of the Honours Adviser				
Planned timetable:	To be arranged.					
methodological and ethic				9465		
students that want to consame material.	mplement their ba	sic economic unders	anding with a norr			
students that want to co same material. Anti-requisite(s)	You cannot take t	sic economic unders	eanding with a norr	mative approach to		
the reasoning and implistudents that want to consame material.  Anti-requisite(s)  Learning and teaching	You cannot take t	sic economic unders	eanding with a norr	mative approach to		
students that want to consame material.  Anti-requisite(s)  Learning and teaching	You cannot take t	sic economic unders his module if you tak Weekly lectures (2 h	e PY4657 ours) and fortnight	mative approach to		
students that want to consame material.  Anti-requisite(s)  Learning and teaching methods of delivery:	You cannot take t Weekly contact: Scheduled learnin As defined by QA	sic economic unders his module if you tak Weekly lectures (2 h ng: 37 hours	ee PY4657  ours) and fortnight  Guided independ	native approach to ly tutorial (1 hour) lent study: 168 hou		
students that want to consame material.  Anti-requisite(s)  Learning and teaching methods of delivery:	You cannot take t Weekly contact: Scheduled learnin As defined by QA Written Examina As used by St And	his module if you tak Weekly lectures (2 h ng: 37 hours A: tions = 34%, Practica	e PY4657  ours) and fortnight  Guided independ  Examinations = 09	native approach to ly tutorial (1 hour) lent study: 168 hou		
students that want to consame material.  Anti-requisite(s)	You cannot take t Weekly contact: Scheduled learnii As defined by QA Written Examina As used by St And Coursework = 669	his module if you tak Weekly lectures (2 h ng: 37 hours A: tions = 34%, Practica drews:	e PY4657  ours) and fortnight  Guided independ  Examinations = 09	native approach to ly tutorial (1 hour) lent study: 168 hou		

SCOTCAT Credits:	20	SCQF Level 10	Semester	1
Academic year:	2018/9	•	•	•
Availability restrictions:	Available to Ger Adviser	eral Degree student	s with the permission	n of the Honours
Planned timetable:	ТВС			
management and portfo with the opportunity to research in the field of portfolio composition and <b>Pre-requisite(s):</b>	develop their ab	oility to critically undersement and the imposement strategies.	derstand current the lications of such res	eoretical and empirica
		is module vou must	D922 EC441/	
Anti-requisite(s)	You cannot take	•	•	
Learning and teaching		this module if you t : 20 hours of lecture	ake EC4204	our tutorial (x 5 weeks
Learning and teaching	Weekly contact	this module if you t : 20 hours of lecture ir (x 12 weeks).	ake EC4204 s over 11 weeks, 1-h	our tutorial (x 5 weeks
Learning and teaching methods of delivery:	Weekly contact plus 1 office hou Scheduled learn As defined by Q	this module if you to 20 hours of lecture or (x 12 weeks).  Ling: 25 hours  AA:	ake EC4204 s over 11 weeks, 1-h Guided independ	
Learning and teaching methods of delivery:	Weekly contact plus 1 office hou Scheduled learn As defined by Q Written Examin As used by St Ai	this module if you t  20 hours of lecture (x 12 weeks).  ing: 25 hours  AA: ations = 75%, Praction	ake EC4204 s over 11 weeks, 1-h Guided independ	dent study: 175 hours %, Coursework = 25%
Anti-requisite(s)  Learning and teaching methods of delivery:  Assessment pattern:  Re-assessment pattern:	Weekly contact plus 1 office hou Scheduled learn As defined by Q Written Examin As used by St Ai 2-hour Written I	this module if you t  20 hours of lecture (x 12 weeks).  ing: 25 hours  AA: ations = 75%, Praction	Guided independ	%, Coursework = 25%

EC443	EC4432 Development and Finance				
	SCOTCAT Credits:	20	SCQF Level 10	Semester	1
	Academic year:	2018/9			
	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.

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Learning and teaching	<b>Weekly contact</b> : 2 hours of lectures (x11 weeks), 1-hour tutorial (x 5 weeks) and 2 optional office hours dedicated to the module (x 12 weeks)			
methods of delivery:	Scheduled learning: 27 hours	Guided independent study: 166 hours		
A	As defined by QAA: Written Examinations = 80%, Practical Examinations = 0%, Coursework = 20%			
Assessment pattern:	As used by St Andrews: 2-hour Written Examination = 60%, Coursework (including class test 20%) = 40%			
Re-assessment pattern:	2-hour written examination = 100%			
Module coordinator:	Dr V Saxena			

98 Research Project i	n Economics				
SCOTCAT Credits:	20	SCQF Level 10	Semester	1	
Academic year:	2018/9	2018/9			
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 on	ly)		
application of economic discussion of existing res	odule is designed to develop students' independent research, writing and presentation skills in the tion of economic analysis to a selected topic in economics. The project will require initiative, a critical ion of existing research and development of an argument. The project may also include econometric 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 th	nis module if you take	e EC4499		
Learning and teaching	Weekly contact: 1 lecture (x 5 weeks), 1 supervision meeting (x 3 weeks)				
methods of delivery:	Scheduled learnin	g: 8 hours	Guided independent st	udy: 192 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 20%, Coursework = 80%  As used by St Andrews: Research Project = 80%, Coursework = 20%				
Assessment pattern:					
Re-assessment pattern:	3-hour Written Examination = 100%				
Module coordinator:	Dr M P Knowles				
Module teaching staff:	M Knowles				

# EC4499 Dissertation in Economics SCOTCAT Credits: 40 SCQF Level 10 Semester Full Year Academic year: 2018/9 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)

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.

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	Weekly contact: 5 lectures and 6 meetings with supervisor over the year.			
methods of delivery:	Scheduled learning: 11 hours	Guided independent study: 389 hours		
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 20%, Coursework = 80%			
Assessment pattern.	As used by St Andrews: Dissertation = 80%, Coursework = 20%			
Re-assessment pattern:	3-hour Written Examination = 100%			
Module coordinator:	Dr M P Knowles			
Module teaching staff:	M Knowles			

EC520	EC5201 Macroeconomics				
	SCOTCAT Credits:	20	SCQF Level 11	Semester	1
	Academic year:	2018/9			
	Availability restrictions:	UG - Available only to students in the second year of the Honours programme with the permission of the Director of Teaching who have achieved at least 17.5 in EC3303 or EC3306.			
	Planned timetable:	To be arranged.			

The module will provide a thorough advanced treatment of the core models and concepts used in modern macroeconomics; for example the infinite horison 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.

Pre-requisite(s):	Undegraduate 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	<b>Weekly contact</b> : 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).		
methods of delivery:	Scheduled learning: 30 hours	Guided independent study: 170 hours	
	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%		
Assessment pattern:	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		

# SCOTCAT Credits: 20 SCQF Level 11 Semester 1 Academic year: 2018/9 UG - Available only to students in the second year of the Honours programme with the permission of the Director of Teaching who have achieved at least 17.5 in EC3302 or EC3305. Planned timetable: To be arranged.

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.

Pre-requisite(s):	EC3303 or EC3306 and permission of the director of teaching		
Learning and teaching	<b>Weekly contact</b> : 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).		
methods of delivery:	Scheduled learning: 30 hours	Guided independent study: 170 hours	
Assassment nettern.	As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%		
Assessment pattern:	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 K Ozbek		
Module teaching staff:	Dr K Ozbek		

SCOTCAT Credits:	20	SCQF Level 11	Semester	1	
Academic year:	2018/9				
Availability restrictions:	UG - Available only to students in the second year of the Honours programme with the permission of the Director of Teaching who have achieved at least 17.5 in EC4401.				
Planned timetable:	To be arranged	l <b>.</b>			
techniques in published a in their MSc dissertation.	hed articles. The course will also give students the basis to support an empirical section ation. Students are expected to have intermediate- level knowledge of matrix algebra, cs. Before commencement of the module, supplementary lectures will be given on the call and statistical methods.				
Pre-requisite(s):	Undergraduate	Undergraduates require EC4401 and the permission of the director of teaching			
Learning and teaching	<b>Weekly contact</b> : 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)				
methods of delivery:	Scheduled lear	ning: 32 hours	Guided independer	nt study: 168 hours	
As defined by QAA: Written Examinations = 60%, Practical Examinations = 0%, Coursework				, Coursework = 40%	
Assessment pattern:	As used by St Andrews: 3-hour Written Examination = 60%, Coursework (including class test 15%) = 40%				
Re-assessment pattern:	3-hour Written Examination = 100%				
	Dr I Merkurieva				