

MODULE SPECIFICATION

Part 1: Information								
Module Title	Model Building in Economics 1							
Module Code	UMEDHK-15-1		Level	Level 4				
For implementation from	2020-	21						
UWE Credit Rating	15		ECTS Credit Rating	7.5				
Faculty	Faculty of Business & Law		Field	Economics				
Department	FBL [Dept of Accounting Economics & Finance						
Module type:	Stand	Standard						
Pre-requisites		None						
Excluded Combinations		None						
Co- requisites		None						
Module Entry requirements		None						

Part 2: Description

Educational Aims: This module introduces the student to the use of mathematics in economics. The main focus of the module will be to relate mathematical theory to economic theory.

Outline Syllabus: The module will typically cover topics such as: Basic algebra

Total Differentiation – rules and application to economic theory

Partial Differentiation – rules and application to economic theory

Curve sketching

Maxima and Minima

Logarithms and rules of Logarithms

Solving unconstrained optimisation problems

Solving constrained optimisation problems

Integration and functional forms related to economic theory

Teaching and Learning Methods: Module delivery will be based on 3 hours of contact time with staff that a student can expect in a week. This will comprise a 1 hour lecture and a 2-hour seminar.

The weighting towards seminars will allow students a clearer idea as to where their strengths and weaknesses lie with respect to the mathematical techniques they will be learning and how they relate to economic theory. Lectures will introduce and develop important mathematical techniques required to build standard economic models with seminars helping to re-enforce these techniques through practical examples. The 2-hour seminars will allow time for class discussions and for staff and students to feedback to each other. There is also scope for applications and problem solving on case materials.

In addition staff will be available during the semester during their office hours (2 hours a week) for face to face meetings. Some time may also be allocated to personal tutor sessions.

Queries and extended discussions with staff can also be approached virtually through e-mail.

Blackboard – This module is supported by Blackboard, where students will be able to find all necessary module documentation, including guidance on Further Reading within the module handbook/outline. Direct links to information resources will also be provided from within Blackboard

TEL - The module will make use of appropriate online materials, notably the Mathematics for Economics: enhancing Teaching and Learning (METAL) material available from the Economics Network. This resource has online tutorials as well as videos relating mathematics to real economic problems.

Scheduled learning includes lectures and seminars with the latter including practical classes and workshops.

Independent learning includes hours engaged with essential reading and assignment preparation and completion. These sessions constitute an average time per level. Scheduled sessions may vary slightly depending on the module choices you make.

Part 3: Assessment

The assessments provide students with an opportunity to use their mathematical skills to solve a number of different economic questions. There will be an emphasis on technical understanding and appropriateness of method used. Throughout the module students will be made aware by frequent signposting and formative feedback on problem solving examples, that they need to explain what their solutions/answers mean in an economic context. The nature of the material being covered lends itself to using many different real life examples.

The Assessment:

Component A1 : Online test - DEWIS -90mins. Students have two attempts at a multiple choice question test over a set time period. Questions will be randomly generated and the best of the two tests will be counted. Component A2 : A Problem Set exercise - analysis of a problem set to answer specific questions - completed over a two week window .

Component B: 2,000 word assignment that focusses on mathematical problem solving and economic interpretation.

First Sit Components	Final Assessment	Element weighting	Description
Written Assignment -	~	30 %	Written assignment
Component B			
Practical Skills Assessment -		40 %	DEWIS Test (online in BB with 2 attempts over a set
Component A			period)

STUDENT AND ACADEMIC SERVICES

Online Assignment - Component A		30 %	Problem Set analysis - 1000 word equivalent
			exercise
Resit Components	Final	Element	Description
	Assessment	weightin	
Online Assignment -		20 %	Written assignment
Component B	, , , , , , , , , , , , , , , , , , ,	50 %	
Examination (Online) -		70.9/	Written examination - 2000 word equivalent
Component A		70 %	conducted in a 24 hour window.

	Part 4: Teaching and Learning Methods					
Learning Outcomes	On successful completion of this module students will achieve the follo	wing learning	outcomes:			
	Module Learning Outcomes					
	Show a clear understanding of which mathematical techniques are needed to solve equilibrium problems.					
	Use integration to calculate areas beneath a variety of different economic curves and functional forms.					
	Demonstrate the importance of maxima and minima in the building of economic models.					
	Explain in words the economic implications of building mathematical	models.	MO4			
	Understand simple first order differential and difference equations and be able to apply their knowledge to simple problems in economic dynamics.					
	Understand elementary matrix algebra in a form suitable for application to econometrics and optimization.					
Contact Hours	Independent Study Hours:					
	independent study/sen-guided study	1.	114			
	Total Independent Study Hours:		14			
	Scheduled Learning and Teaching Hours:					
	Face-to-face learning	36				
	Total Scheduled Learning and Teaching Hours:	36				
	Hours to be allocated	150				
	Allocated Hours	1	150			
Reading List	The reading list for this module can be accessed via the following link:					
	nttps://uwe.ri.taiis.com/modules/umednk-15-1.ntml					

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Economics {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Economics {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20