



Module Specification

Model Building in Economics 11

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Part 1: Information

Module title: Model Building in Economics 11

Module code: UMEDKF-15-2

Level: Level 5

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Business & Law

Department: FBL Dept of Accounting Economics & Finance

Partner institutions: None

Delivery locations: Not in use for Modules

Field: Economics

Module type: Module

Pre-requisites: Model Building in Economics 1 2023-24

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes.

Outline syllabus: The module develops the use of mathematics in economic models.

The module focuses on the use of matrices and matrix algebra in the development and solution to economic problems, both static and dynamic.

The module will typically cover topics such as:

Vector and matrix algebra

Dynamic modelling

Dynamic modelling and phase diagrams

Optimization and decision making

Continuous and discrete time modelling

Part 3: Teaching and learning methods

Teaching and learning methods: Module delivery will be based on 3 hours of contact time per week. This may comprise a combination of lectures, lectorials, workshops and seminars. Lectures will introduce and develop important mathematical techniques required to build standard economic models, with seminars and/or workshops helping to re-enforce these techniques through practical examples. The 2-hour seminar/lectorial or lecture will include activities designed to enhance the understanding of the material delivered in the lectures and to apply the skills and knowledge learned from the lectures. There is also scope for class discussions and for staff and students to feedback to each other.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Express economic models in matrix notation.

MO2 Perform matrix algebra and manipulations to understand the solution of the model and comparative static properties.

MO3 Understand and apply a range of dynamic models and their solutions.

MO4 Evaluate and critically reflect on the use of mathematics in economics.

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/umedkf-15-2.html) via the following link <https://uwe.rl.talis.com/modules/umedkf-15-2.html>

Part 4: Assessment

Assessment strategy: The examinations will 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, invigilated test provide opportunities for formative feedback and self evaluation prior to the final examination.

The Assessment:

Assessment Task: 2-hour written examination - focus on applied problem solving and longer answers

Assessment Task: 1.5 hour invigilated test - focus on mathematical skills and technical understanding

Assessment components:

Examination (First Sit)

Description: Test 1.5 hours

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Examination (First Sit)

Description: Written Examination (2-hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Examination (Resit)

Description: Test 1.5 hours

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested:

Examination (Resit)

Description: Written Examination (2-hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Economics [Frenchay] BSc (Hons) 2022-23

Economics {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Economics {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2021-22