MODULE SPECIFICATION

| Part 1: Information |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Module Title | Model Building in Economics 11 |  |  |  |
| Module Code | UMEDKF-15-2 |  | Level | Level 5 |
| 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: | Standard |  |  |  |
| Pre-requisites |  | Model Building in Economics 1 2020-21 |  |  |
| Excluded Combinations |  | None |  |  |
| Co-requisites |  | None |  |  |
| Module Entry requirements |  | None |  |  |

## Part 2: Description

## 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

## STUDENT AND ACADEMIC SERVICES

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.

## Part 3: Assessment

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 component B tests provide opportunities for formative feedback and self evaluation prior to the final examination.

The Assessment:
Component A: online open book examination, completed in a 24 hour window. 2500 words equivalent. Focus on applied problem solving and longer answers.

Component B. 3 short online examinations, each 750 word equivalent, focusing on mathematical skills and technical understanding

| First Sit Components | Final <br> Assessment | Element <br> weighting | Description |
| :--- | :--- | :--- | :--- |
| Examination (Online) - <br> Component B |  | $15 \%$ | Online open book test $1-750$ words equivalent, <br> completed in a 24 hour window |
| Examination (Online) - <br> Component B |  | $15 \%$ | Online open book test $2-750$ words equivalent, <br> completed in a 24 hour window |
| Examination (Online) - <br> Component B | $\checkmark$ | $55 \%$ | Online open book test 3-750 words equivalent, <br> completed in a 24 hour window |
| Examination (Online) - <br> equivalent , completed in a 24 hour window |  |  |  |
| Resit Components | Final <br> Assessment | Element <br> weighting | Description <br> Examination (Online) - <br> Component B <br> Examination (Online) - <br> Component A |


| Part 4: Teaching and Learning Methods |  |  |
| :---: | :---: | :---: |
| Learning | On successful completion of this module students will achieve the following learning outcomes: |  |
|  | Module Learning Outcomes | Reference |
|  | Express economic models in matrix notation. | MO1 |
|  | Perform matrix algebra and manipulations to understand the solution of the model and comparative static properties. | MO2 |

## STUDENT AND ACADEMIC SERVICES

|  | Understand and apply a range of dynamic models and their solutions. | MO3 |
| :---: | :---: | :---: |
|  | Evaluate and critically reflect on the use of mathematics in economics. | MO4 |
| Contact | Independent Study Hours: |  |
|  | Independent study/self-guided study | 114 |
|  | Total Independent Study Hours: | 114 |
|  | Scheduled Learning and Teaching Hours: |  |
|  | Face-to-face learning | 36 |
|  | Total Scheduled Learning and Teaching Hours: | 36 |
|  | Hours to be allocated | 150 |
|  | Allocated Hours | 150 |
| Reading List | The reading list for this module can be accessed via the following link https://uwe.rl.talis.com/modules/umedkf-15-2.html |  |

## Part 5: Contributes Towards

This module contributes towards the following programmes of study:
Economics [Sep][SW][Frenchay][4yrs] BSc (Hons) 2019-20
Economics [Sep][FT][Frenchay][3yrs] BSc (Hons) 2019-20
Economics \{Foundation\} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19
Economics \{Foundation\} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

