## KentVision Code and title of the module

ECOX5003 Applied Econometrics

## Division and School/Department or partner institution which will be responsible for management of the module

Division of Human and Social Sciences

## The level of the module (Level 4, Level 5, Level 6 or Level 7)

Level 5

## The number of credits and the ECTS value which the module represents

30 credits (15 ECTS)

## Which term(s) the module is to be taught in (or other teaching pattern)

Autumn, Spring or Summer

## Prerequisite and co-requisite modules and/or any module restrictions

None

## The course(s) of study to which the module contributes

#### Compulsory to the following courses:

* BSc Economics (Hons) (Professional Economist)
* MSc Economics Conversion (Distance-Learning)

## The intended subject specific learning outcomes.

The module outcomes have references to the knowledge, skills and behaviours defined by the Institute for Apprenticeships and Technical Education for the Professional Economist (Integrated Degree): [Professional economist (integrated degree) / Institute for Apprenticeships and Technical Education](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.instituteforapprenticeships.org%2Fapprenticeship-standards%2Fprofessional-economist-integrated-degree-v1-0&data=05%7C01%7CL.Hallett%40kent.ac.uk%7C7494bad08dec4b7857e108db1e543e12%7C51a9fa563f32449aa7213e3f49aa5e9a%7C0%7C0%7C638137119386623151%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=MVRe4NQi2IwBoZEPNuY0gPYbZMSudZdZvwpX7m4m7EI%3D&reserved=0)

**On successfully completing the module students will be able to:**

8.1 Perform data transformations relevant to the analysis of the type of data and model (K1, K2, K3, K4, K6, K7)

8.2 Identify and appreciate the different types of models, data and data sources in economics (K1, K2, K3, K4, K6, K7)

8.3 Apply tests of model adequacy, particularly tests of the basic assumptions of the classic linear regression framework (K7, S1)

8.4 Interpret and analyse empirical results obtained from the application of time-series and cross section econometrics to economic data (K6, K7, S1)

## The intended generic learning outcomes. On successfully completing the module students will be able to:

9.1 Organise economic data and information so as to conduct basic econometric analysis (K7, S1)

9.2 Address economic problems quantitatively and analytically (K7, S1)

9.3 Analyse economic data and empirical models to support their understanding of economics (K7, S1)

9.4 Write and present empirical material in a coherent and structured manner (S2)

9.5 Plan work and study independently (S5)

## A synopsis of the curriculum

This module builds on the introductory data analysis and statistics modules in Stage 1. The quantitative estimation and evaluation of economic models are essential parts of the study and application of economics. This module provides an introduction to econometric theory and the application of econometric techniques to economic models and data. This is achieved by explaining key economic and econometric issues using applications of econometrics that quantify and evaluate economic theory and which provide an empirical evaluation of economic behaviour and the assessment of economic policy.

The module provides both an analytical and practitioner introduction to econometric theory, equipping students with the analytical tools to carry out applied econometric work and to explore more advanced areas of econometric theory at later stages of their chosen degree course. The practice and application of econometrics is achieved using both Microsoft Excel and specialist econometric software.

The topics considered in the module include:

* Models and data; ordinary least squares (OLS), properties of OLS, multiple linear regression, inference, confidence intervals, hypothesis tests, multicollinearity, heteroscedasticity, autocorrelation, dummy variables, functional form, linear restrictions, diagnostic testing and panel data.
* Stationary and non-stationary data; trend- and difference-stationary processes, stationary autoregressive models, multivariate stationary models, spurious regression, cointegration, ADF tests, forecasting.

## Reading list

The University is committed to ensuring that core reading materials are in accessible electronic format in line with the Kent Inclusive Practices.

The most up to date reading list for each module can be found on the university's [reading list pages](https://kent.rl.talis.com/index.html).

## Contact Hours

Private Study: 100

Directed Learning: 200

Total: 300

## Assessment methods

* 1. Main assessment methods

VLE Quiz 1 (25 minutes) (12.5%)

VLE Quiz 2 (25 minutes) (12.5%)

VLE Quiz 3 (25 minutes) (12.5%)

VLE Quiz 4 (25 minutes) (12.5%)

1,500 word econometric report (50%)

* 1. Reassessment methods

100% coursework

Taken again in the following trimester, in order to achieve the overall pass mark of 40%

## Map of module learning outcomes (sections 8 & 9) to learning and teaching methods and methods of assessment (section 13)

**Module learning outcomes against learning and teaching methods:**

| Module learning outcome | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Lecture | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| Seminar | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Workshop | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

**Module learning outcomes against assessment methods:**

| Module learning outcome | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VLE Quiz 1 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| VLE Quiz 2 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| VLE Quiz 3 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| VLE Quiz 4 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Econometric Report | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

## Inclusive module design

The Division recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

## Campus(es) or centre(s) where module will be delivered

Canterbury, employer premises and London/Leeds.

## Internationalisation

The module provides students with the analytical skills to abstract, simplify and explain microeconomic theory and behaviour in the context of real world issues. It develops a range of analytical skills and techniques that are globally transferrable.

**DIVISIONAL USE ONLY**

**Module record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

| Date approved | New/Major/Minor revision | Start date of delivery of (revised) version | Section revised (if applicable) | Impacts PLOs (Q6 & 7 cover sheet) |
| --- | --- | --- | --- | --- |
| 19.02.21 | Major | September 2020 | 13,14 | No |
| 21.07.21 | Minor | September 21 | 4,6,7,13,14 | No |
| 20.03.23 | Minor | September 2023 | 8, 13 | No |