

MODULE DESCRIPTOR

TITLE	Econometrics for Business Economics
SI MODULE CODE	44-6873-00L
CREDITS	20
LEVEL	6
JACS CODE	L140
SUBJECT GROUP	<i>International Business</i>
DEPARTMENT	<i>Management</i>
MODULE LEADER	<i>Issam Malki</i>

MODULE STUDY HOURS (based on 10 hours per credit)*			
Scheduled Learning and Teaching Activities	Placement (if applicable)	Independent Guided Study	Total Number of Study Hours
36		164	200

MODULE AIM

The *aim* of the module is to provide an introduction to econometric methods for students who have some knowledge of statistical hypothesis testing and regression. The module follows a systematic approach to model building focusing on formulation, estimation, interpretation, evaluation and forecasting. These concepts will be reinforced through practical workshops, which also provide an opportunity for students to develop research skills that are essential for applied and empirical work

MODULE LEARNING OUTCOMES

By engaging successfully with this module a student will be able to

1. Demonstrate a clear understanding of how the regression model is used when analysing cross-section and time series data.
2. Produce and read regression output from an econometrics software package.
3. Appraise the adequacy of regression results and formulate appropriate diagnostic procedures.
4. Identify the presence of trend and seasonality through the use of graphs and statistical hypothesis tests.
5. Modelling time series using a number of approaches including moving averages, exponential smoothing and trend curves.
6. Use these models to obtain forecasts.

INDICATIVE CONTENT

PART I: Review & Introduction

- Review of some mathematical concepts and methods
- Review of main results in statistics
- Introduction to econometrics

PART II: Cross-sectional Econometrics

- **Simple Regression:** Least Squares, Residuals and R-squared, Examples of regression models, Assumptions of linear regression model, Individuals significance test [t statistics] and examples. Illustrations and examples of data.
- **Multiple regression:** Model, Interpretation of regression coefficient, significance of the estimates and joint significance [t and F tests]. Illustration.
- **Diagnostic tests:** Functional form and data transformation, Stability of the model, Heteroskedasticity, Serial Correlation, Multicollinearity, Endogenous regressors and instrumental variables. Illustration and examples.
- **Qualitative variables:** Probit and Logit models, Estimation and evaluation, Diagnostics, application and illustration.

PART III: Time Series and Forecasting

- **Models for time series:** stationary processes, autoregressive models, moving average models, autocorrelation and partial autocorrelations, estimation and model selection.
- **Other dynamic models:** The ADL and error correction models.
- **Trends and Seasonality:** Trend models, unit root tests and nonstationary time series, cointegration, seasonality, smoothing (linear exponential smoothing and seasonal exponential smoothing)
- **Forecasting:** Introduction to forecasting, measuring forecast accuracy, forecasting autoregressive models, applications and illustrations

LEARNING, TEACHING AND ASSESSMENT - STRATEGY AND METHODS

Students will be supported in their learning, to achieve the above outcomes, in the following ways:

- ❖ Lectures will be used to introduce the topics and methods of approaching particular areas/subjects.
- ❖ Seminars will be used to enhance student learning. There will be computer based seminars to allow students learning using an econometric software. Attendance, preparation and participation in these sessions are essential for the student to achieve the learning outcomes specified above. It is essential that students prepare in advance answers to any set exercises/questions, so that errors/misunderstandings can be spotted and corrected. Seminars can also be used as a session where students will have the chance to have verbal feedback and a chance for a regular formative self-assessment.
- ❖ Students will be required to engage in self-directed/self-motivated learning activities, such as supplementary reading of extra material, in order to enhance their understanding of the topics discussed in classes.
- ❖ Assessment will be used to test the ability of students to fulfil the expected learning outcomes.

To successfully complete the module, students will have to show that they are able to fulfil the learning outcomes outlined earlier. This ability will be assessed through one piece of coursework (in the form of a written empirical project) accounting for 40% of the final mark and a 2 hour exam at the end of the year, accounting for the remaining 60% of the module's final mark.

ASSESSMENT TASK INFORMATION

Task No.*	Short Description of Task	SI Code EX/CW/PR	Task Weighting %	Word Count or Exam Duration**	In-module retrieval available
1	Exam	EX	60	2 hours	N
2	Coursework (Empirical Project)	CW	40	<i>Words:</i> 2000-2500 <i>Deadline:</i> Before Easter break	Y <i>Deadline</i> Two weeks after the handing back the feedback

FEEDBACK

Students will receive feedback on their performance in the following ways

- Students will be receiving formative feedback during seminar sessions
- Students will be receiving summative feedback within 3 weeks of the phase test

LEARNING RESOURCES FOR THIS MODULE (INCLUDING READING LISTS)

Gujarati D.N. (2003) *Basic Econometrics*, 4th ed., McGraw Hill.

Heij, C., de Boer, P., Franses, P. H., Kloek, T. Van Dijk, H. K. (2004). *Econometric Methods with Application in Business and Economics*. Oxford University Press.

SECTION 2 MODULE INFORMATION FOR STAFF ONLY

MODULE DELIVERY AND ASSESSMENT MANAGEMENT INFORMATION

MODULE STATUS - INDICATE IF ANY CHANGES BEING MADE

NEW MODULE	Y
EXISTING MODULE - NO CHANGE	N
Title Change	N
Level Change	N
Credit Change	N
Assessment Pattern Change	N
Change to Delivery Pattern	N
Date the changes (or new module) will be implemented	09/2013

MODULE DELIVERY PATTERN - Give details of the start and end dates for each module. If the course has more than one intake, for example, September and January, please give details of the module start and end dates for each intake.

	Module Begins	Module Ends
Course Intake 1	09/2013	05/2014
Course Intake 2	DD/MM/YYYY	DD/MM/YYYY
Course Intake 3	DD/MM/YYYY	DD/MM/YYYY

Is timetabled contact time required for this module?	Y
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Are any staff teaching on this module non-SHU employees?	N
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If yes, please give details of the employer institution(s) below

What proportion of the module is taught by these non-SHU staff, expressed as a percentage?	
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MODULE ASSESSMENT INFORMATION

Indicate how the module will be marked	
*Overall PERCENTAGE Mark of 40%	Y
*Overall PASS / FAIL Grade	N

*Choose one only – module cannot include both percentage mark and pass/fail graded tasks

SUB-TASKS

Will any sub-tasks (activities) be used as part of the assessment strategy for this module?	N
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If sub-tasks / activities are to be used this must be approved within the Faculty prior to approval. Sub-task / activity marks will be recorded locally and extenuating circumstances, extensions, referrals and deferrals will not apply to sub-tasks / activities.

FINAL TASK

According to the Assessment Information shown in the Module Descriptor, which task will be the LAST TASK to be taken or handed-in? (Give task number as shown in the Assessment Information Grid in Section 1 of the Descriptor)	Task No. 1
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NON-STANDARD ASSESSMENT PATTERNS

MARK 'X' IN BOX IF MODULE ASSESSMENT PATTERN IS NON STANDARD, eg MODEL B, ALL TASKS MUST BE PASSED AT 40%. NB: Non-standard assessment patterns are subject to faculty agreement and approval by Registry Services - see guidance. notes.	
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