Subject Description Form

Subject Code	AMA4381
Subject Title	Econometrics
Credit Value	3
Level	4
Pre-requisite	Applied Linear Models for Finance Analytics (AMA2602) or Applied Linear Models (AMA3602) or Statistical Modeling for Discovery (AMA4001/AMA4601) or equivalent
Exclusion	Econometrics (AMA481)
Objectives	This subject is to apply the techniques of statistics, in particular that of regression methods, to formulate, estimate and analyze economic relationships.
Intended Learning Outcomes	Upon satisfactory completion of the subject, students should be able to: a. recognize economic relations and econometric models; b. formulate econometric models and identify the data relevant to the models; c. use statistical packages to estimate econometric models; d. apply econometric techniques in the estimation and analysis of econometric models and to evaluate the pros and cons of alternative models; e. deal with nonstandard situations encountered in model analysis; f. interpret analysis results and make recommendations with valid justifications for actions; g. present analysis results of econometric models in a well-structured manner. h. build up on team spirit, presentation and technical writing skills; i. solve real-world problems using econometric techniques; j. communicate effectively in a well-structured manner and build up an open-minded attitude.
Subject Synopsis/ Indicative Syllabus	*Review of single equation and multiple regressions (13 hours)* Economic relationships and econometric models, nature and quality of economic data, model specification, production, consumption, and investment functions, multiplier effects, dummy variables and seasonality. *Problems arising from use of least squares (9 hours)* Heteroscedasticity, serially correlated errors, weighted least squares, generalized least squares, multicollinearity. *Econometric Modelling (11 hours)* Instrumental variable estimation, errors in variables, dynamic and distributed lag models, simultaneous equations models. *Applications (6 hours)*

	Macroeconomic models, production function, supply and demand analysis, financial models.
Teaching/Learning Methodology	The subject will be delivered mainly through lectures and tutorials. The lectures will be conducted to introduce the econometrics concepts of the topics in the syllabus, which are then reinforced by learning activities involving demonstration, tutorial exercise and assignments.

Assessment Methods in Alignment with Intended Learning Outcomes

Specific assessment methods	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)									
		a	b	c	d	e	f	g	h	i	j
1. Assignments	20%	✓	✓	✓				✓	✓		✓
2. Tests	20%		✓	✓	✓	✓					
3. Examination	60%			✓	✓	✓	✓			✓	
Total	100 %										

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:
The subject focuses on knowledge, skill and understanding of **Econometrics**, thus, **Exam-based assessment** is the most appropriate assessment method, including 20% test and 60% examination. Moreover, 20% worth of assignments are included as a component of continuous assessment so as to keep the students in progress.
Continuous Assessment comprises of assignments and tests. A written examination is held at the end of the semester.

Student Study Effort Expected		
	Class contact:	
	▪ Lecture	26 Hrs.
	▪ Tutorial	13 Hrs.
	Other student study effort:	
	▪ Assignment	40 Hrs.
	▪ Self-study	26 Hrs.
	Total student study effort	105 Hrs.

Reading List and References

Textbooks:

Gujarati, D.N.	Basic Econometrics 5th edition	McGraw Hill 2008
Maddala G.S.	Introduction to Econometrics 3rd edition	Wiley 2001

References:

Wooldridge, J.M.	Introductory Econometrics: A Modern Approach 5th edition	South-Western College Publication 2012

	Studenmund, A.H.	Using Econometrics: A Practical Guide, International Edition 6th edition	Prentice Hall 2010
	Pindyck, R.S. & Rubinfeld, D.L.	Econometric Models and Economic Forecasts 4th edition	McGraw-Hill 1998
	Stock, J.H. & Watson, M.W.	Introduction to Econometrics 3rd edition	Addison Wesley 2010