



**DEPARTMENT OF ECONOMETRICS
UNIVERSITY OF MADRAS**

M.PHIL. APPLIED ECONOMICS

SYLLABUS FOR 2017-18

***DEPARTMENT OF ECONOMETRICS*
M.PHIL APPLIED ECONOMICS 2017-18**

The Department of Econometrics was established in July 1980. Since its inception, the Department has been specialising on teaching and research in quantitative economics, emphasising theoretical, methodological and conceptual aspects of economic theory along with econometric applications to socially relevant economic issues and policies. Quantitative analysis of economic data with computer applications has been the strength of the Department.

Recognising the growing importance of quantitative economics in teaching and policy decisions, the M.A Econometrics programme in 1978 along with the Ph.D. programme with a focus on applied econometrics. With the increasing demand for econometric analysis, M.A. Financial Economics and M.Phil. in Applied Economics are also offered by the Department. The Department teaching focuses on training students in computer applications and econometric softwares to impart quality learning in quantitative analysis.

The Department at present has 4 well trained faculty with specialisations in a wide range of topics.

Dr. T. Lakshmanasamy, M.A., Ph.D.

Professor and Head

Dr. D. Sathiyavan, M.A., M.Phil., Ph.D.

Associate Professor

Dr. P. Mahendra Varman, M.S., M.Phil., Ph.D.

Assistant Professor

Dr. R. Mariappan, M.A., M.B.A., M.Phil., Ph.D.

Assistant Professor

The Department has an Air-conditioned Computer and Econometrics Lab with accessories and is equipped with licensed software such as Windows, Linux, MS Office and Econometric/Statistical software packages such as SPSS, STATA, LIMDEP, SHAZAM & Eviews.

M. PHIL. APPLIED ECONOMICS 2017-18

Semester	Subject	Title of the Course	C/E	Credits	Faculty
I	Eco C 131	Advanced Economic Theory & Applications	C	5	Faculty
	Eco C 132	Research Methodology	C	5	Faculty
	Eco E 131	Topics in Applied Economics and Econometrics	E	5	Faculty
II	Eco C 133	Dissertation	C	21	Guide and Supervisor

M. PHIL. APPLIED ECONOMICS 2017-18

Eco C 131	Advanced Economic Theory & Application	5	Faculty
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Unit 1: Microeconomics – consumer's choice involving risk – indirect utility function – recent developments in demand analysis (pragmatic approach – linear expenditure system) – production functions – Cobb-Douglas, CES, VES, and Translog production functions and their properties.

Unit 2: Macroeconomics – general equilibrium and IS-LM models – closed economy IS-LM model – open economy IS-LM model – balance of payments – disequilibrium in balance of payments – causes and kinds – automatic adjustment in BOP – adjustments by policy measures – expenditure changing and expenditure switching policies – monetary approach to BOP adjustment.

Unit 3: Public finance – fiscal policy and stabilization – multiplier models with investment fixed – multiplier models with investment variable – stabilisation in the open economy – further issues in fiscal policy – built-in flexibility – timing of fiscal effects – tax versus expenditure changes – economics of the public debt – growth of the federal debt – structure of the federal debt – public debt and fiscal solvency.

Unit 4: Monetary economics – post-Keynesian approach to demand for money – Patinkin and real balance effect – approaches of Baumol and Tobin – Friedman and modern quantity theory.

Unit 5: International Trade – partial equilibrium analysis of trade policy – protectionism – excess demand and supply analysis – tariffs in comparison with quantitative restrictions – trade policy versus non-trade policy – general equilibrium analysis of trade – small and large economies – offer curves and optimum tariff – tariffs and real rewards to factors of production – tariffs and real rewards to factors of production over time.

Books for Reference:

Laidler, D.E.W. (1977) Demand for Money: Theory and Evidence, Dum-Don Valley.
 Bo Sodersten and Geoffrey Reed (1994) International Economics, Macmillan.
 Richard A. Musgrave and Peggy B. Musgrave (2004) Public Finance in Theory and Practice, Tata McGraw-Hill, New Delhi.
 A.Koutsoyiannis (2008) Modern Microeconomics, Macmillan, New Delhi.

Eco C 132	Research Methodology	5	Faculty
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- Unit 1:** Introduction to research methodology – theory and facts – deductive and inductive theory – frequency distribution – graphs and histogram – measures of central tendency – measures of dispersion – correlation – moments – probability – random variables – discrete and continuous probability functions – distribution functions – mathematical expectation – Binomial, Poisson, Exponential, Normal, Chi-Square, t and F distributions – central limit theorem.
- Unit 2:** Tests of significance and general linear models – meaning and assumptions – least squares principle and estimator properties – Gauss Markov theorem – numerical examples.
- Unit 3:** Data analysis using MS Excel and SPSS – data structure – fundamentals of spreadsheets – cell operations – data sorting and filter – specific functions – frequencies – charts and chart options – statistical functions – univariate analysis – cross tabulations – multivariate techniques – regression – forecasting – chi-square test.
- Unit 4:** Introduction to Stata – basics – data editor – data transformation – data analysis – summary statistics – frequency tables and two-way cross tabulations – regression – dummy variables and interaction effects.
- Unit 5:** Econometric methods – distributed lag models – simultaneous equations – identification and estimation – qualitative variable models – Logit and Probit – panel data analysis – fixed effects and random effects models – time series econometrics – stationary and non-stationary – ARIMA models – Box-Jenkins method.

Books for Reference:

1. Viswanathan, P.K. (2003) Business Statistics, Pearson Education Pvt. Ltd.
2. Alexander M. Mood, Franklin A. Graybill and Duane C. Boes (1988) Introduction to the Theory of Statistics, McGraw-Hill Statistics Series.
3. Murray R. Spiegel (1980) Theory and Problems of Probability and Statistics, McGraw-Hill Schaum's Outline Series.
4. Murray R. Spiegel, J. Schillar and R.A. Srinivasan (2000) Probability and Statistics, McGraw Hill Schaum's Outline Series.
5. Damodar N. Gujarati (2004) Basic Econometrics, Tata McGraw-Hill.
6. William H. Green W.H. (2003) Econometric Analysis, Pearsons Education.
7. User Manual for SPSS and STATA.

Eco E 131	Topics in Applied Economics and Econometrics	5	Faculty
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Syllabus prescribed by the research guide and supervisor.

Eco C 133	Dissertation	21	Faculty
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Dissertation under the guidance of research guide and supervisor.