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 5 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.A. Financial Economics 2017-18**

<table>
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<tr>
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</table>

Note: Soft skill courses are conducted by the University and students choose from the list of soft skills courses offered by the University.

**Course List & Syllabus**

**Eco C 201** Mathematical Methods | 4 | D. Sathiyanan


Unit 2: Set theory – convex and concave sets and functions – local and global maximum and minimum.


Books for Reference:

**Eco C 202** Statistical Methods | 4 | R.Mariappan


Unit 3: Special probability distributions – binomial, poisson, exponential, normal, chi square, t and F distributions – probability and distribution functions – properties – relations among binomial, poisson and normal distributions – central limit theorem.

Unit 4: Sampling theory – definitions of sampling with and without replacement – type-I and Type-II errors – level of significance – rules of hypotheses testing – one-tailed and two-tailed test – sampling distributions of means and variances.
Department of Econometrics


Unit 5: Estimation theory and testing of hypothesis – properties of estimates – confidence interval for population parameters and sample statistics – confidence interval for maximum likelihood estimates – special tests of significance for large and small samples – numerical problems.

Books for Reference:

Department of Econometrics

Eco C 204 | Indian Financial System | 4 | P.Mahendra Varman

Unit 4: Derivatives – commodities types – financial types – commodity exchanges.

Books for Reference:

Eco E 201 | Indian Economic Development | 3 | R.Mariappan

Unit 3: Indian economic planning – plan models – five year plans – monetary and fiscal policies – public debt and deficit financing – trade and investment policies – industrial and labour regulations.
Unit 4: Foreign trade – importance, composition, foreign trade policy, direction, balance of payments and economic reforms – trade, export and import policies – trends in imports and exports – prices and money supply – causes and policies.
Unit 5: India and international relations – WTO, bilateral relations, environment and climate change issues, trade issues – globalisation issues and global standards.

Books for Reference:
1. R.Dutt and K.P.M.Sundaram: Indian Economy, S. Chand & Company.

Course List & Syllabus

Eco C 203 | Micro Economics – I | 4 | T.Lakshmanasamy


Books for Reference:

Course List & Syllabus

Eco E 201 | Indian Economic Development | 3 | R.Mariappan

Unit 3: Indian economic planning – plan models – five year plans – monetary and fiscal policies – public debt and deficit financing – trade and investment policies – industrial and labour regulations.
Unit 4: Foreign trade – importance, composition, foreign trade policy, direction, balance of payments and economic reforms – trade, export and import policies – trends in imports and exports – prices and money supply – causes and policies.
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Books for Reference:
1. R.Dutt and K.P.M.Sundaram: Indian Economy, S. Chand & Company.

Course List & Syllabus

| Eco E 202 | Monetary Economics | 3 | Faculty |


Unit 5: Monetary policy with fixed exchange rate – floating exchange rate – policy coordination – capital mobility and Tobin tax.

Books for Reference:

| Eco E 203 | Data Analysis using Computers | 4 | P.Mahendra Varman |


Books for Reference:
3. STATA Version 8.0; Base Reference Manuals, Volume 1-4.

| UOM S*** | Soft Skill | 2 | University |

| Eco C 205 | Theory of Financial Economics | 4 | Faculty |

Unit 1: Decision under uncertainty – state preference approach – expected utility approach – behavioral alternatives to the EUA.


Unit 5: Inter-temporal choice and the equity premium puzzle – consumption and investment in a two period with certainty – lifetime portfolio selection – inter-temporal capital asset pricing models.

Books for Reference:

| Eco C 206 | Micro Economics – II | 4 | T.Lakshmanasamy |


Books for Reference:

Eco C 207 | Macro Economics | 4 | P.Mahendra Varman

Unit 1: Basic concepts in macroeconomics – stocks and flows – static and dynamic equilibrium – national income concepts – circular flow of income – different forms of national income accounting.


Books for Reference:

**Unit 4:**

Books for Reference:

**Unit 3:**

**Unit 2:**

**Unit 1:**
Johnston: Econometrics.  
Eco E 205 Development and Planning 3 R. Mariappan

**Unit 1:**

**Unit 2:**

**Unit 3:**

**Unit 4:**

**Unit 5:**

Books for Reference:

**Unit 5:**

Books for Reference:
Websites and reports of respective ministries and organizations, like Directorate of Census Operations, CSO, NSSO of GOI, SEBI, RBI.

Reports of Statistics Departments in State Governments.

World organisations.

**Course List & Syllabus**

**Unit 5:**
6. Internship work

**Unit 4:**

**Unit 2:**

**Unit 3:**

**Unit 4:**

**Unit 5:**

Books for Reference:

**Course List & Syllabus**
**Department of Econometrics**

**Eco C 210 | Corporate Finance | 4 | Faculty**

**Unit 1:** Long term financing – common stock – long term debt – preferred stock – capital structure – maximising firm value vs maximising stockholder interests – financial vs maximising stockholder interests – financial leverage and firm value – return to equity holder and leverage – taxes.

**Unit 2:** Limits to the use of debt – cost of financial distress – direct costs – indirect costs – reduce cost of debt – tax effects and financial distress costs – agency cost of equity – pecking – order theory – growth and debt – equity ratio.

**Unit 3:** Valuation and capital budgeting for leveraged firm – flow to equity approach – weighted average cost of capital – capital budgeting when discount rate must be estimated – beta and leverage.

**Unit 4:** Dividend policy – types of dividend – taxes, issuance cost and dividend – repurchase of stock – real world factors for dividend policy.


**Books for Reference:**

**Eco C 211 | Public Finance | 4 | T.Lakshmanasamy**

**Unit 1:** Role of government – public goods and externalities – private property and law – imperfect market and regulation – welfare state and redistribution – role of state in economic growth – public finance and public sector economics.


**Unit 5:** Fiscal federalism in India – theories of fiscal federalism – vertical and horizontal fiscal imbalances in India – Inter-governmental financial transfers in India – political economy of Indian fiscal federalism.

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**Eco C 212 | Banking and Insurance | 4 | Faculty**


**Unit 2:** Priority sector lending – other lending – base rate and prime lending rate – deposit mobilisation – composition of deposits and lending – consortium of banks – NPA – issues and remedies.

**Unit 3:** Narasimhan committee of banking reforms – changes in banking regulation – deregulation of interest rates – capital adequacy and BASEL norms – governance issues.

**Unit 4:** Insurance – basic issues – definition of insurance – risk pooling and risk transfer – economic and legal perspectives – social vs private insurance – life vs non-life insurance – classification of life, health and general insurance policies.


**Books for Reference:**

**Eco E 207 | Econometric Applications to Finance | 3 | D.Sathyavan**

**Unit 1:** Classical time series analysis – utility of time series analysis – components of time series data – measurement of trend, seasonality and cycles – moving averages and smoothing techniques to time series analysis – classical time Series decomposition models – additive and multiplicative models – forecasting using smoothing techniques and time series decomposition methods – applications in finance.
**Course List & Syllabus**

**Department of Econometrics**


**Unit 3:** Univariate time series analysis and forecasting – linear time series analysis – autocorrelation function and partial auto-correlation function – auto-regressive (AR) models, moving average (MA) models, Box-Jenkins (BJ) ARMA and ARIMA models – identification – estimation and forecasting with ARIMA models – economic applications.


**Books for Reference:***

**Eco E 209 | Advances in Economic Theory | 3 | T. Lakshmanasamy**

**Unit 1:** Consumer theory – non-market production – Lancaster’s characteristics approach – Becker’s home production model – Lewis’s time allocation model – Hirschleiffer’s analysis of Uncertainty – Akerlof’s information asymmetry and quality demand model.


**Unit 3:** Public goods – Buchanan’s public choice approach – Stiglitz private use of public interest – club goods – externalities and social returns – spillovers and increasing returns.

**Unit 4:** Open economy macro models – disequilibrium analysis – environment and climate change – global impacts.

**Unit 5:** Game theory – Nash equilibrium – sequential equilibrium – signaling and sorting.

**Books for Reference:**

**UOM S*** | Soft Skill | 2 | University**

**Eco C 213 | International Finance | 4 | Faculty**

**Unit 1:** Exchange rate determination – purchasing power parity – Balassa and Samuelson model – monetary models of exchange rate determination – flexible price monetary model – Dornbusch sticky price model – Frankel real interest rate differential model.

**Unit 2:** Portfolio balance model – risk premium – derivation of asset demand funds – equilibrium – forex operation effect – fixed, floating & managed exchange rates.
Department of Econometrics

Unit 3: International monetary system – Brettonwoods system – post-Brettonwoods era – Euro currency and euro bounds market.

Books for Reference:

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Unit 2: Options and their payoffs – option markets – risk neutral valuation – binomial option pricing model.
Unit 3: Black-Scholes option pricing model – uses of options – simple option strategies – the Greeks of the Black-Scholes model.
Unit 4: Warrants and convertible bonds – interest rate and currency swaps – caps floors and swaption.
Unit 5: Derivatives accounting – corporate risk management – risk management in financial institutions.

Books for Reference:

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Unit 1: Theories of international trade – Adam Smith – David Ricardo – Heckscher Ohlin – factor accumulation – Rybczynski theorem – technical progress and international trade.
Unit 4: BOP – market for foreign exchange – foreign trade and national income capital movement.
Unit 5: Exchange rate – determination of floating exchange rate – macro economics policy and exchange rate – exchange rate and policy coordination.

Books for Reference:


Course List & Syllabus
Department of Econometrics


Books for Reference:
1. R. Dutt and K.P.M. Sundharm: Indian Economy, S. Chand & Co.

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Unit 5: Concentration and market power – structure, conduct and performance theory – persistence of long run profits.

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