



**ST. THOMAS' COLLEGE**  
**(AUTONOMOUS)**  
**THRISSUR**

*Affiliated*  
to  
**UNIVERSITY OF CALICUT**

**SYLLABUS**  
**FOR**  
**DEGREE**  
**OF**

**MASTER OF ARTS (M.A.)**  
**IN**  
**ECONOMICS**

**(2020 onwards)**

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## LIST OF PG BOARD MEMBERS OF ECONOMICS

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**Program Specific Outcome**

PSO1: To examine the trends on Indian Economy

PSO2: To understand the trends in Kerala Economy

PSO3: To examine the possibility of linkage between theory and quantitative techniques.

PSO4: To understand the relevance of economic theories in the present domestic economy.

**ELIGIBILITY CRITERIA WITHOUT ENTRANCE****UNDER MARK SYSTEM**

BA degree of this university with Economics/Foreign Trade/Development Economics (Main) or equivalent degree with at least 45% marks for Part III (excluding subsidiaries) Or BSc degree of this University with Statistics/Mathematics (Main) or equivalent degree with at least 70% marks for Part III (excluding subsidiaries). OBC/OEC candidates are eligible to relaxation up to 5%. SC/ST candidates need only to get a pass.

**UNDER GRADE SYSTEM**

BA degree of this university with Economics/Foreign Trade/Development Economics (Main) or equivalent degree with Overall CGPA, at least equivalent to 50% or BSc degree of this University with Statistics/Mathematics (Main) or equivalent degree with equivalent grade to 70%. OB/OEC candidates are eligible for relaxation up to 5%. SC/ST candidates need only to get a pass.

**LANGUAGE OF EXAMINATION**

The language of writing the examination shall be English only.

**MA ECONOMICS (CBCSS) 2020-21 ADMISSION-SCHEME OF THE PROGRAMME**

Semester	Name of the Course	Credit	Hours/ Week	Total Weightage	
				External	Internal
<b>I</b>	ECO1 C01 Microeconomics: Theory and Applications I	5	7	30	5
	ECO1 C02 Macroeconomics: Theories and Policies I	5	6	30	5
	ECO1 C03 Indian Economy: Problems and Policies	5	6	30	5
	ECO1 C04 Quantitative Methods for Economic Analysis I	4	6	30	5
	ECO1 A01-Ability Enhancement Course	4*			
<b>II</b>	ECO2 C05 Microeconomics: Theory and Applications II	5	6	30	5
	ECO2 C06 Macroeconomics: Theories and Policies II	5	6	30	5
	ECO2 C07 Public Finance: Theory and Practice	5	7	30	5
	ECO2 C08 Quantitative Methods for Economic Analysis II	5	6	30	5
	ECO2 A02-Professional Competency Course	4*			
<b>III</b>	ECO3 C09 International Trade	5	6	30	5
	ECO3 C10 Growth and Development	5	6	30	5
	ECO3 C11 Basic Econometrics	5	7	30	5
	Elective I	4	6	30	5
<b>IV</b>	ECO4 C12 International Finance	3	6	30	5
	ECO3 C13 Financial Markets	3	6	30	5
	Elective II	4	6	30	5
	Elective III	4	6	30	5
	ECO4 P14 Project	4	1	4	1
	ECO4 V15 Comprehensive Viva Voce	4			
	<b>Total Credits</b>	<b>80</b>			

**@ 1 elective course in Semester 3 and 2 elective courses in semester 4 are to be selected from the appended lists of elective courses.**

**\*The credits will not be counted for evaluating the overall SGPA & CGPA**

## LIST OF CORE COURSES

1	Course I	ECO1 C01- Microeconomics: Theory and Applications I
2	Course II	ECO1 C02- Macroeconomics: Theories and Policies I
3	Course III	ECO1 C03- Indian Economy: Problems and Policies
4	Course IV	ECO1 C04- Quantitative Methods for Economic Analysis-I
5	Course V	ECO2 C05- Microeconomics: Theory and Applications II
6	Course VI	ECO2 C06- Macroeconomics: Theories and Policies II
7	Course VII	ECO2 C07- Public Finance: Theory and Practice
8	Course VIII	ECO2 C08- Quantitative Methods for Economic Analysis-II
9	Course IX	ECO3 C09- International Trade
10	Course X	ECO3 C10- Growth and Development
11	Course XI	ECO3 C11- Basic Econometrics
12	Course XII	ECO4 C12- International Finance
13	Course XIII	ECO4 C13- Financial Markets
14	Course XIV	ECO4 P14- Project
15	Course XV	ECO4 V15- Comprehensive Viva Voce

## LIST OF ELECTIVE COURSES

### SEMESTER III

1	Course I	ECO3 E01- Banking: Theory and Practice
2	Course II	ECO3 E02- Industrial Economics
3	Course III	ECO3 E03- Labour Economics
4	Course IV	ECO3 E04- Regional Economics

### SEMESTER IV

5	Course V	ECO4 E01 - Advanced Econometrics
6	Course VI	ECO4 E02 - Agricultural Economics
7	Course VII	ECO4 E03 - Business Economics
8	Course VIII	ECO4 E04 - Demography
9	Course IX	ECO4 E05 - Environmental Economics
10	Course X	ECO4 E06 - Gender Economics
11	Course XI	ECO4 E07 - Health Economics
12	Course XII	ECO4 E08 - Mathematical Economics
13	Course XIII	ECO4 E09 - Political Economy of Development
14	Course XIV	ECO4 E10- Research Methodology & Computer Applications

## **AUDIT COURSES**

The students will have to undergo two audit courses with 4 credits each. The credits will not be counted for evaluating the overall SGPA & CGPA. Audit courses are not part of the normal workload.

### **GENERAL GUIDELINES**

#### **Semester I: Ability Enhancement Course (AEC) – ECO1 A01 -4 Credits**

The student can attempt any one of the following for securing 4 credits.

1. An internship in an academic/research institution or in any related organization suitable to the topic under study, under a supervisor/teacher/official.
2. One seminar presentation of 15 minutes duration, on a relevant topic.
3. One case study analysis approved by the Department Council.
4. Community Linkage Programme in a nearby Local Government.
5. Review of one recently published book related to Economics.

#### **Semester II: Professional Competency Course (PCC) ECO2 A02 4 Credits**

The student should acquire skill in at least one of the software such as SPSS/R/Econometrics/Python/Stata or any software relevant to Economics and use the software to do any one of the following with the help of a supervising teacher.

1. Calculation of descriptive measures in statistics.
2. Calculation of correlation and regression.
3. Fitting of normal curve and parabola.
4. Perform ANOVA.
5. Multiple regression models.
6. Calculation of growth rate, elasticity etc.
7. Perform  $t$ , chi square and  $F$  test.
8. Perform any non-parametric test.

### **Study Tour**

A study tour can be conducted as part of the paper titled as Financial Market (ECO 3C 13). The tour report should be submitted to the head of the department soon after the tour.

# **M A ECONOMICS PROJECT FORMAT**

## **STRUCTURE OF THE PROJECT**

### **Cover Page and FrontPage**

- a. Title of the project
- b. Degree for which project is submitted.
- c. Name of the Candidate & Roll Number
- d. Name of the College
- e. Month and year the project is presented

### **Contents**

- a. Certificate of the supervising teacher.
- b. Certificate of the head of the department.
- c. Declaration by the student.
- d. Acknowledgement.
- e. Table of Contents
- f. List of Tables
- g. List of Figures
- h. Introductory Chapter
- i. Analysis Chapters
- j. Concluding Chapter
- k. Bibliography
- m. Appendix

### **CONTENTS OF THE INTRODUCTORY CHAPTER**

1. Introduction
2. Statement of objectives
3. Hypotheses (optional)
4. Methodology
  - a. Data sources (primary/secondary)
  - b. Tools of analysis (statistical & mathematical)
5. Scope of the study (sample size & period of study)
6. Significance of the study
7. Limitations of the study
8. Conceptual framework-Optional (specification of terms and concepts)
10. Review of literature (references are to be given in footnotes)
11. Chapter outlines.

### **STYLE OF PRESENTATION**

1. Report Length: 50 to 70 pages excluding Appendix and Certificates
2. Alignment: Justify
3. Font: Times New Roman
4. Font size: 12
5. Line spacing: 1.5



### SEMESTER I

<b>Core Course</b>	<b>Title of Course</b>	<b>Hours/Week</b>	<b>Credit</b>
I	Microeconomics: Theory and Applications I	7	5
II	Macroeconomics: Theories and Policies I	6	5
III	Indian Economy: Problems and Policies	6	5
IV	Quantitative Methods for Economic Analysis I	6	4
	Ability Enhancement Course	0	4

**Core Course-I**  
**MA ECONOMICS (CBCSS)**  
**ISEMESTER**

**ECO1 C01 - MICROECONOMICS: THEORY AND APPLICATIONS-I**  
**(Credit 5)**

**Course outcome:** The paper helps to understand the consumer behavior under the conditions of risk of risk and uncertainty. It also creates awareness on recent developments in demand and production theory. An analytical study is framed on how the firms take decisions in an oligopolistic market structure.

**Module I Consumer Behaviour under Uncertainty and Risk**

Choice under uncertainty- Representing uncertainty by Probability distributions- Expected Value and Variability- Maximizing expected utility- Fair gambles and expected utility hypothesis- St. Petersburg paradox-Neumann-Morgenstern utility index- Friedman Savage hypothesis-Markowitz hypothesis- Utility functions and attitudes towards risk- risk neutrality, risk aversion, risk preference, certainty equivalent, demand for risky assets- reducing risks- diversification, insurance, flexibility, information- The state preference approach to choice under uncertainty.

**Module II Market Demand for Commodities**

Deriving market demand- Network externalities- Bandwagon effect, Snob effect and Veblen effect- Empirical estimation of demand- Linear demand curve, Constant elasticity demand function- Dynamic versions of demand functions-Nerlove, Houthakker and Taylor-Linear expenditure system- Characteristic approach to demand function.

**Module III Theory of Production and Costs**

Short run and long run production function- returns to scale- elasticity of substitution- Homogeneous production function- Linear homogeneous production function- Fixed proportion production function- Cobb Douglas production function and CES production function- Technological progress and production function- Cost function- Cost minimising input choices- properties of cost functions- Economies of scope- The Learning curve – Estimating and Predicting cost- Short run and long run distinction.

**Module IV Theory of Imperfect Markets**

Oligopoly- Characteristics- Collusive versus non-collusive oligopoly- Non-collusive models- Cournot model- Bertrand model- Chamberlin's model-Kinked demand curve model of Sweezy- Stackelberg's model- Welfare properties of duopolistic markets- Collusive models- Cartels and Price leadership-Limit pricing models.

**Module V Theory of Games**

Basic concepts-Cooperative versus non-cooperative game- Zero sum versus non-zero sum game- Prisoner's dilemma- Dominant strategies- Nash equilibrium- Prisoner's dilemma- Pure strategies- Mixed strategies- repeated games- Sequential games- Threats, commitments and credibility.

## References

1. Walter Nicholson and Christopher Snyder (2017): *Microeconomic Theory- Basic Concepts and Extensions*, 12<sup>th</sup>edition, Cengage Learning India Private Limited.
2. Andrew Schotter (2009): *Microeconomics: A Modern Approach- 1<sup>st</sup>edition*, South Western Cengage Learning.
3. Michael E Wetzstein(2013): *Microeconomic Theory- Concepts and Connections*, 2<sup>nd</sup>edition, Routledge.
4. Robert S Pindyck and Daniel L Rubinfeld (2017): *Microeconomics- 8<sup>th</sup>edition*, Pearson.
5. Thomas J Nechyba (2010): *Microeconomics: An Intuitive Approach with Calculus- 1<sup>st</sup>edition*, South Western Cengage Learning.
6. Andreu Mas-Colell, Michael D Whinston and Jerry R Greene (1995): *Microeconomic Theory- 1<sup>st</sup>edition*, Oxford University Press.
7. Geoffrey A Jehle (2010): *Advanced Microeconomic Theory- 3<sup>rd</sup>edition*, Prentice Hall
8. Hall R Varian (2014): *Intermediate Microeconomics- A Modern Approach*, WW Norton and Co.
9. Jeffrey M Perloff (2019): *Microeconomics -7<sup>th</sup>edition*, Pearson
10. Hugh Gravelle and Ray Rees (2007): *Microeconomics- 3<sup>rd</sup>edition*, Pearson Education
11. Edgar K Browning and Mark Zupan (2011): *Microeconomics: Theory and Applications- 3<sup>rd</sup>edition*.
12. Dominick Salvatore (2009): *Microeconomics – 5<sup>th</sup>edition*, Oxford University Press.
13. A Koutsoyiannis (1979): *Modern Microeconomics- 2<sup>nd</sup>edition*, Macmillan.
14. Robert Y Awh(1976): *Microeconomics: Theory and Applications- John Wiley & Sons*
15. Watson and Getz (2004): *Price Theory and its Uses- 5<sup>th</sup>edition*, AITBS Publishers and Distributors.
16. James H Henderson and Richard E Quandt (1980): *Microeconomic Theory: A Mathematical Approach- 8<sup>th</sup>edition*, McGraw-Hill
17. G S Madalla and Ellen Miller (1989): *Microeconomics: Theory and Applications- 1<sup>st</sup>Edition*, Tata McGraw-Hill.

**Core Course-II**  
**MA ECONOMICS (CBCSS)**  
**I SEMESTER**  
**ECO1 C02 - MACROECONOMICS: THEORIES AND POLICIES I**  
**(Credit 5)**

**Course outcome:** The paper tries to understand the various consumption hypotheses. The theoretical underpinnings of economic fluctuations are distinguished in this section. A comparative study is discussed on the effectiveness of fiscal and monetary policy in a domestic economy.

**Module I: Aggregate Demand**

**Consumption Function:** Keynes' psychological law- Absolute income hypothesis- Kuznet's consumption puzzle - Relative income hypothesis - Fisher's inter-temporal choice model – Permanent income hypothesis- Life cycle hypothesis.

**Investment Function** - MEC and MEI approaches -user cost and Neo-classical theory of investment- Tobin's q-ratio- Accelerator theory of investment (simple and flexible acceleration models).

**Demand for Money-** Classical approach to demand for money- Quantity theory approaches, Fisher's equation, Cambridge quantity theory, Keynes's liquidity preference approach - Post-Keynesian approaches to demand for money : Friedman's restatement of Quantity theory of money, Approaches of Baumol and Tobin.

**Supply of Money** - Measures of money supply (RBI definition) - The H theory of money supply- Money multiplier process-Behavioural and endogenous money supply models- Fisher effect.

**Module II: Theories of Inflation and Unemployment**

Keynesian and monetarist approach to inflation- Structuralist theory of inflation- Inflation unemployment trade off-Phillips Curve- Short run and long run Phillips curve -The natural rate of unemployment hypothesis- Modified Phillips curve- Adaptive expectation hypothesis- Augmented Phillips curve- NAIRU- Okun's Law-The new microeconomics of the labour market and search theory-Rational expectations.

**Module III: Theories of Business Cycles**

Business cycles- Monetary theory of Hawtrey- Over investment theory of Hayek- Innovation theory of Schumpeter-Models of Samuelson, Hicks and Kaldor-Keynesian theory of business cycle-The real business cycle theory- Political business cycle theory

**Module IV: Neo-Classical and Keynesian Synthesis**

The IS-LM model-equilibrium in goods and money market - ISLM model with government sector; Relative effectiveness of monetary and fiscal policies; Extension of IS-LM models with labour market and flexible prices. The three sector macro model with Keynesian and Neoclassical versions.

**Module V: Macroeconomic Policy**

Macroeconomic policies- Objectives of macroeconomic policies- Targetvariable and instrument variable-Monetary policy-Instruments- The issue of central bank autonomy-Rules versus discretion- The Taylor rule-Time inconsistency of policy- Fiscal policy- Instruments- Policy lags - Inside and outside lags- Fiscal policy and budget deficit- Crowding out effect and government budget- The Ricardian Equivalence- Income policy- Stabilization policy.

## References

1. Gregory Mankiw (2008): Macroeconomics- Worth Publishers NY, 6<sup>th</sup>ed.
2. Richard T Froyen (2005): Macroeconomics: Theories and Policies- Pearson (LPE), Seventhed.
3. Rosalind Levacic and Alexander Rebman (1982): Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies- 2<sup>nd</sup> ed. Macmillan.
4. Eric Pentacost: Macroeconomics- An Open Economy Approach- Macmillan.
5. Rudiger Dornbusch, Stanley Fisher and Richard Startz (2004): Macroeconomics- Tata McGraw Hill, 9<sup>th</sup>ed.
6. Errol D'Souza (2008): Macroeconomics- Pearson Education.
7. P.N Junankar (1972): Investment: Theories and Evidence- Macmillan.
8. Fred R Glahe (1985): Macroeconomics: Theory and Policy- Harcourt Publishers, New Delhi.
9. Veneries and Sebold (1977): Macroeconomics: Models and Policies- John Wiley & Sons.
10. Gurley J and Shaw E S (1960): Money in a Theory of Finance- Washington: Brookings Institution.
11. Samuelson and Nordhaus (1998): Macroeconomics- 16<sup>th</sup> ed. Irwin McGraw Hill.
12. Robert J Gordon: Macroeconomics- Eastern Economy Edition.
13. Edward Shapiro: Macroeconomics- Galgotia Publications, New Delhi.
14. Mervyn K. Lewis and Paul D Mizen (2000): Monetary Economics- Oxford University Press.
15. Jagdish Handa (2000): Monetary Economics- Routledge.

**Core Course-III**  
**MA ECONOMICS**  
**(CBCSS) I SEMESTER**  
**ECO1 C03 - INDIAN ECONOMY: PROBLEMS AND POLICIES**  
**(Credit 5)**

**Course outcome:** The main aim of the paper to examine the developments in the Indian economy. It also examines the major trends in Kerala Economy.

**Module I: Growth, Structural Changes and Challenges of the Indian Economy**

Economic growth in India- CSO and national income related aggregates- Contribution of different sectors to GVA, GDP and Employment- Trends in savings and investment since reforms- Migration, diaspora and remittance - Regional disparity in growth and development- Analysis of poverty, unemployment and inequality in India

**Module II: Review of Economic Development**

Assessment of Indian agriculture sector and recent initiatives by the government for its growth-Inter regional dimensions of industrial growth in India- Make in India initiative- Service sector: growth rate, share in exports and imports, software exports- Infrastructure at cross roads -Prices: Headline inflation-Inflation based on WPI and CPI combined, food inflation, core inflation- Monetary management in India prior to1990 and position after 1990s-New initiatives of the government towards black money-Inclusive policies of the government-A global deal on climate change: possible role for India.

**Module III: Economic Planning in India**

Planning and economic development-Objectives of planning-Techniques of planning-Achievements of planning- Bottom up and Step down approaches in planning- Evaluation of Five Year Plans-NITI Aayog and its Vision Documents- Welfare programmes announced in the last two Union Budgets.

**Module IV: Economic Reforms Since 1991**

Background of economic reforms- Washington Consensus- Industrial policy reforms- Trade policy reforms- Fiscal policy reforms- Financial sector reforms- Foreign investment policy reforms- Second generation economic reforms-An appraisal of India's economic reforms- Post reform Infrastructure Investment Models-PPP- Cooperative federalism with special reference toGST.

**Module IV: Kerala Economy**

Economic liberalization and economic growth in Kerala- Kerala model of development- Agricultural performance-Industrial backwardness- Health and education - Migration of casual workers to Kerala- Decentralization-Achievements of decentralization-Poverty and unemployment in Kerala - State finances of Kerala- Causes of acute fiscal crisis of Kerala.

## References

1. Vijay Joshi and IMD Little: India: Macroeconomics and Political Economy: 1964-1991- Oxford University Press, New Delhi 1994.
2. Uma Kapila (ed): Indian Economy Since Independence- Academic Foundation, New Delhi 2004.
3. Vijay Joshi and I. M.D Little: India's Economic Reforms: 1991- 2001- Oxford University Press, New Delhi,1996.
4. VM Dandekar and NilakantRath: Poverty in India- Indian School of Political Economy, Pune, 1971.
5. JagdishBhagwati: India in Transition- Oxford University Press, Delhi,1994.
6. Dr. S Murthy: Structural Reforms of Indian Economy- Atlantic Publishers,1995.
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10. KR Gupta (Ed): Liberalization and Globalization of Indian Economy- Atlantic Publishers, New Delhi 1995.
11. Deepak Lal: India in the World Economy- Oxford University Press, 1999.
12. Datt. R. (2001): Second Generation Economic Reforms in India- Deep and Deep Publications, NewDelhi.
13. Mahendra K Premi (2009): India's Changing Population Profile- National Book Trust, NewDelhi.
14. B A Prakash (Ed): Indian Economy Since 1991-PearsonEducation.
15. Shanker Acharya and Rakesh Mohan (Eds) (2011): India's Economy: Performance and Challenges- Oxford University Press, NewDelhi.
16. Jayaraj D and Subramanian S (2010): Poverty, Inequality and Population- Oxford University Press, NewDelhi.
17. Mahendradev S (2010): Inclusive Growth in India- Oxford University Press, NewDelhi.
18. CT Kurien: Poverty, Planning and Social Transformation in India- Allied Publishers, Delhi,1978.
19. BA Prakash (Ed): Kerala's Economic Development: Issues and Problems- Sage publishers, New Delhi,1999.
20. ET Mathew (1997): Employment and Unemployment in Kerala- Sagepublishers.
21. George K K (1999): Limits to Kerala Model of Development- CDS,Trivandrum.
22. Sunil Mani, AnjiiKochar, Arun M Kumar: Crouching Tiger Sacred Cows- D C Books, Kottayam.
23. K Rajan: Kerala Economy: Trends during the Post-reform Period-Serial Publishers, New Delhi.
24. CDS (1975): Poverty Unemployment and Development Policy: A Case Study of Selected Issues with Reference to Kerala- CDS,Trivandrum.
- 25.K.K. George and K.K. Krishnakumar (2012): Trends in Kerala State Finances-1991-92 to 2012-13: A Study in the Backdrop of Economic Reforms in India-Working Paper N0.28- Centre for Socio-economic & Environmental Studies-Kochi (available online).
26. K R Guptha, Indian Economy in 3 volumes: AtlanticPublishers.
27. BA Prakas and Jerry Alwin, Kerala's Economic Development: Emerging Issues and Challenges, Sagepublishers,2018.
28. RBI AnnualReports.
29. Ministry of Finance: Economic Survey-Variou Issues

**Core Course-IV**  
**MA ECONOMICS (CBCSS)**  
**I SEMESTER**  
**ECO1 C04 - QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS I**  
**(Credit 4)**

**Module I: Linear Algebra**

Different types of functions and its graphs, Constant Linear, Quadratic, Cubic, Polynomial, Exponential and logarithmic functions. Applications of linear functions in Economics- Vectors and Matrices, determinants, solution of a system of equations - Inverse method and Cramer's rule- Rank of a matrix-characteristic equations and characteristic roots and vectors.

**Module II: Differential Calculus**

Functions, limit of a function, continuity of a function, Derivative of a function - Rules of Differentiation, Higher order derivatives, differentiation of logarithmic functions, exponential functions and implicit functions- Application of Derivatives- Meaning of a Derivative- rate of change- slope of a curve- Marginal concepts related to demand, supply, cost, revenue and production functions. Maxima and minima- Economic applications.

**Module III: Functions of Several Variables**

Functions of several variables - Partial differentiation- Optimisation of Multivariable functions- constrained optimization with Lagrangian multipliers-Consumers and producers equilibrium using constrained optimization Differentials- Total and Partial derivatives- Total derivatives- Rules of integration- Definite integral, area under a curve-estimation of producers and consumers surplus.

**Module IV: Differential and Difference Equations**

First order Differential equations -Definitions and concepts, general formula for Differential equations – Economic applications-Differential equations for limited and unlimited growth - First order Difference equations- Solution of first order difference equations - General formula for First order Linear Difference equations, applications - stability conditions, Cobb Web model.

**Module V: Financial Mathematics**

Arithmetic and geometric sequence and series- Simple interest, compound interest and annual percentage rates- Depreciation- Net present value and internal rate of return- Annuities, debit repayments, sinking funds- The relationship between interest rates and the price of bonds.

**References**

1. Essential Mathematics for Economics and Business, Teresa Bradley and Paul Patton, Revised by Teresa Bradley, Wiley student Edition Chapter- 2 and Chapter-4.
2. Introduction to Mathematical Economics Edward T. Dowling Third Edition Chapter-8.
3. Taro Yamane: Statistics - An Introductory analysis, Harper & Row, Edition 3.
4. Hoel PG: Introduction to Mathematical Statistics, John Wiley & Sons, Edition.
5. RGD Allen Mathematical Analysis for Economics.
6. Tulsian, P.C and Vishal Pandey: Quantitative Techniques, Pearson Education, New Delhi.



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8. HoodaR.P. Statistics for Business and Economics, Macmillan, NewDelhi.
9. Alpha C Chiang: Fundamental Methods of Mathematical Economics, 2nd Ed. Inter National Student Edition, McGrawhill.
10. Edward T Dowling: Introduction to Mathematical Economics, Third Edition, Schaum's Outlines, Tata Mc Grawhill Publishing Co. Ltd, NewDelhi.
11. SreenathBaruah: Basic Mathematics and its Applications in Economics, MacmillanIndia Ltd.
12. Joseph K.X, Quantitative Techniques, CUCCS Ltd, CalicutUniversity.

## SEMESTER II

<b>Core Course</b>	<b>Title of Course</b>	<b>Hours/Week</b>	<b>Credit</b>
V	Microeconomics: Theory and Applications II	6	5
VI	Macroeconomics: Theories and Policies II	6	5
VII	Public Finance: Theory and Practice	7	5
VIII	Quantitative Methods for Economic Analysis II	6	5
	Professional Competency Course	0	4

**CoreCourse-V**  
**MA ECONOMICS(CBCSS)**  
**II SEMESTER**  
**ECO2 C05 - MICROECONOMICS: THEORY AND APPLICATIONS-II**  
**(Credit 5)**

**Course outcome:** The paper helps to evaluate how the welfare is measured using various criteria. A basic understanding is provided on the asymmetric information and its corrective measures.

**Module I: Intertemporal Choice and Capital Decisions**

Capital and the rate of return- Determining the rate of return- Demand for future goods- Utility maximisation- Effects of changes in r- Supply of future goods- Equilibrium price of future goods- Rate of return- Real interest rates and nominal interest rates- Pricing of risky assets- The firm's demand for capital- The net present value criterion for capital investment decisions- Adjustment for risks- Diversification versus non-diversifiable risks- The capital assets pricing model.

**Module II: General Equilibrium and Welfare Economics**

Elements of general equilibrium analysis-General equilibrium of exchange- General equilibrium of production- Efficiency of competitive markets- Welfare economics- Criteria of social welfare-Pareto optimality-Kaldor-Hicks compensation criterion- Scitovsky criterion-Deriving a Social welfare function- Theory of second best- Arrow's impossibility theorem-Rawls theory of justice- First Theorem of welfare economics- Second Theorem of welfare economics.

**Module III: Externalities and Public Goods**

Externalities-Negative externalities in consumption and production-Positive externalities in consumption and production-Externalities and inefficiency-Ways of correcting market failure- Externalities and property rights-Coase theorem- Common property resources-Tragedy of commons-Public goods-Characteristics- Public goods and market failure-Provision of public goods- Free rider problem- Lindahl pricing.

**Module IV: Asymmetric information**

Asymmetric information- Implications of asymmetric information- The lemons problem- Adverse selection- Hidden information- Moral hazard (hidden action)- Insurance markets-Market signalling- Principal-agent problem- The efficiency wage theory.

**Module V: Behavioural Economics**

Behavioural economics- Reference points and consumer preferences- Rules of thumb and biases in decision making.

## References

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2. Andrew Schotter (2009): Microeconomics: A Modern Approach- 1<sup>st</sup>edition, South Western Cengage Learning.
3. Michael E Wetzstein(2013): Micro economic Theory- Concepts and Connections, 2<sup>nd</sup>edition,Routledge.
4. Robert S Pindyck and Daniel L Rubinfeld (2017): Microeconomics- 8<sup>th</sup>edition,Pearson.
5. Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus- 1<sup>st</sup>edition, South Western Cengage Learning.
6. Andreu Mas-Colell, Michael D Whinston and Jerry R Greene (1995): Microeconomic Theory- 1<sup>st</sup>edition, Oxford University Press.
7. Geoffrey A Jehle (2010): Advanced Microeconomic Theory- 3<sup>rd</sup>edition, Prentice Hall
8. Hall R Varian (2014): Intermediate Microeconomics- A Modern Approach, WW Norton and Co.
9. Jeffrey M Perloff (2019): Microeconomics -7<sup>th</sup>edition,Pearson
10. Hugh Gravelle and Ray Rees (2007): Microeconomics- 3<sup>rd</sup>edition, Pearson Education
11. Edgar K Browning and Mark Zupan (2011): Microeconomics: Theory and Applications- 3<sup>rd</sup>edition.
12. Dominick Salvatore (2009): Principles of Microeconomics – 5<sup>th</sup>edition, Oxford University Press.
13. A Koutsoyiannis (1979): Modern Microeconomics- 2<sup>nd</sup>edition,Macmillan.
14. Robert Y Awh(1976): Microeconomics: Theory and Applications- John Wiley & Sons
15. Watson and Getz (2004): Price Theory and its Uses- 5<sup>th</sup>edition, AITBS Publishers and Distributors.
16. James H Henderson and Richard E Quandt (1980): Microeconomic Theory: A Mathematical Approach- 8<sup>th</sup>edition,McGraw-Hill
17. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- 1<sup>st</sup>edition, Tata McGraw-Hill.

**Core Course-VI**  
**MA ECONOMICS (CUCSS)**  
**II SEMESTER**  
**ECO2 C06 - MACROECONOMICS: THEORIES AND POLICIES II**  
**(Credit 5)**

**Course outcome:** The paper analyzes the basic ideas on classical and Keynesian schools. It helps to understand the various developments in New Classical and New Keynesian schools.

**Module I: Classical vs Keynes**

**Classical Macroeconomics** -Classical revolution, production, employment, equilibrium output and employment, quantity theory of money, classical aggregate demand curve, classical theory of interest rate, policy implications of the classical equilibrium model. Classical model of output and employment

**Keynes's General Theory:** Keynes' main propositions, Keynes's analysis of the labour market, Keynes's rejection of Say's Law, Keynes and the quantity theory of money, Keynesian aggregate demand and supply schedules, Keynes and international macroeconomics- How to pay for the war, Great Depression -Causes and consequences, Keynesian policy conclusions.

**Module II: Monetarism**

The quantity theory of money approach, The monetary approach to balance of payments theory and exchange rate determination, The monetarist view of great depression, fiscal and monetary policy effectiveness.

**Module III: New Classical Macroeconomics, Real Business Cycle School and Supply Side Economics**

**The new classical macroeconomics:** Rational expectations hypothesis, Lucas' surprise supply function, The inter-temporal substitution model, Policy ineffectiveness argument, The Lucas critique- **Real business cycle school:** central features of real business cycle models, a simple real business cycle model, macroeconomic policy in a real business cycle model - **Supply-side macroeconomics:** Supply shocks and stagflation, Laffer curve, Policy implications

**Module IV: New Keynesian Economics**

The fall and rise of Keynesian economics- A Keynesian resurgence, New Keynesian economics, Core propositions and features of new Keynesian economics, Nominal rigidities, Real rigidities, Small menu cost model, Implicit wage contract model- Efficiency wage theories-Insider-outsider model, New Keynesian business cycle theory, Hysteresis and the NAIRU, Policy implications

**Module V: The New Political Macroeconomics**

Political distortions and macroeconomic performance, Political influences on policy choice, The role of government, Politicians and stabilization policy, Alternative approaches to the political business cycle, The Nordhaus opportunistic model, The Hibbs partisan model, The decline and renaissance of opportunistic and partisan models, Rational political business cycles, Policy implications of politico-economic models: an independent central bank?, The political economy of debt and deficits, Political and economic instability.

## References

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2. Richard T Froyen (2008): Macroeconomics: Theories and Policies- Pearson (LPE), Seventh ed.
3. Brian Snowdown and Howard Vane (2005): Modern Macroeconomics: Its Origin, Development and Current State- Edward Elgar Cheltenham, UK. Northampton, USA.
4. Levacic, Rosalind and Rebman, Alexander (1982): Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies- 2nd ed. Macmillan.
5. Eric Pentacost: Macroeconomics-An Open Economy Approach-Macmillan.
6. Rudiger Dornbusch: Stanley Fisher and Richard Startz (2004) Macroeconomics- Tata Mc Graw Hill, 9th ed.
7. Hargreaves Heap S.P (1992): The New Keynesian Macroeconomics: Time, Belief and Social Independence Edward Elgar Publishing.
8. D'Souza, Errol (2008): Macroeconomics- Pearson Education.
9. Fred R Glahe, (1985): Macroeconomics: Theory and Policy- Harcourt Publishers, New Delhi.
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12. Robert J Gordon: Macroeconomics- Eastern Economy Edition.
13. Edward Shapiro: Macroeconomics- Golgotha Publications, New Delhi.
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15. Mervyn K. Lewis and Paul D Mizen (2000): Monetary Economics- Oxford University Press.
16. Jagdish Handa (2000): Monetary Economics-Routledge

**Core Course-VII**  
**MA ECONOMICS (CUCSS)**  
**II SEMESTER**  
**ECO2 C07 - PUBLIC FINANCE: THEORY AND PRACTICE**  
**(Credit 5)**

**Course outcome:** Paper helps to understand the fiscal issues faced by the Indian economy. An analytical study is discussed on the economics effects of tax and expenditure policies and to gain awareness regarding budgetary issues. The course helps to provide a better equip for participation at local grass root levels like the grama sabha.

**Module I: The Case for Public Sector**

The role of government in the national economy-Concepts of club goods, public goods- Tiebout hypothesis, merit goods, externalities, Pigovian tax.

**Module II: Public Revenue and Policy**

Theory of tax- Partial and general equilibrium analysis- Shifting and incidence of tax- Theory of optimal taxation- Distributional considerations in public finance- Fiscal and monetary policies -Comparative analysis- Balanced budget multiplier- Zero based budgeting.

**Module III: Public Expenditure and Debt**

Pure theory of public expenditure-Pricing of public utilities-Public choice theory-The Median Voter theorem- Concept of subsidy-Macroeconomic impacts of deficits- Debt burden and inter-generational equity- Sustainability of public debt and Domar stability condition.

**Module IV: Fiscal Federalism**

Theory of fiscal federalism- Theory of inter-governmental transfers- fiscal decentralisation- Problems of centre-state financial relations in India-Vertical and horizontal imbalance in inter-governmental transfers in India.

**Module V: Indian Public Finance**

Trend and sources of revenue in the union, states and local bodies in India-Trends in public expenditure and public debt in India- GST in federal set-up- The FRBM Act- Federalism and issues of Centrally Sponsored Schemes- Finance Commissions and the changing centre- state relations during the reform period-Analysis of the latest union budget.

**References**

1. Harvey, Rosen, and Ted Gayer. Public Finance (2013)- McGraw-Hill Higher Education,
2. Dalton, Hugh. Principles of Public Finance (2003) - Vol. 1. Psychology Press,
3. Pen, Jan. Income Distribution (1974)-Penguin(Non-Classics).
4. Musgrave, RA and Musgrave, PB (1989)- Public Finance in Theory and Practice, McGraw Hill, New York
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12. Laffont, Jean-Jacques. Fundamentals of Public Economics (1988) -MIT Press Books1

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**Core Course-VIII**  
**MA ECONOMICS (CUCSS)**  
**II SEMESTER**  
**ECO2 C08 - QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS II**  
**(Credit 5)**

**Module I: Probability and Probability Distributions**

Concepts- Set theory- Permutations and Combinations, Definitions of Probability - classical, empirical and axiomatic approaches- Addition and multiplication laws, conditional probability- Bay's theorem, Random variables- probability distribution- Mathematical expectation- moments- Two random variables, joint, Marginal and conditional probability functions, expectation of two random variables.

**Module II: Discrete and Continuous Probability Distribution**

Probability Distributions - Discrete Probability Distributions, Binomial, Poisson, Uniform -simple applications-Continuous probability distributions- Normal, Lognormal and Exponential Distributions (Derivations are not expected), concept of law of large numbers and Central limit theorem.

**Module III: Theory of Estimation**

Statistical Inference, Concept of population, sample- Sampling distributions- Standard error- Distributions of sample mean, Sample variance - chi square Student's t, and F distributions- Small and large sample properties of Z, t, Chi Square and F- Estimations of populations parameters- point and interval estimation- Fisher's properties of estimators-Confidence interval for Mean and Proportion and variance- Methods of estimation-Methods of least squares, Method of maximum likelihood.

**Module IV: Testing of Hypothesis**

Parametric and Non-parametric tests of Hypothesis - Testing of hypothesis- simple and composite hypothesis- Null and alternative hypothesis- Type I and Type II error, Critical region- Level of significance, Power of a test- Test procedure - Test of significance in respect of Mean, Proportion, Variance and Correlation coefficient and their differences -Chi Square test of goodness of fit, and test for independence of attributes. Non parametric tests, sign test, Wilcoxon- Mann Whitney U Test, Signed rank test, KruskalWallis test, Wald-Wolfowitz test.

**Module V: Analysis of Variance**

Analysis of Variance-Meaning, assumptions-One way classification and Two way classifications, simple applications.

**References**

1. Taro Yamane, Statistics: An Introductory Analysis, Harper & Row, Edition 3, 1973
2. Hoel PG: Introduction to Mathematical Statistics, John Wiley & Sons, Edition 4, 1971
3. YP Agarwal: Statistical Methods: Concepts, Application and Computation, Sterling Publishers 1986
4. Sidney Siegal, N. John Castellan: Non parametric Statistics for Behaviour Sciences, Edition 2, 1988, McGraw-Hill
5. Tulsian, P.C and Vishal Pandey: Quantitative Techniques, Pearson Education, New Delhi

6. S.P. Gupta: Statistical Methods, Sulthan Chand and Sons, NewDelhi.
7. Hooda R.P: Statistics for Business and Economics , Mac Million, NewDelhi
8. Alpha C Chiang: Fundamental Methods of Mathematical Economics, 2<sup>nd</sup>Ed. -Inter National Student Edition, McGrawhill
9. Edward T Dowling: Introduction to Mathematical Economics, Third Edition, Shaum'sOutlines, Tata Mc Grawhill Publishing Co. Ltd, NewDelhi.
10. SreenathBaruah: Basic Mathematics and its applications in Economics, Macmillan India Ltd.
11. Joseph K.X, Quantitative Techniques, CUCCS Ltd, CalicutUniversity.

### SEMESTER III

<b>Core Course</b>	<b>Title of Course</b>	<b>Hours/Week</b>	<b>Credits</b>
IX	International Trade	6	5
X	Growth and Development	6	5
XI	Basic Econometrics	7	5
Elective	Banking: Theory and Practice	6	4

**CoreCourse-IX**  
**MA ECONOMICS(CBCSS)**  
**II SEMESTER**  
**ECO3 C09 - INTERNATIONAL TRADE**  
**(Credit 5)**

**Course outcome:** The course provides a sound understanding of the theories underlying international trade. It enhances the students' analytical ability to study and critically assess various trade policies.

**Module I: International Trade and Economic Development**

Importance of trade to development-Trade as an engine of growth-Contributions of trade to development- Terms of trade-Types.

**Module II: Developments in Trade Theories**

Offer Curves- Reciprocal demand theory- Opportunity cost analysis- Factor intensity-Factor abundance-Heckscher-Ohlin Theory- Leontief Paradox- Factor intensity reversal-Factor Price Equalization Theorem- Stolper Samuelson theorem- Metzler Paradox - Economies of scale and international trade- Imperfect competition and international trade-Product differentiation and international trade- Posner's Imitation gap- Vernon's Product Cycle Theory -Leamer's and Treffer's Theorem - Kravis theory of Availability- Linder's theory of Volume of Trade and Demand pattern- Transportation cost and international trade - Foreign trade multiplier.

**Module III: Economic Growth and International Trade**

Growth of labour and capital- Rybczynski theorem- The effect of growth on trade- Immiserising growth- Dutch disease- Prebisch - Singer Thesis-Myrdal's views-

**Module IV: International Trade Policies**

Import substitution versus export orientation - Trade restrictions-Tariffs- Effects of Tariffs -Partial and general equilibrium analysis-Optimum tariff-Effective rate of protection-Non tariff barriers -Import quotas-Effects of an import quota - New Protectionism - Generalized System Of Preference- Exchange control- Export subsidies- Countervailing tariff-Voluntary export restraints- Technical standards- Administrative and other regulations-Dumping and anti-dumping duties- International Cartels -Trade in Wastes.

**Module V: Economic Integration**

Economic Integration - Theories of customs union- Trade creating customs union-Trade diverting customs union-Static welfare effects of customs union-Dynamic benefits from customs union - Emerging issues in SAFTA, ASEAN and EU-Problems and prospects of WTO Agreement in present Global trading.

**References**

1. Dominick Salvatore: International Economics-11th Edition John Wiley & Sons(2014).
2. Bo Sodersten and Geoffrey Reed: International Economics- Macmillan(2008).
3. Paul. R. Krugman and Maurice Obstfeld: International Economics- Pearson Education.
4. Kindleberger, C.P: International Economics- R.D. Irwin, Homewood.
5. Bhagwati, J.N(Ed): International Trade: Selected Readings- MIT Press, 1987.
6. Robert J Carbaugh (2011): Global Economics- Cengage Learning.
7. Giancarlo Gandolfo: International Trade- Spinger International Edition-2006.
8. Dennis R Appleyard and Alfred J Field: International Economics- McGrawHill.
9. Appleyard and Field: International Trade: Theory and Policy.

10. Richard .E. Caves and Harry G. Johnson: Readings in InternationalEconomics.
11. Corden.W.M: Recent Developments in the Theory of International Trade- Princeton UniversityPress.
12. Thomas A. Pugel: International Economics-McGrawHill.
13. James C Ingram and Robert M Dunn: International Economics-John Wiley andSons.
14. Richard Caves, Jeffrey Frankel and Ronald Jones: World Trade and Payments-Pearson Education.
15. Theo Eicher, John Mutti and Michelle Turnovsky (2009): International Economics-Routledge.
16. JagdishBhagwati, Arvind Panagariya and T.N. Srinivasan (1998) Lectures on International Trade, MIT Press, 2ndedition.
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**Core Course-X**  
**MA ECONOMICS (CBCSS)**  
**III SEMESTER**  
**ECO3 C10 - GROWTH AND DEVELOPMENT**  
**(Credit 5)**

**Course outcome :** The paper analyses the indicators of growth and development. It helps to evaluate various theories of growth and development and its applicability of theories to national economy.

**Module I: Concepts and Measurements of Economic Growth and Development**

Concepts of growth and development-Indicators of Economic Development: National Income, Per capita Income, PQLI, Human Development Index, Gender Development Index, Human Poverty Index and Deprivation Index. Measures of Inequality: Kuznets Inverted U hypothesis, Lorenz Curve and Gini-coefficient, Atkinson, Theil, Palmaratio.

**Module II: Theories of Economic Growth**

Harrod-Domar Growth Model- Contributions of Kaldor-Mirrlees and Joan Robinson, Hirofumi Uzawa model, Solow's Growth Model and the Convergence Hypothesis, Endogenous Growth Theory and the role of Human Capital; Indian Plan Models of Mahalanobis and Wage-goods model.

**Module III: Partial Theories of Economic Growth and Development**

Basic Features of Underdeveloped Countries, Population Growth and the Theory of Low-Level Equilibrium Trap, Critical Minimum Effort Thesis, Theory of Big-Push; Balanced Versus Unbalanced Growth Theories- Concepts of linkages.

**Module IV: Stage Theories**

Marxian Stage theory, Rostow's Stage Theory. Theory of Growth and Structural Change. Concept of Dualism: Technological, Social, Geographical and Financial. Myrdal and Circular Causation, Backwash and Spread Effect. Institutions and Economic Growth.

**Module V: Financing Economic Development**

Domestic Resource Mobilisation: Prior-Savings Approach, The Keynesian and Quantity Theory Approaches to the Financing of Economic Development. Foreign Resource: DualGap Analysis.

**References**

1. Adelman, Irma (1961): 'Theories of Economic Growth and Development', Stanford University Press
2. Ahluwalia and I.M.D Little: India's Economic Reforms and Development: Essays for Manmohan Singh
3. Hollis, Chenery, and T. N. Srinivasan: "Handbook of Development Economics, Vol. 1." (1988).
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**CoreCourse-XI**  
**MA ECONOMICS(CBCSS)**  
**III SEMESTER**  
**ECO3 C11 - BASIC ECONOMETRICS**  
**(Credit 5)**

**Course outcome:** The aim of the course is to create an econometric relationship using economic data. It helps the students competent to test economic theories by hypothesis statements. Students should be able to analyse the past, present and future economic facts in a wider perspective.

**Module I: Simple Linear Regression Model**

Nature and scope of Econometrics-Economic theory and mathematical economics-Methodology of econometrics-Uses of econometrics-The concept of PRF -Significance of stochastic error term-The SRF-Problem of estimation- Method of ordinary least squares-Assumptions underlying the method of least squares-Properties of estimators- Gauss Markov theorem-Coefficient of determination,  $r^2$  -Normality assumption-Hypothesis testing- t and F tests-P value- Practical versus statistical significance-Prediction-Method of maximum likelihood-Maximum likelihood estimation of two variables model.

**Module II: Multiple Regression Analysis**

The three variable model-OLS estimation of partial regression coefficients-Multiple coefficient of determination  $R^2$  and adjusted  $R^2$ -Hypothesis testing-Testing the overall significance of the regression model-F test-Testing the equality of two regression coefficients-Restricted least squares-Chow test-General k variable regression model- Matrix approach to estimation and derivation of the properties of OLS estimators.

**Module III: Econometric Problems**

Multicollinearity-Nature, consequences, detection and remedial measures-Autocorrelation-Nature, consequences, detection, and remedial measures- Heteroskedasticity-Nature, consequences, detection and remedial measures.

**Module IV: Extensions of Two Variables and Dummy Variable Regression Model**

Regression through the origin-Functional forms of regression models, log-log, log-lin, lin-log and reciprocal models- Dummy variable-ANOVA models-ANCOVA models-Dummy variable trap-Dummy variables and seasonal analysis-Structural analysis-Piecewise linear regression.

**Module V: Model Specification and Diagnostic Testing**

Types of specification errors-Detection and consequences-RESET-Errors of measurement-Consequences, remedies-Qualitative response regression models-Linear probability model, Logit and Probit.

**References**

1. Damodar N Gujarati and Dawn C Porter (2009): Basic Econometrics, Fifth Edition, McGraw Hill International Edition.
2. Damodar N Gujarati (2011): Econometrics by Example, First Edition, Palgrave, MacMillan.
3. James H Stock and Mark W Watson (2017): Introduction to Econometrics, Third Edition, Pearson, Addison Wesley.

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6. Robert S Pindyck and Daniel L Rubinfeld (1998): Econometric Models and Economic Forecasts, Fourth Edition, McGraw Hill International Edition.
7. Kerry Patterson (2000): An introduction to Applied Econometrics: A Time Series Approach, First Edition, Palgrave.
8. Walter Enders (2010): Applied Econometric Time Series, Third Edition, Wiley India Edition.
9. Richard Harris and Robert Sollis (2006): Applied Time Series Modeling and Forecasting, First Edition, Wiley Student Edition.
10. Dimitrios Asteriou and Robert Hall (2015): Applied Econometrics, 3<sup>rd</sup> Edition, Oxford University Press.
11. Jack Johnston and John Dinardo (1998): Econometrics Methods, Fourth Edition, The McGraw Hill Companies.
12. William H Greene (2018): Econometric Analysis, 8<sup>th</sup> Edition, Pearson Education.
13. Christopher Dougherty (2007): Introduction to Econometrics, Third Edition, Oxford University Press.
14. Chris Brooks (2012): Introductory Econometrics for Finance, 3<sup>rd</sup> Edition, Cambridge.
15. Hamid R Seddighi (2012): Introductory Econometrics - A Practical Approach, Routledge.
16. Chandan Mukherjee, Howard White and Marc Wuyts (1998): Econometric and Data Analysis for Developing Countries, First Edition, Routledge.
17. Peter Kennedy (2013): A Guide to Econometrics, 6<sup>th</sup> Edition, Wiley-Blackwell.
18. AH Studenmund: Using Econometrics: A Practical Guide, Fifth Edition, Pearson Education.



**Elective Course I**  
**MA ECONOMICS (CBCSS)**  
**III SEMESTER**  
**ECO3 E01 - BANKING: THEORY AND PRACTICE**  
**(Credit 4)**

**Course outcome:** The course helps to examine the developments in banking sector in India. It helps to observe trend seen in Kerala banking sector.

**Module I Central Banking**

Structure and functions of central banks-Federal Reserve System-Bank of England- European Central Bank-Reserve Bank of India- Monetary policy- Objectives and instruments- Liquidity management- Autonomy of the RBI-Monetary sector reforms in India since 1991- Recent monetary and credit policy of RBI-Impact of RBI's monetary policy on economic growth and inflation.

**Module II Commercial Banks and Specialised Financial Institutions**

Structure of commercial banks-Public sector banks-Private sector banks-New generation banks-Foreign banks-Functions of commercial banks-Commercial banks and credit creation-Branch expansion programme and policy-Deposit mobilization and sectoral allocation of bank credits- Priority sector lending- Social banking-Lead bank scheme- Land development banks- Regional rural banks-Development financial institutions (IFCI, IDBI, IIBI, SIDBI) - Specialized financial institutions (EXIM Bank-National Housing Bank-NABARD-MUDRA bank)-Specialized investment institutions (Pension funds-Hedge funds-Mutual funds-UTI)- Non Banking Financial Companies-Investment banks-Merchantbanks.

**Module III Innovations in Banking Transactions**

Mail transfer-Telegraphic transfer-MICR clearing-Automated clearing system-Electronic funds transfer-Digital payment system-E-banking-Virtual payments systems-Internet banking- Mobile banking-Home banking-Tele-banking-Corebanking.

**Module IV Banking Sector Reforms in India**

Banking sector reforms since 1991- Context, need and objectives-Implementations of the Narsimham Committee recommendations- Issues in banking sector reforms-Priority sector lending-Asset classification-Non-performing assets-Capital adequacy norms-Regulation of the banking sector-Board for Financial Supervision-Credit Information Bureau of India Limited (CIBIL)-Banking Ombudsman-SARFAESIAct.

**Module V International Banking**

International banking-Reasons for the growth of international banking-Offshore banking-Multinational banking-Bank for International Settlements (BIS)-World Bank-Asian Development Bank-New Development Bank (BRICS bank).

**References**

1. M H de Kock: Central Banking-Universal Book Stall, NewDelhi.
2. Meir Kohn (1996): Financial Institutions and Markets-Tata McGrawHill.
3. Roger LeRoy Miller and David VanHoose(1993): Modern Money and Banking-McGraw-HillInternational.
4. Jawed Akhtar and ShabbirAlam: Banking System in India: Reforms and Performance Evaluation- New Century Publications, New Delhi.
5. Y.V. Reddy: Monetary and Financial Sector Reforms in India- UBSPD, NewDelhi.

6. Suraj.B. Gupta: Monetary Planning for India.
  7. K. Rao: Management of Commercial Banks.
  8. Harendra Badhav (ed): Challenges to Indian Banking: Competition, Globalisation and Financial Markets-Macmillan.
  9. N.S. Kher: Non-Performing Advances in Banks, Skylark, New Delhi.
  10. Hansen and Kathuria (ed.) A Financial Sector for the 21st Century OUP.
  11. Muraleedharan (2009) Modern Banking: Theory and Practice- PHI Learning Pvt Ltd.
  12. Shekhar and Shekhar: Banking Theory and Practice-Vikas Publishing House Limited.
  13. Bharati V Pathak (2011): The Indian Financial System- Pearson Education.
  14. RBI: Report on Trend and Progress of Banking in India.
  15. Report of the Committee (Narsimham) on the Financial System Nov., 1991.
- Raghuram Rajan Committee Report on Financial Sector Reforms- Planning Commission

#### SEMESTER IV

<b>Core Course</b>	<b>Title of Course</b>	<b>Hours/Week</b>	<b>Credits</b>
XII	International Finance	6	3
XIII	Financial Markets	6	3
Elective	Mathematical Economics	6	4
Elective	Research Methodology and Computer Application	6	4
Core XIV	Project	1	4
Core XV	Comprehensive Viva Voce		4

**Core Course-XII**  
**MA ECONOMICS (CBCSS)**  
**IV SEMESTER**  
**ECO4 C12 - INTERNATIONAL FINANCE**  
**(Credit 3)**

**Course outcome:** Students gain knowledge on the international financial and monetary system. An understanding of the various theories of exchange rate determination and factors affecting international capital flows are provided. It analyses the diversions between theory and empirical observations and the causes of these diversions.

**Module I: Balance of Payments**

Balance of payments-Balance of Trade- Components- Equilibrium and disequilibrium in BOP- Methods of correcting BOP deficit-Adjustment Mechanisms-Automatic, price and income adjustments- Elasticity approach- Marshall-Lerner condition- Absorption Approach- Monetary approach- J curve effect- Currency convertibility- Current and capital account convertibility-The Indian experience-FEMA.

**Module II: Exchange Rate and Theories of Exchange Rate**

Exchange rate-Nominal, Real, Effective, NEER, REER- Exchange rate systems- Relative merits and demerits of fixed and flexible exchange rates- Hybrid exchange rates- Purchasing power parity theory-Monetary approach- Asset market (portfolio balance) model- Exchange rate overshooting - Exchange rate in India- Indian Rupee and its fluctuations in international currency market.

**Module III: Foreign Exchange Market**

Foreign exchange market-Functions-Participants- Stability of foreign exchange markets-Spot and forward market- Currency futures and options- Swap market- Foreign exchange risk-Hedging- Speculation- Stabilizing and de-stabilizing- Currency arbitrage- Internal and external balance- Policy adjustments- Expenditure changing and expenditure switching policies-Assignment problem- Swan diagram- Mundell-Fleming model.

**Module IV International Capital Flows**

Portfolio investment and direct investments- Motives for capital flows- Effects of international capital flows- Multinational corporations- Advantages and disadvantages of MNCs- Foreign investment in India since 1991.

**Module V International Monetary System**

International monetary system-The gold standard and its breakdown-Bretton Woods system and its breakdown- Present international monetary system- European monetary union-Euro-Optimum currency areas- Currency boards- Dollarization- Brexit.

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5. Thomas A. Pugel: International Economics-TMH.
6. Michael Melvin: International Money and Finance- Pearson Education.
7. James C Ingram and Robert M Dunn: International Economics- JohnWiley andSons.
8. Keith Pilbeam: Finance and Financial Markets-Palgrave.
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10. Robert J Carbaugh (2011): Global Economics- CengageLearning.
11. Giancarlo Gandolfo: International Finance and Open Economy Macroeconomics- Springer.
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13. Lawrence Copeland: Exchange Rates and International Finance-PearsonEducation.
14. M Levi: International Finance-McGrawHill.
15. Richard Caves, Jeffrey Frankel and Ronald Jones: World Trade and Payments-Pearson.
17. SumatiVarma: Currency Convertibility: Indian and Global Experiences-NewCentury.
18. Theo Eicher, John Mutti and Michelle Turnovsky (2009): International Economics- Routledge.



**Core Course-XIII**  
**MA ECONOMICS (CBCSS)**  
**IV SEMESTER**  
**ECO4 C13 - FINANCIAL MARKETS**  
**(Credit 3)**

**Course outcome:** The paper helps to examine the developments in financial sector in India. It enables to observe trends in Kerala financial sector.

**Module I: Financial Markets**

Functions of financial markets-Types of financial markets- Participants in financial markets- Role of financial intermediaries-Financial innovation-Financial inclusion and inclusive growth.

**Module II: Money Market**

Functions of money market-Instruments of the money market-Call money-Bill of exchange- Commercial bills-Treasury bills- Commercial paper-Interbank market-Federal funds- Negotiable certificate of deposits- Banker's acceptance-Repurchase agreements-Money market mutual funds- Features of a developed money market-Structure of Indian money market- Money market reforms in India since 1991.

**Module III: Capital Market**

Functions of capital market-Primary market-Instruments of the primary market- Secondary market-Functions- Instruments of the secondary market-Demutualisation of stock exchanges- Trading mechanism of the stock exchanges- Liquidity products (margin trading, short sales, securities lending and borrowing)-Foreign Institutional Investment-Participatory notes (P-notes)-Insider trading-Investor protection- Credit rating-Capital market institutions- Depositories-Discount and Finance House of India-Stock Holding Corporation of India-Securities Trading Corporation of India-SEBI-Functions and powers- Capital market reforms in India since 1991.

**Module IV: Derivatives Market**

Types of derivatives-Participants in the derivative markets-Uses of derivatives- Options-Types of options-Uses of options-Platforms for options trade-Trading mechanics-Option premium-Profits and losses with options-Stock options and stock index options in India-Futures- Types of futures (stock index futures-foreign currency futures-interest rate futures-commodity futures)-Uses of futures-Market mechanics-Market participants- The clearing process- Stock futures and stock index futures in India-Difference between options and futures-Swaps-Interest rate swaps-Foreign currency swaps.

**Module V: Global Financial Markets**

Instruments- American Depository Receipts (ADR)-Global Depository Receipts (GDR)- Foreign Currency Convertible Bonds (FCCB)-External commercial borrowings-International bonds-Eurobonds-Euronotes-Euro commercial papers-Eurodollars-Eurocurrency market-Reasons for the growth-Features-Effects of the eurocurrency market.

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2. Keith Pilbeam (1998): Finance and Financial Markets-Palgrave.
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16. Bharati V Pathak (2011): The Indian Financial System- PearsonEducation.
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16. Suraj.B. Gupta: Monetary Planning forIndia.
17. K. Rao: Management of CommercialBanks.
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26. RaghuramRajan Committee Report on Financial Sector Reforms- PlanningCommission.









**Elective Course**  
**MAECONOMICS**  
**(CBCSS)IV**  
**SEMESTER**  
**ECO4 E08 - MATHEMATICAL ECONOMICS**  
**(Credit 4)**

**Course outcome :** To evaluate the quantitative aspects of the economic theories. It helps to understand the wider range of mathematical applications in life patterns. The course empirically investigate the assumption and conclusion of theories with observed facts.

**Module I Theory of Consumer Demand**

Utility maximization- derivation of demand functions – Elasticity- measurement –Slutsky equation -Direct and cross effects - Homogeneous and homothetic utility functions - Indirect utility function - Roy's identity - Linear expenditure systems -Constant elasticity models.

**Module II Theory of Production**

Production Function – Producers equilibrium – derivation of input demand functions - Cobb-Douglas production function - CES production function -VES production function- Translog production. Cost function: Derivation of cost as a function of output-Duality - Shepherd's lemma- derivation of supply function- generalized Leontief cost function - Technological progress and production function.

**Module III Theory of Markets**

Mathematical treatment of market equilibrium- Single goal firm and multiple goal firms- Mathematical treatment of equilibrium under different market situations.

**Module IV Linear Programming and Input-Output Analysis**

Linear programming: Primal and dual problem - General linear programme - Complementary slackness theorem - Simplex solution-Input Output Analysis: Open and closed, static and dynamic Leontief system -Technological viability -Hawkins-Simon's conditions for viability-

**Module V Decision Theory**

Decision theory framework-Payoff tables-Regret tables-Decision under uncertainty-uncertainty and risk-Methods of incorporating risk-Value of perfect information-Decision tree and its uses-Theory of Games: Two person zero-sum game - Pure and mixed strategy - Saddle point theorem.

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**Elective Course**  
**MAECONOMICS**  
**(CBCSS)IV SEMESTER**  
**ECO4 E10 - RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS**  
**(Credit 4)**

**Course outcome :** The course helps to understand on research methodology and research problem. It helps to analyses the basic technique on data collection and sampling. Students get a wider knowledge on computer application

**Module I: Fundamentals of Research Methodology**

Meaning of research- The relation between theory and research- Types of research- Scientific and social research- Pure and applied research- Special features of social research- Different approaches in social research.

**Module II: Formulation of Research Problem**

Formulation of null and alternative hypothesis- Research design and methods- Exploratory, diagnostic and experimental studies- Deductive and inductive method- Static and dynamic method- Historical and dialectical method- Case study method-Interdisciplinary research.

**Module III: Data Collection**

Sources of data- Primary and secondary- Time series and cross section data- Sample survey- Methods - Interview methods-Questionnaire methods- Construction of questionnaire.

**Module IV: Sampling Methods**

Random, stratified, multistage, systematic, cluster, quota and judgment samples- Data analysis techniques- Drawing inferences from analysis- Scaling-Problems and Techniques- Report writing procedures.

**Module V: Computer Applications**

Estimation of mean, median and mode-Standard deviation and coefficient of variation- Presentation of graphs- Line, sub divided, multiple, pie graphs- Estimation of growth rates- Estimation of trend equations- Estimation of regression equations- Introduction to EXCEL, SPSS.

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