

DEPARTMENT OF ECONOMICS AND PUBLIC POLICY

CENTRAL UNIVERSITY OF HIMACHAL PRADESH, TAB-II, DHARAMSHALA

FULL COURSE CATALOGUE

APPROVED BY BOARD OF STUDIES UNTILL 25th SEPTEMBER 2020

Semester wise Courses under BA (Hons) Economics Programme

Semester – I	Credits	Semester - II	Credits
ECN 101: Principles of Microeconomics	4	ECN 102: Principles of Macroeconomics	4
ECN 238: Mathematical Methods for Economics-I	4	ECN 240: Mathematical Methods for Economics-III	4
ECN 239: Mathematical Methods for Economics-II	4	ECN 241: Mathematical Methods for Economics-IV	4
ECN 103: Statistical Methods	4	ECN 209: Introduction to Probability Theory	4
Ability Enhancement Compulsory: ECN 108: Media and Information Literacy (MIL)	2	Ability Enhancement Compulsory: ECN 113: Environmental Issues	2
Skill Enhancement Elective-I	2	Skill Enhancement Elective-II	2
Generic Compulsory: EEL 110: Functional & Communicative Skills in English	4	Generic Compulsory: EEL 112: Analytical Skills in English	4
Credit	24	Credit	24
Semester – III	Credits	Semester - IV	Credits
ECN 201: Intermediate Microeconomics -I	4	ECN 301: Intermediate Microeconomics -II	4
ECN 202: Intermediate Macroeconomics -I	4	ECN 302: Intermediate Macroeconomics -II	4
ECN 242: Mathematical Methods for Economics-V	4	ECN 236: Operation Research	4
ECN 204: Introductory Econometrics-I	4	ECN 304: Introductory Econometrics-II	4
Generic Compulsory: EEL 211: Academic Writing Skills	4	Generic Compulsory: EEL 212: Reading and Comprehension Skills	4
Generic Elective-I	4	Generic Elective-II	4
Credit	24	Credit	24

Semester - V	Credits	Semester - VI	Credits
ECN 203: Intermediate Development Economics- I	4	ECN 303: Intermediate Development Economics- II	4
ECN 205: International Economics	4	ECN 104: Indian Economy	4
Discipline Specific Elective -I	4	ECN 399: Term Paper	4
Discipline Specific Elective -II	4	Discipline Specific Elective -V	4
Discipline Specific Elective -III	4	Discipline Specific Elective -VI	4
Discipline Specific Elective -IV	4		
Credit	24	Credit	20

Disciple Specific Electives			
Sr. No.	Course Code	Course Name	Credit
1	ECN 105	Comparative Economic Development (1850-1950)	4
2	ECN 106	Economic History of India (1857-1947)	4
3	ECN 107	History of Economic Thought- I	4
4	ECN 206	Public Economics	4
5	ECN 211	Agricultural Economics-I	4
6	ECN 212	Ecological Economics	4
7	ECN 213	Economics of Energy	4
8	ECN 214	Economics of Health and Education	4
9	ECN 215	Economics of Human Resource Development	4
10	ECN 216	Economics of Industrial Organisation	4
11	ECN 217	Economics of Innovation and Entrepreneurship	4
12	ECN 218	Environmental Economics -I	4
13	ECN 219	Financial Economics-I	4
14	ECN 220	Health Economics	4
15	ECN 221	Political Economy-I	4
16	ECN 222	Labour Economics	4
17	ECN 223	Law and Economics	4
18	ECN 224	Money and Banking	4
19	ECN 225	Money and Financial Markets	4
20	ECN 226	Population Economics	4
21	ECN 227	Rural Economics	4
22	ECN 228	Urban Economics	4
23	ECN 229	Welfare Economics	4
24	ECN 230	Game Theory-I	4

25	ECN 231	History of Economic Thought- II	4
26	ECN 307	Behavioural Economics	4
27	ECN 308	Environmental Economics -II	4
28	ECN 309	Financial Economics-II	4
29	ECN 310	Information Economics	4
30	ECN 311	Institutional Economics	4
31	ECN 312	Political Economy-II	4
32	ECN 313	Contract Theory	4
33	ECN 314	Game Theory-II	4
34	ECN 317	Financial Econometrics	4
35	ECN 320	Agricultural Economics-II	4

Generic Elective Courses			
Sr. No.	Course Code	Course Name	Credit
1	ECN 232	Data Analysis	4
2	ECN 233	Computer Application in Economics -I	4
3	ECN 234	Data Base Management System	4
4	ECN 235	Basics of Statistical Inference	4
5	ECN 237	Introduction to Sampling and Inference	4
6	ECN 305	Differential Calculus	4
7	ECN 315	Advanced Calculus	4
8	ECN 316	Computer Application in Economics -II	4
9	ECN 318	Abstract Algebra	4

Note: The Students may select Generic courses offered by other departments of the university in disciplines like Computer Applications, Mathematics, Statistics, Finance and related fields.

Skill Enhancement Elective Courses			
Sr. No.	Course Code	Course Name	Credit
1	EEL 201	Oral Communication Skills in English	2
2	ECN 113	Environmental Issues	2
3	ECN 114	Climate Change	2
4	ECN 115	Waste Management	2
5	ECN 116	Air and Water Pollution	2
6	ECN 117	Environmental Impact Assessment	2
7	ECN 118	Basic Computer Applications-I	2
8	ECN 119	Basic Computer Applications-II	2
9	HIL 101	□□□□□ □□□□□□□□ □□ □□□□ □□□□	2
10	HIL 102	□□□□□ □□□□□ □□ □□□□ □□□□	2

11	HIL 103	□□□□□□ □□□□□□□□□□□□ □□ □□□□□□	2
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AMENDED COURSE STRUCTURE OF MA ECONOMICS PROGRAMME

CORE COMPULSORY COURSES

Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 450	Microeconomics I	4	
2	ECN 520	Microeconomics II	4	
3	ECN 451	Macroeconomics I	4	
4	ECN 521	Macroeconomics II	4	
5	ECN 403	Statistical Methods	4	
6	ECN 453	Development Economics	4	
7	ECN 452	Econometrics I	4	
8	ECN 522	Econometrics II	4	
9	ECN 423	International Economics	4	
10	ECN 404	Mathematics for Economists	4	

CORE OPEN COURSES

(12 CREDITS)

Group I (Choose 04 credit)				
Sr. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 499	Dissertation (M. A.)	4	
2	ECN 514	Community Lab for Economics	4	
3	ECN 446	Field Work and Report Writing	4	

Group II (Choose 08 credit)				
S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 501	Mathematical Economics	4	
2	ECN 512	Game Theory	4	
3	ECN 502	History of Economic Thought	4	
4	ECN 455	Research Methodology for Social Sciences	4	
5	ECN 524	Economics of Growth	4	
6	ECN 440	Evolution of Indian Economic System	4	
7	ECN 420	Computer Application for Economists -I	4	
8	ECN 507	Computer application for Economists -II	4	

ELECTIVE SPECIALIZATION

(CHOOSE 16 CREDITS FROM ANY ONE GROUP)

Note: A specialization shall only be offered if minimum 10 students have opted for it.

Specialization I: Public Policy				
S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 408	Public Economics	4	
2	ECN 416	Environmental Economics	4	
3	ECN 513	Institutional Economics	4	
4.	ECN 424	Economics and Law	4	
5.	ECN 458	Evolution of Economic Policy in India	4	
6.	ECN 409	Money & Banking	4	

Specialization II: Financial Economics				
S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 539	Monetary Economics	4	
2	ECN 508	Financial & Capital Markets	4	
3	ECN 509	International Financial Institutions	4	
4.	ECN 526	Financial Econometrics	4	
5.	ECN 527	Financial Structures and Economic Development	4	
6.	ECN 540	Financial Economics	4	
7.	ECN 541	Banking and Finance	4	
8.	ECN 542	Banking and Insurance	4	
9.	ECN 543	History of Monetary Policy	4	

Specialization III: Industrial Organization				
S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 528	Industrial Organization	4	
2	ECN 529	Economics of Regulation and Competition Law	4	
3	ECN 530	Industrial Development in India	4	
4.	ECN 531	Economics of Technological Change	4	

Specialization IV: Agricultural Economics				
S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 532	Agricultural Development	4	
2	ECN 533	Production Economics	4	
3	ECN 534	Agricultural Marketing	4	
4.	ECN 535	Agro-based Industry	2	
5.	ECN 536	Agricultural Finance	2	

6.	ECN 537	Agricultural Value Chain	2	
Specialization V: Economic Theory and Policy				
S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 408	Public Economics	4	
2	ECN 416	Environmental Economics	4	
3	ECN 424	Economics and Law	4	
4.	ECN 409	Money & Banking	4	
5.	ECN 411	Agricultural Economics	4	
6.	ECN 528	Industrial Organization	4	
7.	ECN 415	Labour Economics	4	
8.	ECN 512	Game Theory	4	

ELECTIVE OPEN (04 CREDITS)

S. No.	Course Code	Course Name	Credits	Pre-requisite/ Remarks
1	ECN 501	Mathematical Economics	4	
2	ECN 512	Game Theory	4	
3	ECN 409	Money & Banking	4	
4	ECN 502	History of Economic Thought	4	
5	ECN 455	Research Methodology for Social Sciences	4	
6	ECN 454	Economic Analysis using Statistical Packages	2	
7	ECN 524	Economics of Growth	4	
8	ECN 440	Evolution of Indian Economic System	4	
9	ECN 513	Institutional Economics	4	
10	ECN 417	Economics of Health	4	
11	ECN 424	Economics and Law	4	
12	ECN 505	Economics & Financial Services	4	
13	ECN 506	Human & Sustainable Development	4	
14	ECN 509	International Financial Institutions	4	
15	ECN 510	Resource and Environmental Economics	4	
16	ECN 411	Agricultural Economics	4	
17	ECN 412	Industrial Economics	4	
18	ECN 415	Labour Economics	4	
19	ECN 426	Poverty and its Estimation	2	
20	ECN 431	Human Development: Concept & Measurement	2	
21	ECN 523	Mathematical Optimization	4	
22	ECN 538	Probability Theory	4	
23	ECN 401*	Basics of Microeconomics	2	
24	ECN 406*	Basics of Macroeconomics	2	
25	ECN 434*	National Income: Concept and Measurement	2	

26	ECN 444*	Economics of Microfinance	2	
27	ECN 445*	Basic Terms and Concepts in Economics	2	
28	ECN 449*	Issues in Economic Development	2	
29	ECN 519*	Basics of Game Theory	2	
30	ECN 407*	Indian Economic Environment	2	
31	ECN 456*	Basic Statistical and Econometric Techniques	2	
31	ECN 457*	Economics of Values and Ethics	2	

Note: * The courses, ECN 401, ECN 406, ECN 434, ECN 444, ECN 445, ECN 449, ECN 519, ECN 407, ECN 456 and ECN 457, will only be offered to students of other departments.

AMENDED COURSE STRUCTURE OF Ph. D in ECONOMICS PROGRAMME

ECN 601	Research Methods in Quantitative Techniques	4	6		
ECN 602	Recent Developments In Indian and Global Economy	4	6		
ECN 603	Advanced Economic Theory	4	6		
ECN 604	Advanced Econometric Techniques and Their Applications	4	6		
ECN 605	Econometrics Methods	4	6		
ECN 606	Recent Developments in International Trade	4	6		
ECN 607	Recent Development in Agricultural Economics	4	6		
ECN 608	Recent development in Social Sector	4	6		
ECN 609	Recent Developments in Labour Economics & Industrial Relations	4	6		
ECN 610	Recent Developments in Environmental Economics	4	6		
ECN 611	Recent Developments in Money, Banking & Financial Institutions	4	6		
ECN 612	Recent Developments in Urban Economics	4	6		

SYLLABUS

ECN: 403 Statistical Methods

Course Code: ECN 403

Course Name: Statistical Methods

Credits: 4

Course objectives:

- to familiarize students with statistical methods;
- to enable students to apply statistical methods in data analysis.

COURSE CONTENTS

Unit- I (12 hours)

Univariate, Bivariate and Multivariate distributions: Meaning, Frequency tables, Cross tabulation. Graphs: Histogram, Line graph and Scatter Plot; Central tendency: Mean, Median, Mode; Measures of Dispersion: Range, Quartile deviations (QD), Mean deviation, standard deviation, Coefficient of variation (CV), Box Plots; Measure of inequality: Lorenz curve, Gini coefficient, FGT (Foster-Greer-Thorbecke) measures of poverty, Herfindahl-Hirschman Index (HHI).

Unit-II (12 hours)

Measures of Skewness and kurtosis; Correlation: Simple correlation, Partial correlation, Multiple Correlations; Index Numbers: Simple index number, Composite index number, Price Index, Splicing.

Unit- III (12 hours)

Probability: Basic concepts of probability, Tree diagram; Probability Distributions: Probability distribution for discrete and continuous variables, Joint probability distribution; Expectation and moments; Normal distribution, Binomial distribution, Poisson distribution; Central limit theorem; Inference using normal distribution.

Unit IV (12 hours)

Sampling: Sample and population, Random sampling, sampling distribution and standard error; Tests of significance: Hypothesis testing, Z-test, t-test, F-test, Chi square test, Analysis of Variance (ANOVA).

Unit- V

(12 hours)

Time Series Analysis: Nature and decomposition of a time Series, Analysis of trends, Moving average, seasonal component, Cyclical and random component.

Prescribed Text Books:

Hamilton, Lawrence C. (1990). *Modern Data Analysis: A First Course in Applied Statistics*. Belmont, CA: Brooks/Cole Publication.

Nagar, A. L. and R. K. Das. (1976). *Basic Statistics, 2nd edition*. New Delhi: Oxford University Press.

Freedman, David, Robert Pisani and Roger Purves. (2009). *Statistics, 4th edition*. New York: W. W. Norton & Company.

Koutsoyiannis, A. (1977). *Theory of Econometrics*. New York: Palgrave.

Supplementary Readings:

Clark, Megan J. and John A. Randal (2010). *A First Course in Applied Statistics, 2nd edition*. Pearson Education.

Dunn, Dana S. (2001). *Statistics and Data Analysis for the Behavioral Sciences*. New York: McGraw-Hill.

Hamilton, Lawrence C. (2003). *Statistics with STATA, 8th edition*. Boston: Brooks/Cole, Cengage Learning.

Lewis, Margaret (2011) *Applied Statistics for Economists*, Routledge.

Marsh, Catherine (2009). *Exploring Data: An Introduction to Data Analysis for Social Scientists, 2nd Edition*. London: Polity Press.

Moore, D.S. and McCabe, G.P. (2003). *Introduction to the Practice of Statistics*. New York: W.H. Freeman & Company.

Ott, Lyman R and Longnecker, Michael (2008) *An Introduction to Statistical Methods and Data Analysis, 6th Edition*. Belmont, CA: Brooks/Cole Publication.

Peck, Roxy, Chris Olsen, Jay L. Devore. (2012). *Introduction to Statistics and Data Analysis, 4th edition*. Boston: Brooks/Cole, Cengage Learning.

Rohwer, Götz (2012) *Models in Statistical Social Research*. Routledge.

ECN: 404 Mathematics for Economists

Course Code: ECN 404

Course Name: Mathematics for Economists

Credits: 4

Course objectives:

- to make students capable to understand basic mathematics required for understanding economics.
- to familiarize students with the use of mathematics as a tool to analyze economic phenomena.
- to familiarize students with elementary matrix algebra and its application to econometrics and optimization.
- to understand calculus like optimization of functions of several variables, and be able to apply their knowledge to simple economic problems.

Course Content

Unit- I (12 hours)

Significance of Mathematics in Economics; Real numbers; Set theory; Relations and functions; Economic equilibrium analysis.

Unit- II (12 hours)

Linear models and Matrix Algebra: Matrix operations; Commutative, associative, distributive laws, Transposes, Determinants, Nonsingularity, Laplace expansion, Matrix inversion, Cramer's rule; Applications in Economics: Input-output model.

Unit- III (12 hours)

The derivative: Limit; Continuity; differentiability, Rules of differentiation, Partial differentiation, Total differentials, Total derivatives, Implicit functions.

Unit- IV (12 hours)

Optimization: First and second derivative tests; Derivatives of exponential function and logarithmic function: Applications in Economics: Profit Maximization. Functions of two or more variables: Second order partial derivatives and total differentials; Finding maximum/minimum.

Unit- V

(12 hours)

Unconstrained optimization, Quadratic forms, Characteristic roots, Concavity and convexity; Applications in Economics. Constrained optimization: Classical Programming, Lagrange multiplier, Second order condition; Applications in Economics: utility maximization and consumer demand, Homogeneous function. Rules of integration; Indefinite integrals; Definite integrals; Improper Integrals.

Prescribed Text Books:

Chiang, Alpha C. and Kevin Wainwright (2005) *Fundamental Methods of Mathematical Economics 4th Edition*. New York: McGraw-Hill/Irwin.

Sydsaeter, Knut and Peter J. Hammond (1995) *Mathematics for Economic Analysis*. New Delhi: Pearson Education.

Supplementary Readings:

Simon, Carl P. and Lawrence E. Blume (1994). *Mathematics for Economists*. New York: W. W. Norton & Company.

Sundaram, Rangarajan K. (1996). *A First Course in Optimization Theory*. New York: Cambridge University Press.

Intriligator, Michael D. (2013). *Mathematical Optimization and Economic Theory*. Delhi: PHI Learning Private Limited.

Sydsaeter, Knut, Peter J. Hammond, Atle Seierstad and Arne Strom (2008) *Further Mathematics for Economic Analysis 2nd Edition*. Prentice Hall.

Vohra, Rakesh V. (2005). *Advanced Mathematical Economics*. New York: Routledge.

Carter, Michael (2001). *Foundations of Mathematical Economics*. Cambridge: MIT Press.

Franklin, Joel N. (2003). *Methods of Mathematical Economics: Linear and Nonlinear Programming, Fixed-Point Theorems*. Delhi: PHI Learning Private Limited.

ECN: 405 Microeconomic Theory

Course Code: ECN 405
Course Name: Microeconomic Theory
Credits: 4

Course Objectives:

1. To equip students with comprehensive and rigorous theoretical concepts and methodology;
2. To enabling students analyzing the behavior of individuals, firms and markets using general, static and partial equilibrium approach.

COURSE CONTENTS

Unit-I (12 hours)

Consumer preferences, opportunity sets, optimum choices, indirect utility demand functions, income and substitution effects, Slutsky equation, normal versus inferior goods, types of demand functions, elasticity, welfare evaluation, consumer surplus, equivalent variation and compensating variation, revealed preference (weak and strong axioms)

Unit-II (12 Hours)

Expected utility function, measures of risk aversion, state-preference approach, portfolio theory and pricing of risk, present discounted value approach to investment decisions, adjustments for risk

Unit -III (16 Hours)

Production functions, types of production functions (Cobb-Douglas, CES, etc.), marginal products, rate of technical substitution, technical progress, cost functions, average and marginal costs, short run versus long run costs, economies of scale and scope, profit maximization, cost minimization, derivation of input demand

Unit-IV (10 Hours)

Assumptions of perfect market, competitive markets – demand and supply, demand and supply curves of individual firms, short-run versus long-run, competitive market equilibrium, tax incidence analysis, price-controls and shortages

Unit- V

(10 Hours)

Market failure, imperfect markets – monopolistic competition and oligopoly, sources of monopoly power, monopoly market equilibrium, price discrimination – first, second and third degree, tax incidence

Prescribed Text Books:

Koutsoyiannis, A. (1985), *Modern Microeconomics*, Macmillan, London.

Varian Hal R (1995), *Intermediate Micro Economics: A Modern Approach*, W.W Norton, New York

Pindyck, Robert S. and Rubinfeld, Daniel L. (2009), *Micro Economics (7th Edition)*, Pearson Education, New Delhi.

Supplementary Readings:

Ferguson, C.E. (1968), *Microeconomic Theory*, Cambridge University Press, London.

Stigler, G.J.(1996), *The Theory of Price (4th Edition)*, Premier Hall, New Delhi

Baumol W. J. (1982), *Economic Theory and Operations Analysis, 4th Ed*, Prentice Hall of India, New Delhi

ECN: 406 Basics of Macro Economics

Course Code: ECN 406

Course Name: Basics of Macroeconomics

Credits 2

Course Objectives:

Familiarize students with the basic concepts of Macroeconomics

Enable the students to understand the functioning of the macro economy

Developing critical skills to understand the implications of macroeconomic policies

Course Content:

UNIT – I (2 Hours)

Meaning, scope and importance of macro Economics, Schools of thought in macro economics, Concepts of gross domestic product, GNP and national income; Circular flow of income in two, three and four-sector economy; Measurement of national income; India's national income accounts

UNIT – II (4 Hours)

Say's law of markets and the classical theory of employment; Keynesian theory of income, output and employment; Aggregate demand and aggregate supply functions; The principle of effective demand; Consumption function — average and marginal propensities to consume, factors influencing consumption spending, Keynes Psychological law of consumption, Post Keynesian theories of consumption: relative and permanent income hypotheses

UNIT – III (5 Hours)

Investment: autonomous and induced investment; Marginal efficiency of capital, Theories of Investment: classical, Keynesian and accelerator theory, Multiplier: investment, budget and tax; IS and LM curves: derivation, shifts and rotations, simultaneous equilibrium in product market and money market.

UNIT – IV (5 Hours)

Money — meaning, functions and classification, Demand for money: quantity theory of money, fischer equation and cambridge equation ; Keynes' approach: transaction, precautionary and speculative demand for money, Friedman's restatement of quantity

theory of money, Money Supply: meaning and measures M1, M2, M3, M4; Credit creation and credit control by banks and Money multiplier.

UNIT -V

(4 Hours)

Inflation: meaning, types and effects; Demand pull and cost push theories of inflation; Tradeoff between inflation and unemployment – Phillips curve, Macroeconomic policies: objectives and Instruments.

Prescribed Text Books:

Branson, W.H., *Macro-Economic Theory and Policy Third Edition* , East West Press , New Delhi

Dornbusch, R. and S. Fischer (2005), *Macroeconomics, 4e*, McGraw-Hill, Kogakusha Tokyo.

Shapiro, Edward (2001), *Macroeconomic Analysis Fifth Edition*, Galgotia Publication, New Delhi.

Supplementary Readings:

1. Patinkin, Don (1965), *Money, Interest and Prices*, Harper and Row, New York.

2. Rakshit, M. (1998), *Studies in Macroeconomics in Developing Countries*, Oxford University Press, New Delhi

3. Andrew B. Abel, Ben S. Bernanke and Dean Croushore (2011), *Macroeconomics*, Indian Edition, Pearson

ECN 407 Indian Economic Environment

Course Code: ECN 407

Course Name: Indian Economic Environment

Credits: 2

Course Objective:

Acquaint with knowledge of Indian Economic Environment.

Understand the various issues pertaining to Indian economy and its economic environment.

Identify social, political and economic factors in the Indian Economy with reference to the global economy.

COURSE CONTENTS

UNIT I (3 hours)

Colonialism and underdevelopment of Indian Economy: Condition of Indian Economy pre British and during British rule; nature of Indian Economy; structure of Indian economy; broad Demographic Features: population size and growth rates; census 2011.

UNIT II (7hours)

Indian Agriculture: Role and nature; agricultural production and productivity trends; green revolution; food security; Industrial policies of India – New industrial policy: Objectives and appraisal – Reforms and liberalization of the Indian economy

UNIT III (3 hours)

Money and Banking: Indian Money market: structure and characteristics of Indian money market; banking In India: nationalisation of banks; banking structure in India; banking sector reforms; RBI; capital market: structure and role of capital market in India's Industrial growth

UNIT IV (3 hours)

Indian Tax structure; Indian Fiscal policy: objectives and Fiscal federalism; Planning in India: Rationale and genesis of planning in India; various five year plans in India.

UNIT V

(4 hours)

Indian Foreign Trade: value; composition and direction; India's foreign exchange rate policy and concept of convertibility of Indian rupee; FERA and FEMA; Globalisation: Concept and meaning; effects and critical appraisal of Globalisation; Economic institutions – International Monetary Fund (IMF) and World Trade Organisation

Prescribed Text Books:

Kaushik basu (ed.) (2004), *India's Emerging Economy: Performance and Prospects in the 1990s and Beyond*, Oxford University Press, New Delhi

Misra S.K. & Puri V.K. *Indian Economy*, Himalaya Publishing House, Mumbai

Sundharam K.P.M. and Datt Ruddar (2001) *Indian Economy*, S. Chand & Sons, New Delhi

Supplementary Reading

1. Dhingra, I. C. (2001), *The Indian Economy: Environment and Policy*, Sultan Chand & Sons, New Delhi.

ECN: 408 Public Economics

Course Code: ECN 408

Course Name: Public Economics

Credit: 4

Course Objectives

- To familiarize students with basic concepts of public economics.
- To enable students to understand different principles and theories of public economics.
- To enable students to understand changing scenario of revenue and expenditure.
- To enable students to understand changing role of government in the changed economic dispensations.

COURSE CONTENTS

UNIT I (10 hours)

Introduction and Background to public finance; Theoretical Tools of Public Finance; Budget Analysis and Deficit Financing: Government Budgeting, Measuring the Budgetary Position of the Government

UNIT II (10hours)

Externalities: Problems and Solutions: Externality Theory , Private-Sector Solutions to Negative Externalities, Public-Sector Remedies for Externalities; Externalities in Action: Environmental and Health Externalities

UNIT III (10 hours)

Public Goods: Optimal Provision of Public Goods, Private Provision of Public Goods, Public Provision of Public Goods; Cost-Benefit Analysis: Measuring the Costs of Public Projects, Measuring the Benefits of Public Projects; Unanimous Consent on Public Goods Levels, Mechanisms for Aggregating Individual Preferences, Representative Democracy

UNIT IV (15 hours)

Taxation: Types of Taxation, Measuring the Fairness of Tax Systems, Defining the Income Tax Base; The Equity Implications of Taxation; Tax Inefficiencies and Their Implications for Optimal Taxation, Taxation on savings; Fundamental Tax reform.

UNIT V

(15 hours)

Public Expenditure: rationale for the growth of public expenditure; Wagner's law of increasing state activities, Wiseman-Peacock hypothesis; cost benefit analysis, shadow pricing, discounting and cost of capital, risk and uncertainty;

Prescribed Text Books:

Gruber, Jonathan(2010) *Public Finance and Public Policy* , New York: Worth Publisher

Atkinson, A., and J. Stiglitz (1980) *Lectures on Public Economics*. New York, NY: McGraw Hill

Supplementary Readings:

Cullis, John. And Jones. Philip, *Public Finance and Public Choice Analytical Perspectives, Third edition* , Oxford university press.

Musgrave, R.A. and P.B. Musgrave, *Public Finance in Theory and Practice Fifth Edition*, Tata-McGraw Hill Education Private Ltd, New Delhi.

Amaresh Bagchi, (2005) *Readings in Public Finance*, Oxford University Press, New Delhi.

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ECN: 409 Money & Banking

Course Code: ECN 409
Course Name: Money & Banking
Credits: 4

Course Objectives:

- enabling students to understand different aspects of monetary theory, institutions and policy;
- familiarize students with basic concepts and functions of commercial banks;
- enabling students to understand analytically the debates in monetary policy and banking sector especially in the Indian context.

COURSE CONTENTS

Unit I (8 Hours)

Money and Interest Rates, changes in equilibrium interest rate, risk structure of interest rates, the subprime collapse and the Baa-Treasury Spread, Expectations theory, market segmentation theory, liquidity premium theory, the lemon problem.

Unit II (12 Hours)

Commercial Banks- theoretical basis, profitability & liquidity management, growth and structure, Assets & liabilities of banks, lending & portfolio choice, risk management in banking. Co-operative Banks- origin & growth, features, problems & policy, Khusro committee recommendation. Small savings, provident funds, and pension funds, current pension schemes.

Unit III (10 Hours)

Supply of Money-sources of money supply, measures and theory of money supply, monetary expansion & the money multiplier, monetary expansion & currency drain, Reserve Bank of India-Organization and Management, Roles, Monetary policy, recent policy

development, liquidity adjustment facility, challenges to monetary policy in India, Securities and Exchange Board of India

Unit IV

(20 Hours)

Call Money Market, Treasury Bills Market, Commercial Bills Market, Market for Commercial Paper & Certificate of Deposits, The Discount Market, Market for Financial Guarantees, Government (Gilt-Edged) Securities Market

Unit V

(10 Hours)

Industrial Securities Market, Futures, Options and Other Financial Derivatives, Role and Functions of Insurance Companies, Bancassurance & IRDA, Financial Crisis & its Damage to the Economy.

Prescribed Text Books

Bhole, L M (2009): *Financial Institutions & Markets*, Tata McGraw Hill (5th Edition).

Mishkin, Frederic S & Eakins, Stanley G. (2012): *The Economics of Money, Banking and Financial Markets*, Prentice Hall (7th Edition).

Indian Institute of Banking and Finance (2008): *Principles & Practices of Banking*, Macmillan.

Selected Materials will be provided in the class room for reading and discussion.

Supplementary Readings:

Reddy Y V (2000): *A Review of Monetary and Financial Sector Reforms: A Central Bank's Perspective*, Universal Book Stall, New Delhi.

Lewis & Muzan (2000): *Monetary Economics*, Oxford University Press.

The Economics Times, The Business Line, & Financial Express.

ECN: 411 Agricultural Economics

Course Code: ECN 411

Course Name: Agricultural Economics

Credit: 4

Course objectives:

- familiarize students with theoretical and conceptual issues in agricultural economics
- familiarize students with issues that are relevant to Indian agricultural economics
- enable students to understand and analyse problems of Indian agriculture

COURSE CONTENTS

Unit-I: (12 hours)

Role of agriculture in economic development, Decline in the importance of agriculture with economic growth and structural change, Production function, input-input and product-product relationships, Equilibrium of the capitalist farm and peasant family farm, Equilibrium of share-tenant farm and its efficiency.

Unit-II: (12 hours)

Nature and Type of Risk and Uncertainty in Agriculture, Methods used by farmers and Government policies for reducing risk and uncertainty, Nature of supply and demand for agricultural products and structure of agricultural markets, Instability of agricultural prices; need and objectives of agricultural price policy, Schultzian theory and role of technological change in modernization of traditional agriculture.

Unit-III: (12 hours)

Natural Resource Base of Indian Agriculture, Agrarian Structure in India, Agricultural growth in India since 1950-51, Capital Formation in Indian Agriculture, Agricultural Inputs (Seeds, Fertilisers, Irrigation), land reforms in India, Progress of Green revolution in India and its impact on production, rural employment and income distribution.

Unit-IV: (12 hours)

Nature of return to scale and farm size productivity relationship in Indian agriculture, Terms of trade of agricultural sector in India since independence, Agricultural Price Policy in India, WTO & Indian Agriculture, and Trends in Agricultural Trade in the context of the reforms.

Unit-V:

(12 hours)

Agricultural Credit in India: Sources, problems and government policies since independence, Recent initiatives in improving access to credit in agriculture, Liberalization and Indian Agriculture, Contract Farming, Farmer Distress and Suicide.

Prescribed Text Books

1. Heady, E. O. (1952) *Economics of Agricultural Production and Resource Use*, Prentice-Hall of India Pvt. Ltd, New Delhi.
2. Schultz, T. W. (1969), *Transforming Traditional Agriculture*, Lyall Book Depot, Ludhiana.
3. Himmat Singh (2001), *Green Revolution Reconsidered*, Oxford University Press, New Delhi
4. R. Cohen (1968), *The Economics of Agriculture*, Butler & Tanner Limited, Frome and London, London
5. Rao, C. H. Hanumantha (2005), *Agriculture, Food Security, Poverty and Environment*, Oxford University Press, New Delhi
6. L. S. Subba Reddy, P. Raghu Ram, T. V. Neelakanta Satry and I Bhavani Devi (2004), *Agricultural Economics*, Oxford IBh Publishing Co. Pvt. Ltd., New Delhi
7. Bhalla, G S & Gurmail Singh (2001), *Indian Agriculture: Four Decades of Development*, Sage Publication, New Delhi
8. Bhalla, G S (2007), *Indian Agriculture since Independence*, National Book Trust, India.
9. Basu, Kausik & Maertens, Annemie (Ed.) (2010), *The Concise Oxford Companion to Economics in India*, Oxford University Press.

Supplementary Readings

1. Sharma, H. R. (1995), *Agrarian Relations in India: Patterns and Implications*, Har-Anand Publication, New Delhi.
2. Bruce F. Johnston and John W Mellor (1962), 'Role Agriculture in Economic Development *American Economic Review*, Vol.51, No. 4, Sept, pp. 566-593

3. Sharma, H. R. (1994), 'Distribution of Landholdings in Rural India, 1953-54 to 1981-82: Implications for Land Reforms', *Economic and Political Weekly*, Vol. XXIV, No. 13, pp. A12-A25.

5. Sharma, H. R. (2010), 'Magnitude, Structure and Determinants of Tenancy in Rural India: A State Level Analysis', *Indian Journal of Agricultural Economics*, Vol. 65, No. 1, pp. 80-100

ECN: 412 Industrial Economics

Course Code: ECN 412

Course Name: Industrial Economics

Credits: 4

Course Objectives:

- enabling students to understand various concepts of industrial economics;
- enabling students to understand investment and pricing decisions of industries;
- equip students with comprehensive and rigorous understanding of application of economic theories in industry;
- familiarising the students with important issues in industrial development, industrial finance, and industrial policies with special reference to India.

COURSE CONTENTS

(The course content is designed keeping in view the syllabus that is covered by students in course ECN 405, i.e. Microeconomic Theory)

UNIT-I: (10 hours)

Introduction: History and Scope, A framework of Industrial Economics. Industrial Organization, Demand, Costs, Efficiency. The firm and its Boundaries. Games and Strategy.

UNIT-II: (10 hours)

Monopoly and Regulation: Essential Facilities and Access Pricing, Competitive Selection, Oligopoly in Industrial Organization; Collusion and Industrial Organization; Market Structure and Market Power- Theory and Empirical Estimation.

UNIT-III: Investment and Pricing Decisions (15 hours)

Price Discrimination in Industries; Vertical Relations; Product Differentiation; Advertisement, Entry Costs and Market Structure; Strategic Behaviour-Entry and Exit; Research and Development; Networks and Standards.

UNIT-IV: Theories of Industrial Location (10 hours)

Theories of Industrial Location: Webber, Sargent Florence, Industrial Location Quotient. Factors influencing location of industries. Industrial imbalance: causes and measures. Need for balanced regional development of industries.

UNIT-V: Industrial Finance and Policies (15 hours)

Industrial Finance: Meaning, Scope, Importance of Industrial finance, Sources of Industrial Finance: Private, Public and Co-operative Sector; Shares, Debentures, Bonds, Deposits, Loan etc. Role, Nature, volume and types of institutional finance. Foreign capital, Need for foreign capital, Government policy towards foreign capital, Direct Investment, Foreign Institutional Investment, Euro Issues, GDR, ADR, External Commercial Borrowings.

Brief Outline of Industrial Policies of 1948, 1956, 1977. Industrial Policies since 1991. Trends in Industrial Growth since liberalization. Performance and problems of small scale and cottage industries in India. Role of MNCs in India. Review of economic recession in industrially advanced economies and its impact on India.

Prescribed Text Books

Alhuwalia, I.J. (1985), *Industrial Growth in India*, Oxford University Press, New Delhi

Hay, D. A. and D. J. Morris (1991), *Industrial Economics and Organization: Theory and Evidence*, Oxford University Press, New York.

Cabral, Luis M B (2013), *Introduction to Industrial Organization*, PHI Learning Private Limited, Delhi.

Selected articles and materials will be provided in the classroom for reading and discussion.

Supplementary Readings:

Ahluwalia, I. J. (1991), *Productivity and Growth in Indian Manufacturing*, Oxford University Press, New Delhi.

Devine, P.J., N. Lee, R.M. Jones, W. J. Tyson (1976), *An Introduction to Industrial Economics*, George, Allen and Unwin Ltd., London.

ECN: 415 Labour Economics

Course Code: ECN 415

Course Name: Labour Economics

Credits: 4

Course Objectives:

- to familiarize students with different aspects of labour and labour markets
- understand theoretical and well as empirical issues relating labour market, wage theories, employment policies , trade unions and collective bargaining in the globalised world

COURSE CONTENTS

UNIT I (8 Hours)

Nature and characteristics of labour markets; An economic story of the labour market; the actors in the labour market., Labour supply: measurement; workers preferences; budget constraint; the hours of work decision ; labour supply curve; labour supply of women;; retirement , Demand for labour: employment decision in short and long run; long run demand curve for labour; elasticity of substitution; Marshall rules of derived demand, labour market equilibrium.

UNIT II (15 Hours)

Compensating wage differentials: market for risky jobs; hedonic wage function; compensating differentials and job amenities, Human capital: education in labour market; present value method; estimating the rate of return to schooling; schooling as a signal; on job training; , Wage structure: earning distribution; eage inequality

UNIT – III (15 Hours)

Labour mobility: geographic migration; internal migration; decision to migrate; job turnover; job match; on job training; policy application, labour market discrimination: race and gender; discrimination coefficient; employer discrimination; employee, customer and statistical discrimination; measuring discrimination; policy application

UNIT -IV

(14 Hours)

Unions and the Labour markets: determination of union membership; monopoly unions; efficient contract; strikes; union wage effects; exit voice hypothesis; Unemployment: frictional and structural unemployment; job search; inter temporal substitution hypothesis; efficiency wages ;implicit contracts; Philip curve.

UNIT - V

(8 Hours)

Employment and unemployment in India: Unemployment: Concept, Types, and Measurement; Analysis of educated unemployment; Employment policy in Five Year Plans and its evaluation;

Prescribed Text Books:

Borjas. J, George.(11th Edition) *Labour Economics*, Irwin McGraw Hill

Ehrenberg, G. Ronald and Smith, S Robert (11th Edition) *Modern Labour Economics Theory and Public Policy* , Pearson , New Delhi

Smith, Stephen. (2nd Edition) *Labour Economics*, Routledge

Supplementary Readings:

Govt. of India: Report of the First and Second National Commission on Labour.

Govt. of India: Latest Annual Report of the Ministry of Labour.

Susan Horon, Ravi Ranbur and Deepak Mazumdar (ed.): *Labour Market in an Era of Adjustment*, Vol. 1, World Bank publication.

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ECN: 416 Environmental Economics

Course Code: ECN 416

Course Name: Environmental Economics

Credits: 4

Course Objectives:

- Familiarize students with basic concepts of environment economics.
- Enable students to understand inter-linkages between economics and environment.
- Enable student understand environmental problems and ways to sustainable development.
- Familiarize students with environmental issues in Indian and global context and its implications.

COURSE CONTENTS

Unit-I (12 hours)

Scope of Environmental Economics:

Economics and Environment: Major Environmental problems, Environmental regulation in USA, UK and Russian Federation, Cost of Environmental Protection; Positive vs. Normative analysis of Environmental problems, Making Societal Choices: Individual preferences regarding Environmental protection, Environment Sustainability, Social Choices and Individual Preferences: Pareto optimality, Voting, Arrow's impossibility theorem.

Unit- II (12 hours)

Environmental Externality:

Welfare and Market, Market failure: Public goods and externalities, Property rights; Benefit-Cost analysis; The Coase Theorem, Economics of Exhaustible resources.

Unit- III (12 hours)

Measuring Value of Environment and Natural Resources

Demand for Environmental Goods, Revealed vs. Stated preferences, Hedonic Price Theory, Contingent Valuation

Unit- IV (12 hours)

Environment Regulation:

Rationale for regulation, Basic regulatory instruments; Pigovian Fees: Single polluters, Multiple pollutes. Regulation with unknown Control Costs; Permits or Fees, Emission Fees or Quality regulation, Hybrid price or quantity regulations; Risk, Uncertainty and pollution control.

Unit- V

(12 hours)

Current status of pollution in India, Review of environmental legislation in India, Environmental issues in global content, Greenhouse gases ozone depletion, Montreal Protocol, Paris agreement.

Text Books

Kolstad, Charles D. (2011), *Intermediate Environmental Economics*, Oxford University Press, New Delhi.

Nick Hanley, Jason F. Shogren and Ben White (2000), *Environmental Economics in Theory and Practice*, Macmillan

Rabindra, N. Bhattacharya (2001), *Environmental Economics: An Indian Perspective*, Oxford University Press, New Delhi.

Supplementary Readings

Charles Perrings (2009), *Ecological Economics*, Sage Publications, New Delhi.

Johansson Per-Olov (1987), *The Economic Theory and Measurement of Environmental Economics*, Cambridge University Press.

William Baumal and Wallace E. Oats (1998), *The Theory of Environmental Policy*, 2nd Edition, Cambridge University Press

Daniel W. Bromley (1996) (Eds.), *Handbook of Environmental Economics*, Blackwell Publishers Ltd.

Hussen, A.H. (2000), *Principles of Environmental Economics*, Routledge.

Fisher, A (1981), *Resource and Environmental Economics*, Cambridge University Press

ECN: 423 International Economics

Course Code: ECN 423

Course Name: International Economics

Credits: 4

Course Objectives:

- familiarize students with basic concepts of international economics
- enable students understand different principles and theories of international trade
- enable students understand the impact of different trade policies and their implications towards economic growth
- enable students analyse issues related to Indian trade both in goods and services

Course Content:

Unit-I (8 Hours)

World trade an overview; Gravity Model; Theories of International Trade–Theories of Absolute Advantage, Comparative Advantage and Opportunity Costs; Heckscher Ohlin Theory of Trade, Factor price equalization. Empirical testing of Heckscher Ohlin Theory; The Standard Trade Model; Factor price equalization theorem and Stolper-Samuelson Theorem; Rybczynski Theorem and Immiserising growth; Causes of emergence and measurement of intra-industry trade.

Unit-II (6Hours)

Monopolistic Competition and Trade; the Economics of Dumping; The Theory of External Economies; External Economies and International Trade; Terms of Trade: Concepts and measurement of terms of trade. The effects of the terms of trade on a nation's welfare

Unit-III (8 Hours)

The Political Economy of Trade Policy; Theory of Tariffs: Effects of tariffs on balance of payments, terms of trade, national income, consumption, output and income distribution; Forms of Economic integration: The Theory of customs union.

Unit-IV (10 Hours)

Concepts and components of balance of payments, disequilibrium in the balance of payments; The process of adjustment in the Balance of Payments under Gold Standard, fixed exchange rate and flexible exchange rate systems; Elasticity and absorption

approaches to balance of payments; Monetary and fiscal measures for adjustment in balance of payments disequilibrium; Monetary approaches to the balance of payments; Foreign trade multiplier with and without foreign repercussions.

Unit-V

(8 Hours)

International Monetary system, 1870 to 1973; Theory of Optimum Currency Area; Functions and achievements of IMF and WTO; Globalization and Anti Globalization

Prescribed Text Books

Paul, R. Krugman & Maurice Obstfeld (2009), *International Economics: Theory and Policy* (8th ed.), Addison-Wesley, Longman, Pearson Education.

Sodersten, B.O. and Geoffrey Reed (3rd ed.) (1999), *International Economics*, The Macmillan Press Ltd. London.

Salvatore, D. (1996), *International Economics*, Prentice Hall, New York

Supplementary Readings

Bhagwati, J. (Ed.) (1981), *International Trade*, Selected Readings, Cambridge, University Press, Massachusetts.

Carbough, R. J. (1999), *International Economics*, International Thompson Publishing, New York.

Chacholiades, M. (1990), *International Trade : Theory and Policy*, McGraw Hill, Kogakusha, Japan

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ECN: 440 Evolution of Indian Economic System

Course Code: ECN 440

Course Name: Evolution of Indian Economic System

Credits: 4

Course Objectives:

- to familiarize students with different aspects of evolution of Indian economic system
- understand different policies, their rationale and implications for economic growth

COURSE CONTENTS

Unit – I (8 Hours)

Capitalism and Underdevelopment of the Indian Economy: British rule and exploitation of India, British rule and India's Underdevelopment. Growth and Structural change 1857-1947: Measuring and explaining change, globalization and pattern of Trade, saving and investment, public finance, balance of payments great depression

Unit – II (15 Hours)

Agriculture: Importance, role, nature and cropping pattern; productivity and production trends; green revolution; agriculture finance and marketing; Contract Farming; Farmer distress and suicides; agriculture subsidies and food security in India. Industry Sector: role and importance, Industrial policy of 1948, 1956, 1977 and 1991; Industrial licensing policy — MRTP Act, FERA and FEMA; small and cottage Industries; micro, small and medium enterprises. Nature, causes and magnitude of poverty, and unemployment and its measurement. Human resources: Demographic dividend, mobility of population, population policy

Unit – III (15 Hours)

Indian money market: components and characteristics; banking sector in India; financial sector reforms. Indian capital market: components and characteristics; SEBI; capital market reforms; Parallel economy and its implications. Monetary and Financial sector reforms in India

Unit – IV

(12 Hours)

International Trade Policies: composition and directions of India's foreign trade; factors determining the balance of payment; Disequilibrium in the balance of payment; Causes, consequences and policy measure; exchange rate policy and the convertibility of Rupee.

Unit – V

(10 Hours)

Planning in India: rationale, objective and evaluation of economic planning; 12th five year plan. Rationale of internal and external reforms; Globalization of Indian economy; W.T.O. and its impact on the different sectors of the economy

Prescribed Text Books:

Kaushik basu (ed.) (2004), *India's Emerging Economy: Performance and Prospects in the 1990s and Beyond*, Oxford University Press, New Delhi

Misra S.K. & V.K.Puri (28th Edition) *Indian Economy* – Himalaya Publication house Mumbai.

Roy. Tirthankar (2011) *The Economic History of India 1857-1947*, Oxford University Press, New Delhi.

Government of India, Economic Survey (Annual), Ministry of Finance, New Delhi

Economic and Political Weekly (Various Issues)

Supplementary Readings:

Ahluwalia, I J (Eds.) (1998), *India's Economic Reforms & Development* (Essays in Honour of Manmohan Singh), Oxford University Press, New Delhi

Jalan B (1992), *The Indian Economy-Problems and Prospects*, Viking, New Delhi Publication, Calcutta.

Rudra Dutt and K.P.M. Sundram (2009), *Indian Economy*, S. Chand, New Delhi.

Dhingra, I. C. (2001), *The Indian Economy : Environment and Policy*, Sultan Chand & Sons, New Delhi.

Rangarajan, C (1998) *Indian Economy: Essays on Money and Finance*, UBS, New Delhi.

Chelliah Raja J. (1996), *Towards Sustainable Growth- Essays in Physical and Financial Sector Reforms in India*, Oxford University Press, New Delhi.

Kaushik basu (ed.) (2004), *India's Emerging Economy: Performance and Prospects in the 1990s and Beyond*, Oxford University Press, New Delhi.

ECN: 445 Basic Terms and Concepts in Economics

Course Code: ECN 445

Course Name: Basic Terms and Concepts in Economics

Credits: 2

Course Objective:

- To enable students understand the commonly used economic basic concepts and terms.

COURSE CONTENTS

Unit I

Microeconomics: (6 hours)

Meaning of Economics; Scarcity and Choice; Utility: Cardinal utility, Ordinal utility, Rationality; Trade-off; Demand; Supply; Equilibrium Price; Elasticity; Consumer surplus; producer surplus; Dead weight loss; Cost: Opportunity Cost; Sunk Costs; Long run; Short run; Fixed and Variable Costs; Production: Returns to scale; Production Possibility frontier; Capital widening, Capital deepening; Technology;; Marginal analysis; Competitive market: Perfect competition, Monopoly, Monopolistic completion, Price discrimination

Unit II

Macroeconomics: (6 hours)

National Accounts: Value added, Gross Domestic Product (GDP), Net Domestic Product (NDP), Gross National Product (GNP), Net National Product (NNP), GDP Per Capita, Disposable Income; Price Index: Consumer Price Index, Producer Price Index, Inflation Rate, GDP Deflator; Meaning of Full Employment in Economics; Economic Growth; Saving, Investment and Capital formation

Unit III (6 hours)

Public Economics and Development Economics:

Market failure; Public goods and market failure, Free rider problem; The Coase theorem; Meaning of Development; Absolute poverty; Relative poverty; Human Development Index

(HDI); Inclusive growth; Planned economy; Market economy; Mixed economy; Liberalization;

Unit IV

(6 hours)

Money and Banking:

Definition of Money; Supply of Money: Basics of money supply, creation of money; Stabilization Policies: Fiscal Policy, Monetary policy.

Reserve Bank of India: Instruments of RBI (bank rate, repo rate, reverse repo rate, open market operation, discount rates, reserve requirement), Targets and goals of RBI; Shares and debentures; Stock market index: SENSEX; Nifty.

Unit V

(6 hours)

Public Finance and International Trade:

Taxation: Proportional tax, Progressive tax, Regressive tax; Laffer curve; Tax Base, Tax buoyancy; Tax elasticity; Tax incidence; Goods and Service tax (GST); Budget: Revenue receipts, Capital receipts, Revenue expenditure, Capital expenditure; Deficit: Budget deficit, revenue deficit, Fiscal deficit, Primary deficit.

Gains from Trade: Absolute Advantage, Comparative Advantage, Balance of payments; Current account deficit; Capital account deficit; Current account convertibility; Capital account convertibility, WTO.

Prescribed Text Books:

Samuelson, P.A. and W.D. Nordhaus (2010). *Economics, 10th Edition*, New Delhi: Tata McGraw-Hill.

Black, John, Nigar Hashimzade, Gareth Myles (eds.) (2012). *Oxford Dictionary of Economics 4th Edition*. New Delhi: Oxford University Press.

Supplementary Reading:

Gupta, Suraj B. (1982). *Monetary Economics- Institutions, Theory and Policy*. New Delhi: S. Chand Publishers.

ECN: 446 Field Work and Report Writing

Course Code: ECN 446

Course Name: Field Work and Report Writing

Credits: 4

Objectives:

- to enable students to raise researchable issues, form objectives and prepare questionnaire for primary survey.
- to equip students with basic skills of data collection and data analysis.
- to develop the analytical and report writing skills of the students.

Division of Marks

Assessment of Student's performance during Data Collection & analysis	25
Mid-Term appraisal of the research work*	25
Evaluation of the Research Report	25
Viva-Voce Examination**	25
Total Marks = 100	<hr/>

* Mid-Term appraisal of the research work shall be done during Mid-Term examinations where students shall be sharing experiences and observations on their field survey.

** Viva-Voce examination shall be taken by an external examiner towards the end of the semester.

The Format of the Final Report

The report shall be written by each student based on data collected from the field through a detailed schedule approved by the course instructors and its analysis as per the objectives of the problem. The following is the proposed format for the field work report.

Chapter-1: Introduction

Nature & Rationale of the proposed Problem

Research issues, Hypothesis and Objectives

Data and Methodology

Sample Selection

Analytical Tools

Chapter-2: Literature Review

Review of the related studies

Gaps/Researchable issues

Chapter-3: Results and Discussions

Chapter-4: Conclusion and Recommendation

Summary of the report

Policy Implications

ECN: 450 Microeconomics I

Course Code: ECN 450

Course Name: Microeconomics I

Credits: 4

Course Objectives:

- equip students with comprehensive and rigorous theoretical concepts and methodology;
- enabling students analyzing the behavior of individuals, firms and markets using general, static and partial equilibrium approach.

COURSE CONTENTS

Unit-I (12 hours)

Scope of micro economics, methodology of economics as a positive science, demand analysis, partial vs. general equilibrium, theory of consumer behaviour, cardinal utility theory, ordinal utility theory, and revealed preference hypothesis, applications of ordinal and revealed preference approaches and measurement of consumer surplus

Unit-II (12 Hours)

Production and cost: Technology and production function, cost minimising equilibrium and choice techniques and scale, expansion path and derivation of long run average cost. Homogeneous production function, sources of various economies and diseconomies of scale. Production cost curves and learning curves. Saucer shaped and L shape long run average cost curves, Saucer shaped average variable cost curves. Relationship between short run and long run cost curves and engineering cost curves.

Unit -III (16 Hours)

Market Structures and Pricing Process: Equilibrium of firm and industry under perfect competition; Monopoly; bilateral monopoly; price discrimination, and Monopolistic competition; Excess capacity and imperfect competition.

Unit-IV

(10 Hours)

Oligopoly: Definition and meaning, Cournot model, Bertrand model, Stackelberg duopoly model, Kinked demand model, Chamberlin model. Collusive oligopoly: Cartel, Price leadership with dominant firm and low cost firm, Barometric price leadership. Bain’s limit price theory. Marginalism versus average cost pricing. Profit maximisation vs Baumol’s Sales maximisation hypothesis.

Unit- V

(10 Hours)

Factor Pricing: The Marginal Productivity Theory of Distribution. The adding up Problem and Euler’s theorem. Modern theory of distribution. Theory of Rent: Ricardian and Modern. Theories of Interest: Classical, Theories of Wages: Wage determination under perfect and imperfect competition; wage determination under trade unionism.

Prescribed Text Books:

Koutsoyiannis, A. (1985), *Modern Microeconomics*, Macmillan, London.

Varian Hal R (1995), *Intermediate Micro Economics: A Modern Approach*, W.W Norton, New York

Pindyck, Robert S. and Rubinfeld, Daniel L. (2009), *Micro Economics (7th Edition)*, Pearson Education, New Delhi.

Supplementary Readings:

Ferguson, C.E. (1968), *Microeconomic Theory*, Cambridge University Press, London.

Stigler, G.J.(1996), *The Theory of Price (4th Edition)*, Premier Hall, New Delhi

Baumol W. J. (1982), *Economic Theory and Operations Analysis, 4th Ed*, Prentice Hall of India, New Delhi.

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ECM: 451 Macroeconomics I

Course Code: ECN 451

Course Name: Macroeconomics I

Credits: 4

Course Objectives:

- Introduce basic concepts on macroeconomics
- Enable students understanding functioning of the macro economy
- Developing critical skills to understand the implications of macroeconomic policies

COURSE CONTENTS

Unit – I (10 Hours)

Evolution of Macroeconomics, Schools in Macroeconomics; Basic models of Macroeconomics; National income: concepts and measurement. Macroeconomic Theories of Consumption: Relative income, Permanent income, Life cycle income hypotheses and Hall Approach. Role of liquidity constraint and Pigou effect and real balance effect on consumption demand

Unit-II (15 Hours)

Macroeconomic Theories of Investment: The Keynesian approach, Accelerator theory, Neo-classical theory of investment, Tobin's Q theory of investment. The Demand for Money: Keynesian approach, Baumol and Tobin's contribution and Friedman's restatement of quantity theory of money. The neutrality of money

Unit-III (15 Hours)

Derivation, properties and shifts in IS and LM curves and simultaneously equilibrium in the goods and money market. Effects of monetary and fiscal policies under different cases in IS and LM framework including derivation of aggregate demand curve. Demand and supply of labour: The Classical and Keynesian views. Keynesian and Classical model of income determination. Wage price flexibility. Expectations and aggregate supply curve. The classical and Keynesian dichotomies and their resolution by Patinkin's real balance effect and through IS-LM model respectively. Monetary, fiscal and Income Policies. Rational expectations hypothesis; Rational Expectations and demand policy and policy ineffectiveness proposition

Unit-IV

(10 Hours)

Inflation; Theories of Inflation: Demand-pull and cost-push inflation; short and long-run Phillips curve analysis; Expectation Augmented Philips curve. Wages, prices and productivity. The Keynesian, the monetarist and the rational expectations analysis

Unit-V

(10 Hours)

Keynesian and monetarist perspectives on monetary, fiscal and income policies. Stabilization policies: Rules vs. Discretion: lagged effects of policies and role of expectations. Crowding out effect and government budget constraint. Rational expectations and effectiveness of stabilization policies.

Prescribed Text Books:

Branson, W.H., (2005), *Macro-Economic Theory and Policy*, East-West Press Private Limited, New Delhi.

Dornbusch, R. and S. Fischer (2005) *Macroeconomics*, 4th Edition, McGraw-hill Education Private limited, New Delhi.

Blanchard, Oliver (2007), *Macroeconomics*, Pearson Education, New Delhi.

Shapiro, Edward (1984), *Macroeconomic Analysis*, Galgotia Publication, New Delhi

Supplementary Readings:

Errol D Souza (2012), *Macroeconomics*, Pearson, New Delhi, New York.

Rakshit, M. (1998), *Studies in Macroeconomics in Developing Countries*, Oxford University Press, New Delhi

Andrew B. Abel, Ben S Bernake and Dean Croushore(2011), *Macroeconomics*, Indian Edition, Pearson.New Delhi, New York

Richard T. Froyen (2012), *Macroeconomics: Theories and Policies*, Pearson.

ECN: 452 Econometrics I

Course Code: ECN 452

Course Name: Econometrics I

Credits: 4

Course objectives:

- to familiarize students with the econometrics theory;
- to enable students to understand applications of basic econometric methods.

COURSE CONTENTS

UNIT-I (15 Hours)

Introduction: Meaning and rationale of Econometric as a separate discipline, Methodology, Types of Econometrics, Nature and Sources of Data used in Econometric Analysis. Functional Forms of Regression Models. Estimation of the Two Variable and Multiple Regression Models with the Method of Ordinary Least Squares (OLS); BLUE Properties and Testing of Hypothesis, Maximum Likelihood Estimation (MLE).

UNIT-II (10 Hours)

Nature, Consequences, Detection & Remedial Measures for the problems of: Multicollinearity, Heteroscedasticity and Autocorrelation.

UNIT-III (10 Hours)

Specification Errors, Tests of Specification and Misspecification, Errors of Measurement, Encompassing. Models and Criteria for Model Selection. Dummy Variables: Introduction and Uses [as independent variables].

UNIT-IV (15 Hours)

Distributed Lag and Autoregressive Models: Introduction and Nature of Distributed Lag (DL) & Auto Regressive (AR) Model. Koyck Approach for Estimation of DL & AR Models Rationalization of Koyck Approach by Adaptive Expectation and Partial Adjustment Hypothesis; Almon's Polynomial Approach

UNIT-V (10 Hours)

Estimation of Regression Models using Standard Statistical/Econometric Packages [SPSS/E-View/STATA/Gretl/R]*. Interpretation of Estimates and Hypothesis Testing. Testing for and redressal of Multicollinearity, Heteroscedasticity, Autocorrelation using Computer Techniques.

* Note: Choice of the software shall be based on availability.

Prescribed Text Books:

Dougherty, Christopher (2011) *Introduction to Econometrics 4th Edition*. New York: Oxford University Press.

Koutsoyiannis, A. (1977). *Theory of Econometrics*. Macmillan Publishers

Wooldridge, Jeffrey M. (2010) *Econometric Analysis of Cross Section and Panel Data 2nd Edition*. MIT Press.

Greene, W.H. (2003), *Econometric Analysis*, fifth edition, Pearson Education Inc.

Supplementary Readings:

Goldberger, A. S. (1998). *Introductory Econometrics*. Cambridge: Harvard University Press.

Hill, R. Carter, William E. Griffiths and Guay C. Lim (2011) *Principles of Econometrics 4th Edition*. Wiley.

Hsiao, Cheng (2002). *Analysis of Panel Data*. Cambridge University Press.

Mukherjee, Chandan, Howard White and Marc Wuyts (1998) *Econometrics and Data Analysis for Developing Countries*. New York: Routledge.

Gujarati, Damodar N. (2002). *Basic Econometrics 4th Edition*. McGraw Hill

Maddala, G. S. (2005). *Introduction to Econometrics*. New Delhi: Wiley India Pvt. Ltd.

ECN: 453 Development Economics

Course Code: ECN 453

Course Name: Development Economics

Credits: 4

Course Objectives:

- to familiarize students with basic concepts of growth and development.
- to understand different strategies and models of economic growth & development.
- to understand various issues related to development.

COURSE CONTENTS

Unit – I (10 Hours)

The Concept Economic Development, The Development Imperative, Measuring Economic Growth & Development, Historical Perspective of Development, The Roots of Development Theory

Unit – II (15 Hours)

Classical Theories (Adam Smith, Malthus, Ricardo, Marx), Neoclassical model of Solow and Swan

Unit – III (12 Hours)

Endogenous Growth Theories and New Strategies for Development, Theory of Big-Push, Balanced and Unbalanced Growth, Growth with unlimited labor supplies, Stages of Growth Theory

Unit – IV (13 Hours)

Initial Structural Transformation and Industrialization Process, Agriculture and Development

Unit – V (10 Hours)

Population, Education, and Human Capital; Technology and Development; The International Monetary Fund, The World Bank, and Foreign Aid

Prescribed Text Books

Barro, Robert J. and Martin, Xavier Sala I (2009). *Economic Growth*, 2nd Edition, PHI Learning Private Ltd., New Delhi.

Chenery Hollis and Srinivasan, T.N. (1988). *Handbook of Development Economics (eds) Volume 1*, North Holland Publications.

Cypher, James M. and Dietz, James L (2009). *The Process of Economic Development*, 3rd Edition, Routledge, Oxon.

Supplementary Reading:

Basu, Kausik (1998), *Analytical Development Economics*, Oxford India Paperbacks, New Delhi.

Ghatak, Subrata (2003). *Introduction to Development Economics*, 4th Edition, Routledge Taylor & Francis Group.

Higgins, B. (1966), *Economic Development*, Central Book Depot, Allahabad.

Journal of Development Economics.

Sen, Amartya (1999), *Development vs. Freedom*, Oxford University Press, London.

Thirwall, A. P. (2006). *Growth and Development with Special Reference to Developing Economies*, 8th Edition, Palgrave Macmillan, New York.

Todaro, M. P. and Smith, S. C. (2003). *Economic Development*, Pearson Education Limited, New Delhi.

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ECN: 454 Economic Analysis using Statistical Packages

Course Code: ECN 454

Course Name: Economic Analysis using Statistical Packages

Credit: 2

Course Objectives:

The course shall help the students to:

- understand the basics structure of statistical package.
- handle data sets and analyze it with the help of statistical package.
- apply the understanding of statistical techniques learned in previous courses to use the statistical package.

COURSE CONTENTS

Unit-1: (6 hours)

Basics of Statistical Package, Qualitative and Quantitative Data, Time Series Data, Data Entry, Importing the data, Labelling Data, Defining Variable Properties, Merging Data Sets.

Unit -2: (4 hours)

Computing Variables, Recoding Variables, Missing Values, Splitting Files, Selecting Cases, Assigning Weight, Sorting Cases.

Unit -3: (6 hours)

Graphical Analysis: Histograms, Scatter Plot, Box-Plot, Line Charts, Pie Charts Descriptive Analysis: Frequencies, Cross Tabulation, Measures of Central Tendency and Dispersion

Unit -4: (8 hours)

Hypothesis Testing: t-test, Chi Square test, ANOVA; Correlation; Regression: Linear Regression, Curve Estimation, Non-Linear Regression, Logistic Regression, Probit Analysis, Tests for Multicollinearity and heteroscedasticity; Non-linear Regression

Unit -5: (6 hours)

Time Series Regression, Autocorrelation, Detection of Unit Root, Correlogram, Augmented Dickey-Fuller Test

The Prescribed Text Book

The Text book shall be prescribed based on the software available for the course. However the students are advised to visit following website for useful material on some of the widely used Statistical Packages.

<http://www.ats.ucla.edu/stat/>

ECN: 455 Research Methodology for Social Sciences

Course Code: ECN 455

Course Name: Research Methodology for Social Sciences

Credits: 4

Course Objectives:

The course shall help the students to:

- develop a theoretical understanding of research methodology
- acquire the skills for social science research
- acquire the skills for data analysis and research writing

COURSE CONTENT

Unit-I (10 Hours)

Science and Social Research (Introduction, Foundations of Social Science, Some Dialectics of Social Research; Scientific Research (Characteristics, Types, and Methods); Concepts, Constructs, Variables, and Types of Measurement Scale

Unit-II (15 Hours)

Formulation of Research Problem (Reviewing Literature, Identification of Research Gap, Research Problem); Hypothesis (Types, Characteristics, Sources, Functions, Testing, and Criticisms); Logic of Inquiry

Unit-III (15 Hours)

Selection of Research Topic (Sources, Focus, Operationalizing Concepts, and Formulating Research Questions); Research Design (Meaning, Goals, Phases, and Types); Research Proposal; Sampling (Meaning, Purpose, and Types)

Unit-IV (10 Hours)

Techniques of Data Collection (Questionnaire, Interview Schedule, Interview, Observation, Case Study, Content Analysis, and Projective Techniques)

Unit-V

(10 Hours)

Data Processing; Tabulation; Diagrammatic Representation and Analysis; Measurement and Scaling Techniques; Theory Building (Models, Paradigms and Theories); Statistical Techniques

Prescribed Text Books:

Babbie, Earl (2014). *The Practice of Social Research, 13th Edition*. Rawat Publications, Jaipur.

Ahuja, Ram (2001). *Research Methods*, Rawat Publications, Jaipur.

Kumar, Ranjit (2014). *Research Methodology: Step-by-Step Guide for Beginners*. Sage Publication India Pvt Ltd.

Supplementary Readings:

Neuman, Lawrence W. (2006) *Social Research Methods: Quantitative and Qualitative Approaches, Sixth edition*. New Delhi: Pearson Education.

Field, Andy (2014). *Discovering Statistics Using IBM SPSS Statistics, 4th Editions*. Sage Publications India Pvt Ltd, New Delhi.

ECN: 456 Basic Statistical and Econometric Techniques

Course Code: ECN 456

Course Name: Basic Statistical and Econometric Techniques

Credits: 2

Course objectives:

- to familiarize students with basic statistical and econometric methods;
- to enable students to apply statistical and econometric methods in data analysis.

COURSE CONTENTS

Unit- I (06 hours)

Graphs: frequency table, histogram, bar graph, line graph, scatter plot; Central tendency: Mean, Median, Mode; Measures of Dispersion: Range, Interquartile deviations (IQD), Mean deviation, standard deviation, Coefficient of variation (CV).

Unit-II (06hours)

Correlation: Simple correlation, Rank correlation

Unit- III (06hours)

Regression analysis: Two-variable regression, Test of significance, Goodness of fit.

Unit IV (06hours)

Probability Distributions: Probability distribution for discrete and continuous variables, Normal distribution; Central limit theorem; Inference using normal distribution.

Unit- V (06hours)

Sampling: Sample and population, Random sampling, sampling distribution and standard error; Tests of significance: Hypothesis testing, Z-test, t-test, Chi square test.

Prescribed Text Books:

Hamilton, Lawrence C. (1990). *Modern Data Analysis: A First Course in Applied Statistics*. Belmont, CA: Brooks/Cole Publication.

Nagar, A. L. and R. K. Das. (1976). *Basic Statistics, 2nd edition*. New Delhi: Oxford University Press.

Supplementary Readings

Freedman, David, Robert Pisani and Roger Purves. (2009). *Statistics, 4th edition*. New York: W. W. Norton & Company.

Koutsoyiannis, A. (1977). *Theory of Econometrics*. New York: Palgrave.

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ECN: 457 Economics of Values and Ethics

Course Code: ECN 457

Course Name: Economics of Values and Ethics

Credits: 2

Course Objectives:

- enable students to understand the debate on ethics and markets
- familiarize students with literature on impact of corporate social responsibility expenditure on success of business.
- familiarize students with corporate social responsibility trends in India

COURSE CONTENTS

Unit I

Morality of Market Mechanism

Unit II

Trust and Economic Growth

Unit III

The impact of ethics of the firm and Corporate Social Responsibility (CSR) activities on profitability, job satisfaction and productivity of labour, and innovation

Unit IV

Ethics, Trust and Alliances in Business

Unit V

CSR in Indian: Recent Trends, Some successful examples and Legal Provisions

Suggested Articles

Rafael LaPorta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W Vishny (1997) Trust in Large Organizations, American Economic Review Papers and Proceedings, 87(2): 333-338 <http://scholar.harvard.edu/shleifer/publications/trust-large-organizations>

European Commission (2008) European Competitiveness Report 2008, The European Commission, p. 106-121
<http://ec.europa.eu/DocsRoom/documents/3399/attachments/1/translations/en/renditions/native>

Friedman, Milton, (1970) The Social Responsibility of Business is to Increase its Profits, *The New York Times Magazine*, September 13.

Argandoña, Antonio (1999) Sharing out in Alliances: Trust and Ethics, *Journal of Business Ethics*, 21(2/3): 217-228.

Khanna, Tarun and Jan W. Rivkin (2001) Estimating the Performance Effects of Business Groups in Emerging Markets, *Strategic Management Journal*, 22(1): 45-74.

Sen, Amartya (1985) The Moral Standing of the Market, *Social Philosophy and Policy*, 2(2), 1-19.

Storr, Virgil Henry (2009) Why the Market?: Markets as Social and Moral Spaces *Journal of Markets & Morality*, 12(2): 277-296

Joseph, Amita V. (2009) Successful Examples of Corporate Social Responsibility, *Indian Journal of Industrial Relations*, 44(3): 402-409.

Bansal, Sangeeta and Shachi Rai (2014) An Analysis of Corporate Social Responsibility Expenditure in India, 49 (50) (Web Exclusives) <http://www.epw.in/node/130387/pdf>

Maira, Arun, (2013) India's 2% CSR Law: The First Country to Go Backwards, *Economic and Political Weekly*, 46 (38): 23-25.

Venkatesan, Rashmi (2013) Ordering Corporate Responsibility: A Misplaced Faith?, *Economic and Political Weekly*, 46(38): 26-28.

Ministry of Law and Justice (2013) The Companies Act 2013, Ministry of Law and Justice, Government of India, New Delhi

Hausman, Dan. (1989) Are markets morally free zones?, *Philosophy and Public Affairs*, 18(4), 317-333.

Clark, J. R. and Dwight R. Lee (2011) Markets and Morality, *Cato Journal*, 31(1): 1-25.

Hill, Peter J. and John Lunn (2007) Markets and Morality: Things Ethicists Should Consider When Evaluating Market Exchange, *Journal of Religious Ethics*, 35(4): 627-653.

ECN: 502 History of Economic Thought

Course Code: ECN 502

Course Name: History of Economic Thought

Credits: 4

Course Objectives:

- to enable students to understand the development of economic theory.
- to develop the skills of abstract thinking among students.

COURSE CONTENTS

Unit – I (8 Hours)

Pre Adamite Economics: Mercantilism, Precursors of Classical thought, Physiocracy

Unit-II (16 Hours)

Adam Smith: Measurement and Cause of Value, Division of Labor, Cost of Production, Wages, Rent, Invisible Hand.

David Ricardo: Diminishing Returns and Theory of Rent, Theory of Value, The Fundamental Theorem of Distribution, Comparative advantage.

Say's Law and Classical Monetary Theory: Say's Law of Market,

Malthus: Malthus's Theory of Population; Malthus's Theory of Gluts.

John Stuart Mill: Value theory, International trade, The wage fund

Unit-III (12 Hours)

Marxian Economics: Value, Surplus Value, Economic Surplus, Historical Transformation, The Laws of Motion of Capitalism, The Law of Falling Rate of Profits, The Reproduction Schema.

Unit-IV (12 Hours)

The Marginal Revolution: The Emergence of Marginal Utility, Jevons, Menger and Walras; Cournot on Profit Maximization, Duopoly Theory.

Marshallian Economics: Utility Theory, Welfare Economics, Cost and Supply

ECN: 508 Financial & Capital Markets

Course Code: ECN 508

Course Name: Financial & Capital Markets

Credits: 4

Course Objectives:

- making students understand Indian financial system
- helping students to have a grasp on both theoretical and practical aspects of Indian capital market
- making students learn the regulatory aspects of Indian capital market

COURSE CONTENTS

Unit – I (13 Hours)

Introduction to Indian Financial System, Constituents of Financial System, Financial Assets, Financial Intermediaries, Financial Markets, Classification of Financial Markets, Role and Functions of Capital Market, Resource Allocation through Capital Market, Legal Framework of the Securities Market in India, Regulating and Investigation agencies, Regulatory Framework Governing the Stock Exchanges, Clearing Corporations, and Depositories in India, Financial Intermediaries Framework-SEBI Regulations on Merchant Bankers, Registrar to an Issue and Share Transfer Agents, Underwriters, Bankers to an Issue, Debenture Trustees, Stock Brokers and Sub Brokers, Portfolio Managers, Custodian of Securities, Investment Advisers, Credit Rating Agencies, and Depositories and Participant

Unit – II (10 Hours)

Introduction to Primary Market, Types of Issue, Offer of Sale, IPOs/FPOs, SEBI (ICDR) Regulations, 2009, Basis of Allotment, Book Building Process, Green Shoe Option Facility, Pre-Issue Activities, Rights Issue, Bonus Issue, Preferential Issue, Qualified Institutional Placement, Institutional Placement Programme, Listing Agreement

Unit – III (12 Hours)

Introduction to Secondary Market, Corporate Actions, Continuous Listing, Material Events under Listing Agreement, Price Sensitive Information, Submission of Interim and Annual

Financial Results under Listing Agreement, Disclosures under Listing Agreement, Corporate Governance, Regulatory Framework of Corporate Governance in India, Clause 49, Arbitration Mechanism (AM), AM in Stock Exchanges, Margining, Trading of Securities, Settlement System, Clearing and Settlement, Trade Guarantee Fund, Trading Software, Stock Market Indices, Sensex, CNX Nifty, Investible Weight Factors (IWFs)

Unit – IV

(15 Hours)

Capital Market Investment Institutions- National Level Institutions, All India Development Banks, Specialized Financial Institutions, Investment Institutions, State Level Institutions, Qualified Institutional Buyers, Private Equity, Types of Private Equity, Venture Capital, Stages of Investment Financing, Angel Funds, Pension Funds, Foreign Portfolio Investor, Mutual Fund, Alternative Investment Fund, Hedge Funds, Capital Market Instruments- Equity Shares, Preference Shares, Debentures, Bonds, FCCBs, ADRs, GDRs, IDRs, Derivatives, Futures, Options, ETFs

Unit – V

(10 Hours)

Resource Mobilization through International Markets- ADRs, GDRs, Foreign Currency Convertible Bonds and Ordinary Shares, London Stock Exchange, Listing on Main Market, Listing on Professional Security Market, Listing on AIM, Luxembourg Stock Exchange, NASDAQ, NYSE

Prescribed Text Book

The Institute of Companies Secretaries of India (2014), *Capital, Commodity, and Money Market*.

Supplementary Readings:

M.Y. Khan, M.Y. (2010) *Indian Financial Systems*; Tata McGraw Hill, New Delhi.

Gurusamy, S (2009) *Capital Markets*, Tata McGraw Hill Education Private Limited, New Delhi.

ECN: 509 International Financial Institutions

Course Code: ECN 509

Course Name: International Financial Institutions

Credits: 4

Course Objectives:

- familiarize students with activities and roles of financial institutions in the international financial system
- financial system
- familiarize students with knowledge about current financial processes and role of international institutions in current global processes

COURSE CONTENTS

Unit-I: (8 Hours)

Introduction to International Financial Markets: Exchange rate and various theories of determining exchange rate. Introduction to International Financial Institutions: role and importance of International Financial Institutions; Economic organizations before the foundation of the United Nations; League of Nations; Bretton Woods conference and birth of International Institutions, rise and fall of Bretton Woods Institutions; International Monetary system

Unit-II (6 Hours)

International Monetary Fund: Objectives and functions, membership and subscription; Surveillance and lending facilities; SDRs; international monetary system; Challenges and controversies surrounding IMF. World Bank: Objectives and functions; IDA (International Development Association), IFC (International Financial Corporation), MIGA (Multilateral Investment Guarantee Agency)

Unit-III (8 Hours)

World Trade Organization: Havana charter; principles and working of GATT; role and function of WTO; decisions making and membership; Millennium developments goals;

Singapore, Geneva, Seattle, Doha and Cancun ministerial conferences; WTO and developing countries

Unit-IV

(10 Hours)

Multilateral Institutions: International Bank for Reconstruction and Development, International Finance Corporation and Bank for International Settlements. Regional development banks: Asian development Bank, African Development Bank, Council of European Development Bank. Economic organizations in developed countries: OECD (Organization for Economic Cooperation and Development), Paris Club, London Club

Unit-V

(8 Hours)

Global financial crisis in 2007, new global rules and regulations Volcker Rule, Dodd Frank Act, Basel III Accord. Contemporary issues in international finance such as global imbalances, the euro zone crisis, the future of PIIGS economies, and the growth of BRICS economies

Prescribed Text Books:

Kevin, S.(2013) *Fundamentals of International Financial Management* – PHI Learning Private Limited, Delhi.

Narlikar, Amrita. (2005) *The World Trade Organization: A Very Short Introduction*, Oxford University Press. New Delhi

Peet, Richard (2009) *Unholy Trinity: the IMF, World Bank and WTO*, Zed Books Ltd, London

Supplementary Reading

Siddaiah, T (2016) , *International Financial Management An Analytical Framework* , Pearson India

ECN: 520 Microeconomics II

Course Code: ECN 520

Course Name: Microeconomics II

Credits: 4

Course Objectives:

- familiarize students with the advanced topics in microeconomics.
- exposing students to general equilibrium and welfare economics.
- introducing game theory to students

COURSE CONTENTS

Unit – I (12 Hours)

Games, Rules of the Game, Extensive Forms and Strategic or Normal Form of Game, Morgenstern Utility Function, Some Examples, Strategic Form Games and its Case Study on Art Auction, Dominance Strategy Solution, Dominance Solvability

Unit-II (15 Hours)

The Concept and Examples of Nash Equilibrium, Cournot Model and Its Nash Equilibrium, Variants of Nash Equilibrium and Stackelberg Model, The Commons Problem, Definition and Examples of Mixed Strategy, Mixed Strategy and Pure Strategy, Mixed Strategy and Bluffing, Mixed Strategy and Nash Equilibrium, Application of Mixed Strategies (Natural Monopoly and Bankruptcy Law), Zero-Sum Games

Unit-III (10 Hours)

Introduction to Welfare Economics, Pigovian Approach, Pareto Optimal Conditions, Two Fundamental Welfare Theorems, Social Welfare Function, Welfare Criteria-Kaldor, Hicks, Scitovsky, Bergson-Samuelson, Gorman's Intransitivity Problem

Unit- IV (13 Hours)

Factors for Sub-Optimal Welfare- Market Failure, Imperfect Competition, Natural Monopoly, Imperfect Knowledge, Uncertainty, Non-existent and Incomplete Market,

Externality and its Types, Coase Theorem, Scitovsky Contour for Public Goods, Inefficient Provision for Public Goods, Lindahl Formula, Theory of Second Best, Arrow's Impossibility Theorem, Rawl's Theory of Justice, Equity-Efficiency Trade-Off

Unit-V

(10 Hours)

Pure Exchange Model, Walrasian Equilibrium, Brouwer's Fixed Point Theorem, Mechanism for Attaining Walrasian Equilibrium-Stability and Uniqueness, Competitive Equilibrium and Pareto Efficiency

Prescribed Text Book

Dutta, Prajit K. (1999) *Strategies and Games: Theory and Practice*, MIT Press, Cambridge.

Supplementary Readings:

1. Mas-colell, Andreu, Michael D. Whinston, Jerry R. Green (2006) *Microeconomic Theory*, Oxford University Press, New Delhi.
2. Varian Hal R (2009), *Microeconomic Analysis, 3rd edition*, W.W. Norton, NewYork
3. Materials Provided by the teacher on Welfare Economics and General Equilibrium

ECN: 521 Macroeconomics II

Course Code: ECN 521

Course Name: Macroeconomics II

Credits: 4

Course Objectives:

Introduce basic concepts on macroeconomics

Enable students understanding functioning of the macro economy

Developing critical skills to understand the implications of macroeconomic policies

Course Content

Unit – I (10 Hours)

Business Cycles I:- Samuelson’s Model, Hicks and Goodwin's Model, Austrian Business Cycle Theory.

Unit-II (10 Hours)

Business Cycles II:- Monetarists Interpretation of Business Cycles; Real Business Cycle Theory: A Baseline Real Business Cycle Model, Household Behavior, A Special Case of the Model, Solving the Model in the General Case, Empirical Applications of Real Business Cycle Model

Unit-III (12 Hours)

Nominal Rigidity:- Exogenous Nominal Rigidity: A Baseline Case: Fixed Prices; Price and Wage Rigidity; Departures from Perfect Competition in the Goods and Labour Markets; Usable Model with Exogenous Nominal Rigidity

Unit-IV (15 Hours)

Microeconomic Foundations of Incomplete Nominal Adjustment: Model of Imperfect Competition and Price Setting; Real Rigidity; Coordination Failure Models and Real Non-Walrasian Theories; Taylor model; Lucas Imperfect Information Model, Policy ineffective theorem; Caplin-Spulber Model.

Dynamic Stochastic General-Equilibrium Models of Fluctuations:- Dynamic New Keynesian Models; Predetermined Prices: The Fischer Model; Fixed Prices: The Taylor Model; The Calvo Model and the New Keynesian Phillips Curve; State-Dependent Pricing; Models of Staggered Price Adjustment with Inflation Inertia.

Prescribed Text Books:

Romer, David. 2011. *Advanced Macroeconomics, 4th edition*, McGraw-Hill Higher Education.

Knoop, Todd A. 2010. *Recessions and Depressions: Understanding Business Cycles, 2nd edition*, Praeger, Westport, CT

Hayek, F. A. 1933. *Monetary Theory and the Trade Cycle*. Sentry Press, New York. [URL: <https://mises.org/library/monetary-theory-and-trade-cycle-0>]

Glasner David (ed.), 1997. *Business Cycle and Depressions: An Encyclopedia*, Garland Publishing, New York.

Blanchard, Oliver Jean, Fischer Stanley. 1989. *Lectures on Macroeconomics*, MIT Press, London

Supplementary Readings

Alvarez, F., and R. Shimer. 2011. "Search and Rest Unemployment." *Econometrica*, 79(1) p. 75-122.

Bernanke, B., and M. Gertler, 1989, "Agency costs, net worth, and business fluctuations." *American Economic Review*, 79, p. 14-31.

Burnside, C., Eichenbaum, M., and S. Rebelo, 1993. "Labor Hoarding and the Business Cycle." *Journal of Political Economy*, 101, p. 245-273.

Faig, M., and Z. Li, 2009. "The Welfare Costs of Expected and Unexpected Inflation." *Journal of Monetary Economics*, 56(7), p. 1004-1013.

Greenwald, B. and J. Stiglitz, 1993. "Financial market imperfections and business cycles." *Quarterly Journal of Economics*, 108, p. 77-114.

Greenwood, J., Hercowitz, Z. and G. W. Huffman, 1988. "Investment, Capacity Utilization, and the Real Business Cycle." *American Economic Review*, 78: 402-417.

Hall, R. 2005. "Employment Fluctuations with Equilibrium Wage Stickiness." *American Economic Review*, 95(1) p. 50-65.

Hansen, G. D., 1985. "Indivisible Labor and the Business Cycle." *Journal of Monetary Economics*, 16, p. 309-327.

Kiyotaki, Nobuhiro. and John H. Moore, 1997. "Credit cycles." *Journal of Political Economy*, 105, p. 211-248.

Kydland, F. E. and E. C. Prescott, 1982. "Time to Build and Aggregate Fluctuations." *Econometrica*, 50, p. 1345-1370.

Lagos Ricardo, and Randall Wright, 2005. "A Unified Framework for Monetary Theory and Policy Analysis," *Journal of Political Economy*, 113(3): 463-484.

Ljungqvist, Lars and Thomas J. Sargent, 2004. *Recursive Macroeconomic Theory*, MIT

Long, J. B. and C. I. Plosser, 1983. "Real Business Cycles." *Journal of Political Economy*, 91, p. 39-69.

Lucas, R. E. Jr., 1972. "Expectations and the Neutrality of Money." *Journal of Economic Theory*, 4, p. 103-124.

Lucas, R. E. Jr., 1973. "Some International Evidence on Output-Inflation Tradeoffs." *American Economic Review*, 63, p. 326-334.

Lucas, R.E., 1978. "Asset prices in an exchange economy." *Econometrica*, 46, p. 1429-1445.

Mehra, R. and E.C. Prescott, 1985. "The equity premium: a puzzle," *Journal of Monetary Economics*, 15, p. 145-161

Shimer, R. 2012. "Reassessing the Ins and Outs of Unemployment." *Review of Economic Dynamics* 15(2) p. 127-48.

Stockey, Nancy und Lucas, Robert E., with E. Prescott, 1989. *Recursive Methods in Economic Dynamics*, Harvard University Press, Cambridge MA, London.

ECN: 522 Econometrics II

Course Code: ECN 522

Course Name: Econometrics II

Credits 4

Course objectives:

- to familiarize students with the econometrics theory;
- to enable students to understand applications of econometric methods.

Course Content

UNIT-I (10 Hours)

Qualitative Response Regression Models: Nature of Qualitative Response Regression Models. Description and Estimation of Linear Probability, Logit, Probit and Tobit Models

UNIT-II (15 Hours)

Simultaneous Equations Models (SEM): Nature of SEM's Simultaneous Equation Bias, Identifications Problem. Rank and Order Conditions. Testing Identification of Economic Models. Estimation of SEM'S : Instrumental Variable (IV) Method, ILS, 2SLS Methods.

UNIT-III (15 Hours)

Time Series Analysis: Testing Casuality in Economics: Granger Causality

Test. Stationary, Test of Stationary, Spurious Regression, Unit Roots, Dickey-Fuller Test, Cointegration, Engle Granger Test.

Forecasting: AR, MA and ARIMA processes, Box Jenking Methodology.

Vector Auto Regression (VAR) Model, Introduction, Formulation and Estimation. Impulse Response function, Variance Decomposition.

UNIT-IV (10 Hours)

Panel Data Models: Introduction: Advantages and Issues Involved in Utilizing Panel Data.

Simple Panel Data Models: Fixed Effects Models, Random Effects Models. Hausman Test. Dynamic Panel Model: Random, Coefficient Model.

UNIT-V [For assignment only]

(10 Hours)

Estimation and Interpretation of Qualitative response, Simultaneous equation models, Time Series and Panel data models using Standard Statistical/Econometric Packages [SPSS/E-Views/STATA/Gretl].

Prescribed Text Books:

Bhaumik, Sankar Kumar (2015) *Principles of Econometrics: A Modern Approach Using E-Views*, Oxford University Press, New Delhi.

Dougherty, Christopher (2011) *Introduction to Econometrics 4th Edition*. New York: Oxford University Press.

Enders, W. (2013), *Applied Econometric Time Series*, 3rd edition, John Wiley and Sons, New Delhi.

Wooldridge, Jeffrey M. (2010) *Econometric Analysis of Cross Section and Panel Data 2nd Edition*. MIT Press.

Greene, W.H. (2003), *Econometric Analysis*, fifth edition, Pearson Education Inc.

Supplementary Readings:

Hamilton, J. D. (1994), *Time Series Analysis*, Princeton University Press,

Goldberger, A. S. (1998). *Introductory Econometrics*. Cambridge: Harvard University Press.

Hsiao, Cheng (2002). *Analysis of Panel Data*. Cambridge University Press.

Mukherjee, Chandan, Howard White and Marc Wuyts (1998) *Econometrics and Data Analysis for Developing Countries*. New York: Routledge.

Maddala, G. S. (2005). *Introduction to Econometrics*. New Delhi: Wiley India Pvt. Ltd.

ECN: 523 Mathematical Optimization

Course Code: ECN 523

Course Name: Mathematical Optimization

Credits: 4

Course objectives:

- to enable students to understand optimization techniques used in economic analysis;
- to familiarize students with the use of optimization theory as a tool to analyse economic phenomena.

COURSE CONTENTS

Unit- I (10 hours)

Use of Mathematics in Economics; Sets, Numbers and Proofs; Production functions, cost functions and elasticity Functions; One variable Optimization: Necessary and Sufficient conditions, Economic applications: Revenue and Profit Functions.

Unit- II (12 hours)

Quadratic Forms and Definite Matrices: Definiteness of quadratic forms, Linear constraint and bordered matrices; Optimization for Several Variables: Unconstrained optimization; Global Maxima and Concave functions; Economic Application of unconstrained optimization: Profit-maximizing firm, Discriminating monopolist.

Unit- III (16 hours)

Optimization under constraint: First order condition, equality constraint; inequality constraint, mixed constraint, constrained minimization problems, Kuhn-Tucker formulation, Economic Applications: Sales maximization with advertisement; Multiplier, Second Order condition and Constraints qualifications

Unit- IV (12 hours)

Homogenous functions: homogeneous functions in economics, properties of homogenous functions, calculus criterion for homogeneity, Euler's Theorem, Homogenizing a function; Homothetic functions; Concave and Quasi Concave functions: Properties of concave functions, Quasiconcave and Quasiconvex functions.

Unit- V

(10 hours)

Economic Application of Optimization: Utility and Demand, Profit and Cost.

Prescribed Text Books:

Chiang, Alpha C. and Kevin Wainwright (2005) *Fundamental Methods of Mathematical Economics 4th Edition*. New York: McGraw-Hill/Irwin.

Simon, Carl P. and Lawrence E. Blume (2006). *Mathematics for Economists*. New York: W. W. Norton & Company.

Supplementary Readings:

Carter, Michael (2001). *Foundations of Mathematical Economics*. Cambridge: MIT Press.

Franklin, Joel N. (2003). *Methods of Mathematical Economics: Linear and Nonlinear Programming, Fixed-Point Theorems*. Delhi: PHI Learning Private Limited.

Intriligator, Michael D. (2013). *Mathematical Optimization and Economic Theory*. Delhi: PHI Learning Private Limited.

Sundaram, Rangarajan K. (1996). *A First Course in Optimization Theory*. New York: Cambridge University Press.

Sydsaeter, Knut and Peter J. Hammond (1995) *Mathematics for Economic Analysis*. New Delhi: Pearson Education.

Sydsaeter, Knut, Peter J. Hammond, Atle Seierstad and Arne Strom (2008) *Further Mathematics for Economic Analysis 2nd Edition*. Prentice Hall.

Vohra, Rakesh V. (2005). *Advanced Mathematical Economics*. New York: Routledge.

ECN: 527 Financial Structures and Economic Development

Course Code: ECN 527

Course Name: Financial Structures and Economic Development

Credits: 4

Course Objectives:

- familiarize students with basic concepts and indicators of financial structure;
- enabling students to understand analytically the issue related to financial structures and economic development.

COURSE CONTENTS

Unit-1: (8 Hours)

Meaning of Financial Structure; Indicators of Financial Structure; Major Data Sources on Financial Structure

Unit-2: (12 Hours)

Comparison between Bank-based and Market based financial systems

Unit-3: (10 Hours)

Financial Structure and Economic Growth across countries

Unit-4: (10 Hours)

Financial structure and bank profitability; International Evidence on aggregate corporate financing

Unit-5: (20 Hours)

Financial structure changes: Indian experience

Prescribed Textbook:

1. Demirguc-Kunt, Asli and Ross Levine (2001) *Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development*, Singapore: Pearson Education.

Supplementary Reading:

1. Krishnan, K. P. (2011) *Financial development in emerging markets: The Indian experience*, ADBI working paper series, No. 276

ECN: 539 Monetary Economics

Course Code: ECN 539

Course Title: Monetary Economics

Credits: 4

Course Objectives:

- to enabling students to understand different aspects of money and interest rate;
- to help students to know important theories relating to demand for and supply of money;
- to familiarize students with basic functions of monetary authority and enabling students to understand analytically the debates in monetary policy; and
- to give students an introduction to monetary system and financial sector of india

COURSE CONTENT

Unit-I: Introduction and Heritage of Monetary Economics (12 Hours)

Money and its Functions; Definitions of Money; Money and Macroeconomics; Neutrality of Money and Bonds; Origin of Monetary Economics & its Progress; Quantity Equation and its Variants; Quantity Theory; Cash Balance Approach; Wicksell's Pure Credit Economy; Keynes' Contributions; Friedman's Contributions; Friedman vs Keynes; and Money Supply, Output and Employment.

Unit-II: Interest Rates (12 Hours)

Measuring Interest Rates; Real and Nominal Interests; Behaviour of Interest Rates; Determination of Interest Rates and Changes in it; Risk and Term Structure of Interest Rates; Expectations Theory; Segmented Markets Theory; Liquidity Premium and Preferred Habitat Theories.

Unit-III: Supply of Money (12 Hours)

The Money Supply Process- Players in the money supply process, the sources of money supply, control of monetary base, multiple deposit creation, factors that determine money

supply, monetary expansion and the money multiplier, currency drain and deposit multiplier.

Unit-IV: Money and Macroeconomics (12 Hours)

ISLM model; Monetary and Fiscal Policy in the ISLM model; Aggregate Demand and Supply Analysis; Transmission Mechanism of Monetary Policy; Money and Inflation; Rational Expectations

Unit-V: Monetary Policy and Central Banking (12 Hours)

Operative Targets of Monetary Policy; The Central Bank and its Targets and Goals; Choosing among multiple goals; Conflicts among Policy Makers; Independence of Central Bank; Time Consistency of Policies; Commitment and Credibility of Monetary Policy

Prescribes Readings:

Dwivedi, D.N. (2013). *Macroeconomics: Theory and Policy, 3rd Edition*. McGraw Hill Education (India) Private Limited

Friedman, Milton (1970). *The Counter-Revolution in Monetary Theory*. IAE occasional Paper No. 33, Institute of Economic Affairs. Can be Downloaded from http://0055d26.netsolhost.com/friedman/pdfs/other_academia/IEA.1970.pdf

Handa, Jagdish (2009). *Monetary Economics, 2nd Edition*. Routledge, Taylor & Francis Group

Mishkin, Frederic S & Eakins, Stanley G. (2012). *The Economics of Money, Banking and Financial Markets, 7th Edition*. Prentice Hall

Rangarajan, C. (2004). *Selected Essays on Indian Economy, Part II, Volume 1*. Academic Foundation.

Ray, Partha (2013). *Monetary Policy*. Oxford University Press

Supplementary Readings:

Lewis & Muzan (2000): *Monetary Economics*, Oxford University Press.

Journal of Money, Credit, and Banking.

The Economics Times, The Business Line, & Financial Express.

ECN 601: Research Methods & Quantitative Techniques

Course Code	ECN 601
Course Name	Research Methods & Quantitative Techniques
Course Instructor	Dr. Amit Kumar Basantaray
Credit	4

Course objectives

- To equip the students with basic steps of social science research and teach them the skills required to complete a research project.
- To train the students to use various quantitative techniques required in economic research.

Attendance Requirements: Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 per cent
2. End Term Examination: 50 per cent
3. Counselling, Activities and Tutorials (CAT): 25 per cent
 - i. Class Participation: 5 percent
 - ii. Assigned Literature Review: 5 percent
 - iii. Assigned Proposal Preparation: 5 percent
 - iv. Presentation & Defense of Proposal: 10 Per cent

COURSE CONTENTS

Unit-I: (10 Hours)

Basics of Research; Philosophical Foundations of Research; Structure Research Project; Research Ethics; Finding & Reviewing of Literature

Unit-II: (05 Hours)

Research Problem & Research Questions; Concept, Construct, & Variables; Research Design, Theory of Sampling

Unit-III: (05 Hours)

Data and its Measurements; Techniques of Data Collection; Reliability & Validity; Introduction to Data Analysis

Unit-IV: (10 Hours)

Basic Quantitative Techniques-I

Unit-V: (10 Hours)

Basic Quantitative Techniques-II

Prescribed Text Books:

1. Kothari, C.R. and Garg, Gaurav. 2019. *Research Methodology: Methods and Techniques*, New Age International (P) Limited, Delhi
2. Walliman, Nicholas. 2011. *Research Methods: The Basics*, Routledge, Taylor & Francis Group, London and New York.

Supplementary Readings:

1. Ahuja, Ram. 2001. *Research Methods*, Rawat Publications, Jaipur.
2. Babbie, Earl. 1998. *The Practice of Social Research, 8th Edition*, Wadsworth Publishing Company, Albany, New York.
3. Ethridge, Don. 2014. *Research Methodology in Applied Economics, 2nd Edition*, John Wiley & Sons, Hoboken.
4. Hamilton, Lawrence C. 1990. *Modern Data Analysis: A First Course in Applied Statistics*, Brooks/Cole Publication, Belmont.
5. Hamilton, Lawrence C. 2003. *Statistics with STATA, 8th edition*, Brooks/Cole Publication, Boston.
6. Levin, R.I, Rubin, D.S., Siddiqui, M.S., and Rashtogi, S. 2017. *Statistics for Management, 8th Edition*, Pearson India, New Delhi.

ECN 603: Advanced Economic Theory

Course Code: ECN 603

Course Name: Advanced Economic Theory

Teacher:

Credit: 4

Course objectives:

- to familiarize the students with advancements in economic theory.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 percent
2. End Term Examination: 50 percent
3. Counselling, Activities and Tutorials (CAT): 25 percent
 - v. Class Participation: 5 percent
 - vi. Assignment: 10 percent
 - vii. Quiz/Class Test: 10 percent

COURSE CONTENTS

Unit- I **(10 hours)**

The Solow Growth Model

Unit- II **(12 hours)**

Infinite-Horizon and Overlapping-Generations Models: The Ramsey-Cass-Koopmans Model,
The Diamond Model

Unit- III **(10 hours)**

Endogenous Growth; Cross Country Income Differences

Unit- IV

(14 hours)

Exogenous Nominal Rigidity: Exogenous Nominal Rigidity: A Baseline Case: Fixed Prices; Price and Wage Rigidity; Departures from Perfect Competition in the Goods and Labour Markets

Unit- V

(14 hours)

Microeconomic Foundations of Incomplete Nominal Adjustment: Model of Imperfect Competition and Price Setting; Real Rigidity; Coordination Failure Models and Real Non-Walrasian Theories; Taylor model; Lucas Imperfect Information Model, Policy ineffective theorem.

Prescribed Text Books:

1. Romer, David. 2011. *Advanced Macroeconomics, 4th edition*, McGraw-Hill Higher Education.
2. Blanchard, Olivier Jean, Fischer Stanley. 1989. *Lectures on Macroeconomics*, MIT Press, London

Supplementary Readings

1. Alvarez, F., and R. Shimer. 2011. "Search and Rest Unemployment." *Econometrica*, 79(1) p. 75–122.
2. Bernanke, B., and M. Gertler, 1989, "Agency costs, net worth, and business fluctuations." *American Economic Review*, 79, p. 14-31.
3. Burnside, C., Eichenbaum, M., and S. Rebelo, 1993. "Labor Hoarding and the Business Cycle." *Journal of Political Economy*, 101, p. 245-273.
4. Faig, M., and Z. Li, 2009. "The Welfare Costs of Expected and Unexpected Inflation." *Journal of Monetary Economics*, 56(7), p. 1004-1013.
5. Greenwald, B. and J. Stiglitz, 1993. "Financial market imperfections and business cycles." *Quarterly Journal of Economics*, 108, p. 77-114.
6. Greenwood, J., Hercowitz, Z. and G. W. Huffman, 1988. "Investment, Capacity Utilization, and the Real Business Cycle." *American Economic Review*, 78: 402-417.
7. Hall, R. 2005. "Employment Fluctuations with Equilibrium Wage Stickiness." *American Economic Review*, 95(1) p. 50–65.

8. Hansen, G. D., 1985. "Indivisible Labor and the Business Cycle." *Journal of Monetary Economics*, 16, p. 309-327.
9. Kiyotaki, Nobuhiro. and John H. Moore, 1997. "Credit cycles." *Journal of Political Economy*, 105, p. 211-248.
10. Kydland, F. E. and E. C. Prescott, 1982. "Time to Build and Aggregate Fluctuations." *Econometrica*, 50, p. 1345-1370.
11. Lagos Ricardo, and Randall Wright, 2005. "A Unified Framework for Monetary Theory and Policy Analysis," *Journal of Political Economy*, 113(3): 463-484.
12. Ljungqvist, Lars and Thomas J. Sargent, 2004. *Recursive Macroeconomic Theory*, MIT
13. Long, J. B. and C. I. Plosser, 1983. "Real Business Cycles." *Journal of Political Economy*, 91, p. 39-69.
14. Lucas, R. E. Jr., 1972. "Expectations and the Neutrality of Money." *Journal of Economic Theory*, 4, p. 103-124.
15. Lucas, R. E. Jr., 1973. "Some International Evidence on Output-Inflation Tradeoffs." *American Economic Review*, 63, p. 326-334.
16. Lucas, R.E., 1978. "Asset prices in an exchange economy." *Econometrica*, 46, p. 1429-1445.
17. Mehra, R. and E.C. Prescott, 1985. "The equity premium: a puzzle," *Journal of Monetary Economics*, 15, p. 145-161
18. Shimer, R. 2012. "Reassessing the Ins and Outs of Unemployment." *Review of Economic Dynamics* 15(2) p. 127-48.
19. Stokey, Nancy und Lucas, Robert E., with E. Prescott, 1989. *Recursive Methods in Economic Dynamics*, Harvard University Press, Cambridge MA, London
20. Thomas F. Cooley (ed.), 1997. *Frontiers of Business Cycle Research*, Princeton University Press
21. Knoop, Todd A. 2010. *Recessions and Depressions: Understanding Business Cycles, 2nd edition*, Praeger, Westport, CT
22. Hayek, F. A. 1933. *Monetary Theory and the Trade Cycle*. Sentry Press, New York. [URL: <https://mises.org/library/monetary-theory-and-trade-cycle-0>]

ECN 605 Advance Econometrics Methods

Course Code	ECN 605
Course Name	Advance Econometrics Methods
Course Instructor	Dr. Archi Bhatia
Credit	4

Course objectives

- To equip the students with advance tools of time series and teach them the skills required to complete a research project.
- To train the students to use various quantitative techniques required in economic research.

Attendance Requirements: Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 per cent
2. End Term Examination: 50 per cent
3. Counselling, Activities and Tutorials (CAT): 25 per cent
 1. Class Participation: 5 percent
 2. Assignment: 10 percent
 3. Quiz/Class Test: 10 percent

COURSE CONTENTS

Unit 1- Single Equation regression Models: Basic Revision (5 Hours)

Multiple Linear Regression Model, Dummy Variable, use of t and F-test, tests involving Dummy variables

Reference: Pindyck and Rubinfeld, Ch 5

Unit 2- Univariate Time series Modelling and Forecasting (10 Hours)

Characteristics of stochastic processes, Moving Average processes, Autoregressive processes, Partial Autocorrelation function, Invertibility condition, ARMA process, Box Jenkins Approach, ARMA models in E-views

Reference: Properties of Stationary processes, characteristics-Gujarati, Ch 21

Time series, the ACF- Pindyck and Rubinfeld, Ch 16

MA, AR, ARMA- Pindyck and Rubinfeld, Ch 17

Box Jenkins, ARMA in E-views- Brooks Ch 5, Gujarati Ch 22

Unit 3- Estimating and Forecasting with Time Series Models (5 Hours)

Forecasting AR process, forecasting MA process, Accuracy of forecast, Forecasting using ARMA models in E-views

Reference: Brooks- Ch 5

Unit 4- Multivariate Models (10 Hours)

Vector Autoregression Models, Choosing VAR lag length, block significance and Granger causality, impulse response, variance decomposition, VAR estimation in E-views

Ref: Brooks- Ch 6, Enders Ch5

Unit 5- Unit root, Testing for Unit roots, Error Correction models, Co-integration, Engle-Granger Methodology (10 Hours)

Reference: Brooks- Ch 7, Enders Ch 6, Gujarati Ch 21

Books

- 1) Damodar, N. Gujarati – Basic Econometrics, 4th edition
- 2) Chris Brooks- Introductory Econometrics for Finance (2008) Cambridge University Press
- 3) Walter Enders- Applied Econometric Time Series, Wiley 2nd edition
- 4) Robert S. Pindyck and Daniel L. Rubinfeld- Econometric Models and Economic Forecasts, McGraw Hill, 4th edition