

Syllabi and Scheme of Examination

for

M.A. Economics (Two-Year PG Degree Programme) (With effect from August, 2015)



University School of Humanities and Social Sciences Guru Gobind Singh Indraprastha University Dwarka, New Delhi - 110078

# **MA Economics**

# (Semester Wise Course Contents)

# SEMESTER – I

SI. No.	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
Theory				L + T*	
1	HSECO-601	307601	Microeconomics	4+1=5	Lectures/ Assignments
2	HSECO-603	307603	Macroeconomics	4+1=5	Lectures/ Assignments
3	HSECO-605	307605	Statistical Methods	4+1=5	Lectures/ Assignments
4	HSECO-607	307607	Mathematical Methods	4+1=5	Lectures/ Assignments

Note: (1). L= Lecture, T = Tutorial; (2). In case of Practicals/Tutorials/Seminars, one credit would be equivalent to two hours of teaching.

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# **MA Economics**

(Semester Wise Course Contents)

# SEMESTER - II

SI. No	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
The				L+T	
1	HSECO-602	307602	Econometrics-I	4+1=5	Lectures/ Assignments
2	HSECO-604	*307604	Economics of Money, Banking and Finance	4+1=5	Lectures/ Assignments
3	HSECO-606	307606	Development Economics	4+1=5	Lectures/ Assignments
Elec	tive -I (Any o	one from the	following)		
4	HSECO-608	307608	Industrial Economics	4+1=5	Lectures/ Assignments
	HSECO-610	307610	Financial Economics	4+1=5	Lectures/ Assignments
	HSECO-612	307612	Environmental Economics	4+1=5	Lectures/ Assignments
	HSECO-614	307614	Economics of Business Cycles and Crisis	4+1=5	Lectures/ Assignments

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# **MA Economics**

(Semester Wise Course Contents)

# **SEMESTER – III**

SI. No	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
The	ory			L + T	
1	HSECO-701	307701	Econometrics-II	4+1=5	Lectures/ Assignments
2	HSECO-703	307703	Public Economics	4+1=5	Lectures/ Assignments
3	HSECO-705	307705	International Economics	4+1=5	Lectures/ Assignments
E	lective – II (A	ny one fro	om the following):		
4	HSECO-707	307707	Behavioural Economics	4+1=5	Lectures/ Assignments
	HSECO-709	307709	Corporate Finance	4+1=5	Lectures/ Assignments
	HSECO-711	307711	Health Economics	4+1=5	Lectures/ Assignments
	HSECO-713	307713	Advanced Macroeconomics	4+1=5	Lectures/ Assignments

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# **MA Economics**

(Semester Wise Course Contents)

Sl. No.	Course Code	Course ID	Title of the Course	Total Credits	Pedagogy
Theo	ory			L+T	Alexander sealers
1	HSECO-702	307702	Issues in Indian Economics	4+1=5	Lectures/ Assignments
Ele	ective – III (Ar	y one from	the following):	All of a second	<u> </u>
2	HSECO-704	307704	Game Theory	4+1=5	Lectures/ Assignments
	HSECO-706	307706	Financial Econometrics	4+1=5	Lectures/ Assignments
	HSECO-708	307708	Natural Resource Economics	4+1=5	Lectures/ Assignments
	HSECO-710	307710	Law and Economics	4+1=5	Lectures/ Assignments
3	HSECO-752	307752	Dissertation and Viva	10	NUES/Mentor- Students Deliberations

# SEMESTER - IV

# **DISTRIBUTION OF CREDITS**

Semester – I	Semester – II	Semester – III	Semester – IV	Total Credits
20	20	20	20	80

Note: For the award of PG degree in MA Economics the student shall have to earn 80 credits.

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Annexure A)

M.A. (Economics) (Semester – I)

**Paper Code:** HSECO-601 **Nomenclature of the Paper:** Microeconomics **Internal Marks:** 40 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 60

**Objective:** To enable the students to familiarize themselves with fundamental theories and models of microeconomics that will help them to take more specialized courses in microeconomic theory and other related courses offered in other semesters of the program.

# Unit – I: Review of Consumer and Producer Behavior

Consumer behavior – Utility function – Budget constraint – consumer choice – Revealed preference – Applying consumer theory – Consumer and producer surplus – Consumer behaviour and uncertainty – Theory of production – Laws of productions – Economies and diseconomies of scale and scope – Estimation of demand and production functions.

# Unit – II: Competition and Game Theory

Pricing and output decisions in monopoly, monopolistic and oligopoly competition – Game theory and market strategy – Dominant Strategies – Nash Equilibrium – Sequential Games – Threats, commitments and credibility – Application of game theory.

### Unit - III: Competitive Factor Market

Competitive factor market – Demand and supply of factor input – Equilibrium in factor market – Monopsony in labour market – monopoly power – Labour unions.

# Unit - IV: General Equilibrium and Welfare Economics

General equilibrium analysis – Feedback between markets – Efficiency in exchange and production – Equity and efficiency – Market failure and role of government – Criteria of social welfare – Pareto-Optimality – Kaldor-Hicks-Samuelson compensation – Bergson's criterion – Arrow's impossibility theorem – Rawl's theory of social justice.

#### **Suggested Readings**

Pindyck, R.S. and D.L. Rubinfeld. Microeconomics, Prentice Hall, 2013.

Perloff, Jeffery M. Microeconomics, Pearson, 2012.

Varian, H. R. Microeconomic Analysis, W.W. Norton and Co. 2010.

Nicholson, W. and Christopher M. Snyder. *Microeconomic Theory: Basic Principles and Extensions*, South-Western College Publication, 2011.

Jehle, Geoffrey A and Philip J. Reny. Advanced Microeconomic Theory, Prentice Hall, 2011.

Revised Syllabus for 1<sup>st</sup> Semester approved by the Board of Studies (BOS) in its 3<sup>sd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016

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M.A. (Economics) (Semester – I)

**Paper Code: HSECO-603 Nomenclature of the Paper:** Macroeconomics **Internal Marks:** 40 Lecturs -4, Tutorial -1 Total Credit – 5 External Marks: 60

**Objectives:** To help students critically engage themselves with various macroeconomic theories, models and policy debates and hone up their understanding of the existing literature and recent macroeconomic events in the world economy.

# Unit - I Demand, Supply and Business Cycle

Macroeconomics and recent events in the world economy – Good market and money market – Supply side and imperfect competition – Equilibrium in labour market – Business cycle – New classical economics – Rational Expectation and policy ineffectiveness.

Readings: Carlin and Soskice, 2010. (Chapter: 1)

Froyen, 2015. (Chapter: 10 & 11).

Scarth, 2014. (Chapter: 1 & 2).

# Mankiw, Gergory. "A Quick Refresher Course in Macroeconomics." Journal of Economic Literature XXVIII (1990):1645-1 660.

#Woodford, M. "*Revolution and Evolution in Twentieth-Century Macroeconomics*." In P. Gifford (ed.) Frontiers of the Mind in the Twenty: First Century. Harvard University Press, 1999.

#Blanchard, O. "What Do We Know About Macroeconomics that Fisher and Wicksell Did Not?" Quarterly Journal of Economics 115.4 (2000): 1375-1410.

#Lane, Philip R. "The European Sovereign Debt Crisis." Journal of Economic Prespective 26.3 (2012):49-68.

#Mishkin, Frederic s. "Over the Cliff: From the Subprime to the Global Financial Crisis." The Journal of Economic Perspectives 25.1 (2011): 49-70.

#Mankiw, N. Gregory. "Real Business Cycles: A New Keynesian Perspective." The Journal of Economic Perspectives 3.3 (1989): 79-90.

#Plosser, Charles I. "Understanding Real Business Cycles." The Journal of Economic Perspectives 3.3 (1989): 51-77.

# Unit - II Inflation and Unemployment and Labour market

Inflation and Phillips curve – inflation inertia – Cost of disinflation – Disinflation and central bank preferences – Monetary rules and 3-equation IS-PC-MR model – Temporary and permanent demand shock – Supply-side structures – WS and PS curves – Price and wage push factors – Unions and wage setting arrangements – Hysteresis – The insider-outsider effect.

Revised Syllabus for 1<sup>st</sup> Semester approved by the Board of Studies (BOS) in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016

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Readings: Carlin and Soskice, 2010. (Chapter: 3 & 4).

Pierce and Tysome, 1985. (Chapter: 9)

#Romer, David. "Keynesian Macroeconomics without the LM Curve." Journal of Economic Perspectives 14.2 (2000): 149–169.

#Staiger, Douglas., James H. Stock and Mark W. Watson. "The NAIRU, Unemployment and Monetary Policy."The Journal of Economic Perspectives 11.1 (1997): 33-49.

#Ball, Laurence and N. Gregory Mankiw. "The NAIRU in Theory and Practice." The Journal of Economic Perspectives 16.4 (2002): 115-136.

#### Unit – III: Monetary and Fiscal policy

Monetary Policy – Objectives and targets – Rule versus discretion – Types of policy lags – The 3-equation model – Central bank's utility function – Phillips curve constraint – Monetary policy transmission mechanism – Automatic stabilizers – Fiscal policy transmission mechanism – Deficits and debt – Costs of Fiscal consolidation – Monetizing the debt – Fiscal policy rule.

Readings: Carlin and Soskice, 2010. (Chapter: 5 & 6).

Pierce and Tysome, 1985. (Chapter: 11)

Bernanke et al. 2001. (Chapter: 2)

#Friedman, Milton. "The Role of Monetary Policy." The American Economic Review LVIII.1 (1968): 1-17.

#Mishkin, Frederic S. "Symposium on the Monetary Transmission Mechanism." Journal of Economic Perspectives 9.4 (1995): 3-10.

#Taylor, John B. "The Monetary Transmission Mechanism: An Empirical Framework." Journal of Economic Perspectives 9.4 (1995): 11-26.

#Mohan, Rakesh. "Monetary Policy Transmission in India." RBI Monthly Bulletin, April, (2007).

#Alesina, A. and R. Perotti. "The Political Economy of Budget Deficits." IMF Staff Papers 42 (1994).

#### Unit – IV: The Open Economy

Goods market equilibrium – Sector financial balances – Price setting in the open economy – Output and trade balance in short-run – Financial market – Interest parity condition – Fixed and flexible exchange rate regimes – Mundell-Fleming model for the short-run.

Revised Syllabus for 1<sup>st</sup> Semester approved by the Board of Studies (BOS) in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016

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Readings: Carlin and Soskice, 2010. (Chapter: 9).

#Reinhart, Carmen M and Kenneth S. Rogoff. "The Modern History of Exchange Rate Arrangements: A Reinterpretation." Quarterly Journal of Economics CXIX.1 (2004).

#Taylor, Mark P. *The Economics of Exchange Rates*, Journal of Economic Literature XXXIII (1995): 13-47.

#Guillermo A. Calvo and Frederic S. Mishkin. "The Mirage of Exchange Rate Regimes for Emerging Market Countries." The Journal of Economic Perspectives 17.4 (2003): 99-118.

#Calvo, Guillermo A and Carmen M. Reinhart. "Fear of Floating. The Quarterly Journal of Economics 117.2 (2002): 379-408.

**Suggested Readings (#** indicates 'Optional Further Reading' for discussion in class & presentations)

Carlin, Wendy and David Soskice. *Macroeconomics: Imperfections, Institutions & Policies*, Oxford University Press, 2008.

Froyen, Richard T. Macroeconomics: Theories and Policies, 10th Edition, Pearson, 2012.

Pierce, David G and Peter J Tysome. *Monetary Economics: theories, evidence and policy*. Butterworths. 1985.

Snowdon, Brian and Vane R. Howard. Modern Macroeconomics. USA: Edward Elgar, 2005.

Scarth, W. Macroeconomics: The Development of Modern Methods of Policy Analysis. Edward Elgar, 2014.

Revised Syllabus for 1<sup>st</sup> Semester approved by the Board of Studies (BOS) in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016

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# UNIVERSITY SCHOOL OF HUMANITIES & SOCIAL SCIENCES, GGS INDRAPRASTHA UNIVERSITY, NEW DELHI -110078 M.A. (Economics)

(Semester – I)

**Paper Code:** HSECO-605 **Nomenclature of the Paper:** Statistical Methods **Internal Marks:** 40 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 60

**Objectives:** To enable the students to familiarize themselves with the essential statistical concepts and techniques required for studying and understanding economics and to demonstrate how statistical concepts are applied in economic theory and practice.

#### Unit - 1 Probability: Theory and Distribution

Probability and inference – Random events and probability – Sample point method – Conditional probability and independence of event – Laws of probability – Event-composition method – Law of total probability and Bayes' rule – Probability distribution – Discrete theoretical distribution – Binomial and Poisson distribution – Normal and other theoretical distribution.

### Unit – II Sampling Theory and Large Random Numbers

Population and sample – Parameter and statistic – Data collection methods – Objects of sampling – Methods of sampling – Random and Non-Random – Sampling and Non-Sampling error-Sampling distribution of a Statistic – Law of statistical regularity – Law of inertia of large numbers – Central limit theorem.

#### **Unit – III Theory of Estimation**

Meaning and concept estimation and estimator – Types of estimation – Properties of an estimator – Maximum Likelihood Estimation and properties – Uniformly minimum variance unbiased estimates – Decision-theoretic approach to estimation – Other methods of estimation – Standard error of estimator – Confidence limits – confidence interval for unknown parameters.

#### **Unit – IV Statistical Inference**

Formulation and testing of statistical hypotheses – Stages in hypothesis testing – Level of significance and confidence coefficient - Critical region – Computation of test statistic and significance test – Neyman-Pearson lemma – Likelihood Ratio Tests – Hypotheses for a single parameter and two samples.

#### **Suggested Readings:**

Wackerly, Dennis D., William Mendenhall III and Richard L. Scheaffer. *Mathematical Statistics with Application*, Thomson, 2008.

Ramachandran, K.M. and Chris P. Tsokos. *Mathematical Statistics with Applications*, Elsevier Academic Press, 2009.

Speigal. M. R. Theory and problems of Statistics, McGraw Hill, London, 1992.

Hogg, R. V., A. Craig and J. W. McKean. *Introduction to Mathematical Statistics*, Pearson Education Limited, UK. 2012.

Miller, I. & M. Miller. John E. Freund's Mathematical Statistics with Applications, Pearson. 2012.

Revised Syllabus for 1<sup>st</sup> Semester approved by the Board of Studies (BOS) in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016

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M.A. (Economics)

(Semester – I)

**Paper Code:** HSECO-607 **Nomenclature of the Paper:** Mathematical Economics **Internal Marks:** 40 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 60

**Objectives:** To enable the students to familiarize themselves with the essential mathematical concepts required for studying and understanding core economics papers and to demonstrate how mathematical concepts are used in economics theory and practice.

### Unit – I Linear Algebra

Matrix algebra – Determinants – Vectors – System of linear equations – Cramer's rule for solving system of linear equations – Input-output model – Hawkin - Simon condition – Linear independence – Characteristic (eigen) roots and vectors.

### Unit – II Differential Calculus

Derivatives and economic applications – Functions of several variables – Calculus of several variable – Young's theorem – Economic application – Implicit functions and their derivatives – System of implicit functions – Economic application.

#### **Unit – III Optimization and Economics Applications**

Introduction to quadratic forms – Unconstrained optimization – Constrained optimization with equality constraints – Kuhn-Tucker formulation – Multiplier – Envelope theorems – Economic applications: utility maximization, cost minimization, profit, output maximization.

#### Unit - IV Dynamic Analysis: Integration, Difference and Differential Equations

Review of one variable integration – Leibniz's formula – Multiple integration over product domain – Riemann integral – Generalized double integrals – Differential Equations: first and second order differential equations – Difference equations: first and second order difference equations – constant coefficients – system of difference equations.

#### **Suggested Readings**

Simon, P. C. and L. Blume, (1994), Mathematics for Economists, W.W. Norton.

Sydsaeter, K., Peter Hammond, Atle Seierstad and Arne Strom. *Further Mathematics for Economic Analysis*, Prentice Hall. 2005.

Sydsaeter, K. and P. J. Hammond. Mathematics for Economic Analysis, Pearson. 2009.

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

Avinash K. Dixit, (1990), Optimization in Economic Theory, Oxford University Press, UK.

Intriligator, Michael D. *Mathematical Optimization and Economic Theory*, Society for Industrial and Applied Mathematics Philadelphia

Revised Syllabus for 1<sup>st</sup> Semester approved by the Board of Studies (BOS) in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016

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# University School of Humanities and Social Sciences MA Economics Semester – II

**Paper Code:** HSECO-602 **Nomenclature of the Paper:** Econometrics – I **Internal Marks:** 25 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

**Objectives:** To enable the students to familiarize themselves with fundamental concepts, methods and models of econometrics and time series analysis.

### Unit - I Regression Analysis

Simple and Multiple Regression Model – Assumptions – Estimation – Gauss-Markov Theorem – Heteroscedasticity, Multicollinearity and Auto-Correlation: Consequence, detection and remedial measures.

### **Unit – II Model Selection**

Criteria for Model Selection – Specification Errors – Testing Model Specification – Errors of Measurement – Identification problem – Rules of Identification: order and rank condition.

### Unit – III Simultaneous-Equation Methods

Method of Estimating Simultaneous Equation System – Recursive Method and Ordinary Least Squares – Indirect Least Square (ILS) and 2SLS method.

#### **Unit – IV Introduction to Time Series Analysis**

Stochastic Processs – Correlation and Autocorrelation Functions – Stationarity: Unit-Root Test – ADF, Phillips-Perron – Transforming non-stationary time series.

# **Suggested Readings:**

Damodar N. Gujarati (2011), Basic Econometrics (5th Edition), Mcgraw Hill. Jeffrey M. Wooldridge (2014), Introductory Econometrics: A modern approach, 5th Edition, Cengage Learning

James H. Stock and Mark W. Watson (2011), *Introduction to Econometrics*, 3<sup>rd</sup> Edition, Addison-Wesley.

Chris Brook (2008), *Introductory Econometrics for Finance*, Cambridge university press. J. Johnston, Econometrics Methods, Mcgraw Hill (Fourth Edition)

Jan Kmenta (1997), Element of Econometrics, University of Michigan Press, New York.

Approved by the AC Sub Committee in its 2nd meeting held on 22.12.2015

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# University School of Humanities and Social Sciences MA Economics Semester – II

Paper Code: HSECO-604 Nomenclature of the Paper: Economics of Money, Banking and Financial Markets Lectures – 4, Tutorial – 1 Total Credit – 5

### **Internal Marks: 25**

**External Marks: 75** 

**Objective:** To enable the students to familiarize themselves with fundamental concepts, theories of monetary economics and to enhance their understanding of various operational and regulatory issues in central and commercial banking in India.

### Unit - I Demand for and Supply of Money

Supply of money: Measures of money stock – Balance sheet – Base-multiplier and Flow of funds approach – Demand for money: Quantity theory – Cash balance approach – Keynesian view – Tobin's portfolio model – Monetarist approach – Testing the demand for money.

### Unit - II Monetary Policy and Transmission Mechanism

Monetary policy: targets, indicators, rules and discretion, classification of lags – Guiding principles and implications for central banks – Monetary transmission mechanism – Indian scenario – money supply as policy instrument – monetarist view – Inflation Targeting.

#### **Unit – III Banking Institutions in India**

Commercial banking – Types of credit – Securities and classification – Lending and portfolio choice – Banking innovations – Credit rating framework – Co-operative Banks: features, problems and policy measures – Microfinance: issues and policy measures.

#### Unit – IV Regulatory and Supervisory Mechanism

International Financial crisis: types, policy response and regulation – CAMELS rating – Indian regulatory mechanism: RBI and financial stability in India – Financial reforms – SEBI: functions and performance.

#### **Suggested Readings:**

Keith Bain and Peter Howell (2003), *Monetary Economics: Policy and its Theoretical Basis*, Palgrave Macmillan: New York.

Pierce D.G. and P.J. Tysome (1985), *Monetary Economics: Theories, Evidence and Policy*, Butterworths, London.

L.M Bhole and Jitendra Mahakud (2011), *Financial Institutions and Markets*, Tata McGraw Hill Education Pvt. Ltd.

R. Glenn Hubbard and Anthony Patrick O'brien (2012), Money, Banking, and the Financial System, Prentice Hall.

Frederic S. Mishkin (2009), Monetary Policy Strategy, PHI Learning Pvt. Ltd. New Delhi.

Rakesh Mohan (2011), *Monetary policy in a globalized economy: A practitioner's view*, Oxford University Press, New Delhi.

Reserve Bank of India: Report on Currency and Finance, various issues.

Approved by the AC Sub Committee in its 2nd meeting held on 22.12.2015

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# (Any other reading materials provided by the instructor in the class) University School of Humanities and Social Sciences MA Economics Semester – II

**Paper Code:** HSECO-606 **Nomenclature of the Paper:** Development Economics **Internal Marks:** 25 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

**Objectives:** To enable the students to familiarize themselves with the theories, issues and recent debates in development economics.

# Unit - 1 Meaning and Measurement of Economic Development

Development: traditional and new measures, Indicators of development – PPP adjustment – Basic-Needs attainment – Capability approach – Objectives of development – Capitalism and western economic development – Growth in non-western world – Convergence controversy.

#### **Unit – II Theories of Economic Development**

Classical theory – Marx's historical materialism – Rostow's stages of growth – Vicious circle theory – Balanced and unbalanced growth – O-ring theory – Lewis model – Neoclassical and Endogenous growth theory.

### Unit – III Inequality, Poverty, and Income distribution

Measuring inequality and poverty – Dualistic development and Lorenz curve – Inverted Uhypothesis – Policy options on inequality and poverty – Demographic transition – Malthusian population trap – Household theory of fertility – Population growth and economic development.

# **Unit - IV Factors and Policies of Development**

Role of education and health – Economic and non-economic benefits – Human capital approach – Child labour – Gender gap – Education system and development – International flow of financial resources – Foreign aid debate – Two-gap model – Role of NGOs in aid.

#### **Suggested Readings:**

Michael P. Todaro and Stephen C. Smith (2011), *Economic Development* (11th Edition), Addison-Wesley, Delhi.

E. Wayne Nafziger (2006), *Economic Development* (4<sup>th</sup> Edition), Cambridge University Press, UK.

A.P. Thirwall (2005), *Growth and Development: With Special Reference to Developing Economies*, Palgrave Macmillan.

Charles P. Kindleberger and Bruce Herrick (1983), *Economic Development*, McGraw-Hill. (Any other reading materials provided by the instructor in the class)

Approved by the AC Sub Committee in its 2nd meeting held on 22.12.2015

# **University School of Humanities and Social Sciences MA Economics** Semester - II

Paper Code: HSECO-612 Nomenclature of the Paper: Environmental Economics **Internal Marks: 25** 

Lectures – 4, Tutorial – 1 **Total Credit – 5 External Marks: 75** 

**Objectives:** To enable the students to familiarize themselves with the essential concepts, models and issues of environmental economics and recent global efforts on climate change and sustainable development.

### **Unit – I Introduction**

Economy-environment interdependence - Material balance model (MBM) - Public good -Externality - Market failure.

### Unit - II Pollution and Control Policy - I

Modelling pollution mechanisms - Efficient level of pollution - Control Instruments - Criteria -Cost-efficiency and Cost-effective instruments

### Unit - II Pollution and Control Policy - II

Command and control instruments - Non-transferable emission licenses - Quasi-market instruments - Emission taxes and subsidies - Marketable emissions permits - Monitoring and enforcement - Voluntary approach - Climate Policy.

### Unit – III Environmental Valuation

Environmental risk analysis - classification of risk - Basic concepts: Environmental Benefits -User versus Existence value - Methods: Dose-Response analysis - Travel Cost Method -Hedonic Price Method - Contingent Valuation.

### **Suggested Readings**

Charls D. Kolstad (2010), Environmental Economics, Oxford University Press. Roger Perman, Yue Ma, James McGilvary and Michael Common (2003), Natural Resources and Environmental Economics, Pearson.

Janet M. Thomas and Scott J Callan (2007), Environmental Economics, Cengage Learning. Murty, M.N. and Kumar, S., (2004), Environmental and Economic Accounting for Industry, Oxford University Press, New Delhi.

(Any other reading materials provided by instructor in the class)

Approved by the AC Sub Committee in its 2nd meeting held on 22.12.2015

(Annexure - B)

M.A. (Economics) (Semester – III)

Paper Code: HSECO-701 Nomenclature of the Paper: Econometrics – II Internal Marks: 25 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

**Objectives:** To enable the students to familiarize themselves with fundamental concepts, methods and models of time series and panel data analysis.

#### Unit – I: Time Series Regression

Autoregression – Autoregressive distributed lag model – ARMA model –Autocorrelation and partial autocorrelation – Estimation of ARMA model – Box-Jenkins model selection – Granger causality test – Lag length selection – Nonstationarity: trends & breaks – Problems and detection – Vector Autoregression – Impulse response function – Cointegration and error correction model.

**Readings:** Stock and Watson, 2010, (Chapter: 14 & 16). Enders, 2015, (Chapter: 2 & 6).

#Stock, James H and Mark W. Watson. "Variable Trends in Economic Time Series." *The Journal of Economic Perspectives* 2.3 (1988): 147-174.

# Elder, John and Peter E. Kennedy. "Testing for Unit Roots: What Should Students Be Taught?" *The Journal of Economic Education* 32.2 (2001): 137-146.

#Stock, James H. and Mark W. Watson. "Vector Autoregressions", *The Journal of Economic Perspectives* 15.4 (2001): 101-115.

#Sims, C.A. "Macroeconomics and Reality." Econometrica, 48 (1980): 1-48.

#### Unit - II: Nonstationary Time Series and Volatility

Volatility clustering, Leverage effect and ARCH model – Estimation and inference of ARCH and GARCH model – The GARCH-M model – Other models of conditional variance.

Readings: Stock and Watson, 2010, (Chapter: 16).

Enders, 2015, (Chapter: 3).

#Engle, Robert. "GARCH 101: The Use of ARCH/GARCH Models in Applied Econometrics." *The Journal of Economic Perspectives* 15.4 (2001): 157-168.

#### Unit – III: Panel Data Methods

Introduction to panel data – Data with two time periods – Fixed effects regression model: assumptions and estimation – Random effects model – Correlated random effect approach – Generalized method of moments estimator.

Readings: Stock and Watson, 2010, (Chapter: 10)

Wooldridge, 2013, (Chapter. 10)

Baltagi, 2005, (Chapter: 2)

#Wooldridge, Jeffrey M. "Applications of Generalized Method of Moments Estimation." *The Journal of Economic Perspectives* 15.4 (2001): 87-100.

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 1 of 12

UNIT – IV: Data analysis using econometric softwares (Eviews and STATA and R).

**Suggested Readings (#** indicates 'Optional Further Reading' for discussion in class & presentations)

Enders, Walter. Applied Econometric Time Series, John Wiley & Sons, 2015.

Stock, James H. and Mark W. Watson. Introduction to Econometrics, Addison-Wesley, 2010.

Wooldridge, Jeffrey M. Introductory Econometrics: A modern approach, South-Western, 2013.

Baltagi, Badi H. Econometric Analysis of Panel Data, John Wiley & Sons, 2005.

Wooldridge, Jeffrey M, *Econometrics Analysis of Cross Section and Panel Data*, MIT Press, 2010.

Hamilton, James D. Time Series Analysis, Levant Books. 2012.

Hayashi, Fumio. Econometrics, New Age International Private Limited. 2007.

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 2 of 12

M.A. (Economics) (Semester – III)

Paper Code: HSECO-703 Nomenclature of the Paper: Public Economics Internal Marks: 25 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

**Objective:** The main aim of the paper is to develop the required theoretical understanding and tools for analyzing the role of government in the modern economic system and related practical tradeoffs involved in public finance policy on the allocation of resources and the distribution of income in the economy with special reference to Indian economy.

#### Unit - I: Welfare State and Social Justice

Welfare state and objectives – Liberal theories of society – Collectivist views – Role of state – Economic efficiency – Deviations from first best – Intervention and social justice – Vertical and Horizontal equity – Public choice and political process: Political Equilibrium – Logrolling – Leviathan hypothesis – Bureaucracy and public output.

Readings: Barr, 2012. (Chapter: 1, 2 & 3).

Hyman, 2011. (Chapter: 5).

Musgrave and Musgrave, 1989. (Chapter: 7).

#Grand, Julian Le. "Equity as an Economic Objective." *Journal of Applied Philosophy* 1.1 (1984): 39-51.

#### Unit - II: Insurance, Cash Benefit and Poverty Relief

Demand for insurance – Supply of insurance and asymmetric information – Social insurance – State intervention – Incentive and equity issues – Poverty relief – Arguments for state intervention – Income-tested benefits, work tax credits and other options.

**Readings:** Barr, 2012. (Chapter: 4, 6 and 8).

#Sen, Amartya K. "The political economy of targeting." *Public Spending and the poor: Theory and Evidence*. Ed. Dominique Van de Walle and Kimberly Nead. Johns Hopkins University Press, 1995, 11-24.

#Wang, Chen, Koen Caminada and Kees Goudswaard. "Income distribution in 20 countries over time." *International Journal of Social Welfare* 23 (2014): 262-275.

#Slater, Rachel. "Cash transfer, social protection and poverty reduction." *International Journal of Social Welfare* 20 (2011): 250-259.

#Ahn, Sang-Hoon and Soo-Wan Kim. "Social investment, social service and the economic performance of welfare states." *International Journal of Social Welfare* 24 (2015): 109-119.

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page **3** of **12** 

### Unit - III Economics of taxation and efficiency

Lump-sum taxes – Efficiency loss ratio – Ad Valorem taxes – Excess burden and incidence of taxes – Taxation of labour earnings and work-leisure choice – Labour market analysis of income taxation – Taxation of interest income and effect on saving – Tax inefficiencies and their implications for optimal taxation – Tax evasion and shadow economy – Tax reforms in India.

Readings: Hyman, 2011. (Chapter: 11 & 13).

Gruber, 2011. (Chapter: 20).

Hillman, 2009. (Chapter: 4).

Kumar, 2012.

Slemrod, Joel and Yitzhaki, Shlomo. "Tax avoidance, evasion, and administration," *Handbook of Public Economics*, Ed. A. J. Auerbach & M. Feldstein. Elsevier, 2002. Volume 3, PP. 1423-1470.

#Slemrod, Joel. "Cheating Ourselves: The Economics of Tax Evasion." *Journal of Economic Perspectives* 21.1 (2007): 25–48.

#Tanzi, Vito. "Uses and Abuses of Estimates of the Underground Economy." *The Economic Journal* 109. 456 (1999): F338-F347.

#### Unit – IV Economics of Public Debt and Deficit Financing

Budget deficit and the economy – Debt intolerance and default – Illiquidity versus insolvency – Doctrine of odious debt – Effects of budget deficit and surplus on credit market – Ricardian equivalence – Saving imbalances and sovereign debt crisis – Burden of public debt – Pubic debt and inflation – Public debt and economic growth.

Readings: Hyman, 2011. (Chapter: 12).

Reinhart and Rogoff, 2009. (Chapter: 2 & 4).

#Ball, Laurence and N. Gregory Mankiw. "What do budget deficits do?" *Economic Policy Symposium*, Jackson Hole, Federal Reserve Bank of Kansas City (1995): 95-119.

#Reinhart, Carmen M. and Kenneth S. Rogoff. "Growth in a Time of Debt." *American Economic Review: Papers & Proceedings* 100, (2010): 573–578.

#Frisch, Helmut. "The Algebra of Government Debt." *FinanzArchiv / Public Finance Analysis*, Bd. 54, H. 4 (1997): 586-599.

#Catao, Luis and Marco E. Terrones. "Fiscal Deficits and Inflation." *IMF Working Paper WP/03/65*, 2003.

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#Irons, John and Josh Bivens. "Government Debt and economic Growth: overreaching claims of debt threshold suffer from theoretical and empirical flaws." *Economic Policy Institute*, Briefing paper # 271, 2010.

# Bowen, William G., Richard G. Davis and David H. Kopf. "The Public Debt: A Burden on Future Generations?" *The American Economic Review* 50. 4(1960): 701-706.

#Domar, Evsey D. "The Burden of the Debt and the National Income." *The American Economic Review* 34.4 (1944): 798-827.

#Mishan, E. J. "How to Make a Burden of the Public Debt." *Journal of Political Economy* 71.6 (1963): 529-542.

#Sill, Keith. "Do Budget Deficits Cause Inflation?" Business Review Q3 (2005): 26-33.

#Lane, Philip R. "The European Sovereign Debt Crisis." The Journal of Economic Perspectives 26.3 (2012): 49-67.

**Suggested Readings (#** indicates 'Optional Further Reading' for discussion in class & presentations)

Barr, Nicholas. Economics of the Welfare State, Oxford University Press, 2012.

Hyman, David N. *Public Finance: A contemporary application of theory to policy*, USA: South-Western Cengage Learning, 2011.

Gruber, Jonathan. Public Finance and Public Policy, NY: Worth Publishers, 2011.

Hillman, Arye L. Public Finance and Public Policy, Cambridge University Press, 2009.

Kumar, Arun. The Black Economy in India, Penguin India, 2002.

Srivastava, D. K. Development and Public Finance: Essays in Honour of Raja J Chelliah. Sage India. 2012.

Reinhart, Carme n M. and Kenneth S. Rogoff, *This Time is Different: Eight centuries of financial folly*, Princeton University Press. 2009.

(Any other reading materials provided by the instructor in the class)

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 5 of 12

M.A. (Economics) (Semester – III)

Paper Code: HSECO-705 Nomenclature of the Paper: International Economics Internal Marks: 25 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

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**Objectives:** To enable the students to familiarize themselves with the theories, issues and recent debates in the areas of international economics.

# Unit – 1: International Trade and Evolution of Trade Theories

Gains from trade – Free trade equilibrium – Free trade – Trade gains with resource movement – Ricardian trade model – The specific factor model – Heckshcher-Ohlin model – Leontief's Paradox – Trefler's Theorem – Stolper–Samuelson theorem – Rybczynski theorem – Implications of decreasing cost and imperfect competition.

Readings: Caves, Frankel and Jones, 2002. (Chapter: 2, 3, 5 & 7).

Dunn and Mutti, 2004, (Chapter: 2, 3 & 4).

Feenstra, 2003, (Chapter: 1 & 2)

Irwin, 2009. (Chapter: 2).

#Samuelson, P. A. "The Gains from International Trade Once Again." *The Economic Journal* 72 (1962): 820-829.

#Helpman, Elhanan. "The Structure of Foreign Trade." *The Journal of Economic Perspectives* 13.2 (1999): 121-144.

#Eaton, Jonathan and Samuel Kortum. "Putting Ricardo to Work." *The Journal of Economic Perspectives* 26.2 (2012): 65-89.

### **Unit – II: Theory of Trade Protection**

Tariff and other barriers to trade – Small and large country case – Tariff and national welfare – Political economy of protection and trade policy.

**Readings**: Caves, Frankel and Jones, 2002. (Chapter 10 & 11).

Dunn and Mutti, 2004. (Chapter: 5 & 6).

Irwin, 2009. (Chapter: 3-5).

#### Unit - III: Trade Liberalization and Issues in Trade Policy

Welfare effect of trade preferences – Trade creation and trade diversion – Preferential arrangements in practice – The European Union – NAFTA – Agreements in the Asian region – Multilateral trading system: history and recent controversies – Globalization and Indian economy – Controversies in trade policy.

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 6 of 12 Readings: Dunn and Mutti, 2004. (Chapter: 5 & 6).

Krugman, Obstfeld and Melitz, 2012. (Chapter: 12)

Bhagwati, 2004. (Chapter: 1-4).

Irwin, 2009. (Chapter: 6).

#Sen, Amartya. "How to Judge Globalisation." *The Globalization Reader*, Ed. Frank J. Lechner and John Boli. Wiley Blackwell, 2015.

#Sraiger, Robert W. "International Rules and Institutions for Trade Policy." *Handbook of International Economics*, Ed. G. Grossman and K. Rogoff. Elsevier: Vol. III (1995): 1495-1551.

Unit – IV: Balance of Payment and Exchange Rate

Alternative models of exchange rate determination – Balance of Payments adjustment with fixed exchange rate – Dollarization – Currency boards – Bretton Woods adjustment mechanism – Payments adjustment through exchange rate changes – International macroeconomics puzzles.

Readings: Dunn and Mutti, 2004. (Chapter: 17, 18 & 19).

#Burstein, Ariel and Gita Gopinath. "International Prices and Exchange Rates." *Handbook of International Economics*, Volume 4, 2014, pp. 391-451.

#Garber, Peter M. and Lars E.O. Svensson. "The operation and collapse of fixed exchage rate regimes." *Handbook of International Economics*, Ed. G. Grossman and K. Rogoff, 1995.

#Obstfeld, M and Kenneth Rogoff. "Six major puzzles in International Macroeconomics;" *NBER Macro Annual*, Ed. Ben S. Bernanke and Kenneth Rogoff, MIT Press, 2000.

#Lewis, K. "Puzzles in International Finance." *Handbook of International Economics*, Ed. Grossman, Gene M., Rogoff, Kenneth. North Holland: Amsterdam, 1995.

#Lucas, R. "Why doesn't capital flow from rich to poor countries?" *American Economic Review 80.2* (1990): 92-96.

#Rogoff, K. "The Purchasing Power Parity Puzzle" *Journal of Economic Literature* 34 (1996): 647-668.

**Suggested Readings (#** indicates 'Optional Further Reading' for discussion in class & presentations)

Caves, Richard E, Jeffery A. Frankel and Ronald W. Jones. *World Trade and Payments*, Pearson, 2002.

Dunn, Robert M. and John H. Mutti. International Economics, New York: Routledge, 2004.

Feenstra, Robert. Advanced International Trade: Theory and Evidence, Princeton University Press, 2003.

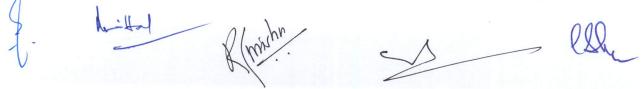
Krugman, Paul R, Maurice Obstfeld and Marc J. Melitz. *International Economics: Theory & Policy*, Addison-Wesely, 2012.

Irwin, Douglas A. Free Trade Under Fire, Princeton University Press, 2009.

Bhagwati, Jagdish. In defense of globalization. USA: Oxford University Press, 2007.

(Any other reading materials provided by the instructor in the class)

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 7 of 12



M.A. (Economics) (Semester – III)

Paper Code: HSECO-711 Nomenclature of the Paper: Health Economics Internal Marks: 25 Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

**Objectives:** To enable the students to familiarize themselves with the essential concepts, models and issues and policy debates in health economics in both developed and developing countries from an economic perspective. The course will also focus on understanding the theoretical and practical insights derived from the policy measures adopted by various governments.

#### Unit - I: Introduction to Economics of Health

Determinants of health – Health and development – Health policy challenges – Public and private roles in health – Instruments and rational for government intervention – Approaches to economic evaluation of health – Cost effectiveness analysis – Cost-Utility analysis – Human capital approach.

Readings: Jack, 1999. (Chapter: 3)

Musgrove, 2004. (Chapter: 2 & 3).

Folland, Goodman and Stano, 2013. (Chapter: 4 & 19).

#Hsiao, William C. and Peter S. Heller. "What Macroeconomists Should Know about Health Care Policy." *International Monetary Fund*, Washington, D.C. 2007.

#Deanton, Angus. "Health, Inequality, and Economic Development." *Journal of Economic Literature* XLI (2003): 113–158.

#Miguel, Edward. "Health, Education, and Economic Development." Health and Economic Growth: Findings and Policy Implications. Ed. Guillem López-Casasnovas, Berta Rivera and Luis Currais, Cambridge: MIT Press, (2005): 140-168.

### Unit – II: Demand for Health Care

Health and human capital – Demand for health – Grossman's investment model and empirical evidence – Consumption model – Demand for health care – Health insurance market: demand and supply – Welfare loss and excess health insurance – Income transfer effect – Asymmetric information and health market – Lemons principle.

Reading: Folland, Goodman and Stano, 2013. (Chapter: 4, 8 & 10).

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#Wagstaff, Adam. "The demand for health: theory and applications." *Journal of Epidemiology and Community Health* 40 (1986): 1-11.

#Grossman, Michael. "The Demand for Health: A Theoretical and Empirical Investigation." *NBER* (1972): 31-38.

#Grossman, Michael. "On the Concept of Health Capital and the Demand for Health." *The Journal of Political Economy* 80.2 (1972): 223-255.

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 8 of 12

### Unit – III: Public Health Care

McGuire and Pauly's model of physician's practice – Supplier-induced demand – Target income hypothesis – Diffusion of information and SAV – Public health expenditure: criteria and size across countries – Socialization of health care – Economics of health bads: models of addiction – public intervention – taxes on consumption of bads.

Readings: Folland, Goodman and Stano, 2013. (Chapter: 15 & 24).

Musgrave, 2004. (Chapter: 9& 10)

#Charles, Kerwin Kofi and Philip DeCicca. "Local labor market fluctuations and health: Is there a connection and for whom?" *Journal of Health Economics* 27 (2008): 1532–1550.

#Labelle, Roberta, Greg Stoddart and Thomas Rice. "A re-examination of the meaning and importance of supplier-induced demand." *Journal of Health Economics* 13 (1994) 347-368.

#Wagestaff, Adam. "Social health insurance reexamined." *Health Economics* 19 (2010): 503–517.

#Adda, Jérôme and Francesca Cornaglia. "Taxes, Cigarette Consumption, and Smoking Intensity." *The American Economic Review* 96.4 (2006): 1013-1028.

#### Unit – IV: Health Care Systems

Health care system – Contemporary health care systems – Indian health care system – Comparison of other health care systems: United Kingdom, United States of America and China – Integrated health systems.

**Readings:** Folland, Goodman and Stano, 2013. (Chapter: 22).

Jack, Principles 1999. (Chapter: 10)

#Hsiao, William C. "What is a Health System? Why Should We Care?, *Working paper*, Harvard School of Public Health, 2003.

#National Commission on Macroeconomics and Health, *Financing and Delivery* of *Health Care Services in India*, Ministry Of Health And Family Welfare, Government Of India, 2005.

**Suggested Readings (#** indicates 'Optional Further Reading' for discussion in class & presentations)

Folland, Sherman, Allen C. Goodman and Miron Stano. *The Economics of Health and Health Care*, Pearson, 2013.

Jack, William. *Principles of Health Economics for Developing Countries*, WBI Development Studies, The World Bank, 1999.

Musgrave, Philip. Health Economics in Development, The World Bank, 2004.

(Any other reading materials provided by instructor in the class)

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 9 of 12

# **Paper Code:** HSECO-709 **Nomenclature of the Paper:** Corporate Finance **Internal Marks:** 25

Lectures – 4, Tutorial – 1 Total Credit – 5 External Marks: 75

**Objectives:** To enable the students to familiarize themselves with the working of modern financial system, financial instruments, and different financial markets. The course aims to introduce issues of corporate finance to the students from the perspective of financial economist/financial manager for preparing them for investment and financing decisions.

# Unit – I Introduction to finance and financial markets

Finance and Society – Types of firm – Financial institutions and markets – Functions of financial markets – Agency problem – Asset class and financial instruments: money market, bond market, equity securities, derivative markets – Security trading – Time value of money.

Readings: Shiller, 2012, (pp. 1.15)

Brealey, Myers and Marcus, 2001. (Chapter: 1 & 2).

Bodie, Kane and Marcus, 2014. (Chapter: 2 & 3).

#Wolf, Martin. "Unfettered finance is fast reshaping the global economy." *Financial Times*, June 18, 2007.

#"The slumps that shaped modern finance", The Economist, April 12, 2014.

# Unit-II: Investment Theory and Recent Developments

Efficient capital markets – Alternative efficient market hypotheses – Portfolio management – Markowitz portfolio theory – Measurement of risk – CAPM – Empirical tests of CAPM – Arbitrage pricing theory – Empirical tests of APT – Multifactor model and risk estimation – Behavioral Finance and Technical Analysis – Biased random walk and chaotic structure in asset price movements.

Readings: Reilly and Brown, 2012. (Chapter: 6-8).

Bodie, Kane and Marcus, 2014. (Chapter: 9-13).

ital

#Mullins, David. "Does the Capital Asset Pricing Model Work?" *Harvard Business Review* (1982): 105-113.

#Shiller, Robert. "Efficient Markets, Random Walks, and Bubbles." In *Irrational Exuberance*, Princeton University Press, 2015.

#Fama, Eugene F. and Kenneth R. French. "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives* 18.3 (2004): 25–46.

#Malkiel, Burton G. "The Efficient Market Hypothesis and Its Critics." *Journal of Economic Perspectives* 17.1 (2003): 59 – 82.

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page **10** of **12**  #Fama, Eugene F. "Random Walks in Stock Market Prices." *Financial Analysts Journal* 51. 1 (1995): 75-80.

#Savit, Robert. "When Random is Not Random: An Introduction to Chaos in Market Prices." *The Journal of Futures Markets* 8.3 (1988): 271-289.

#Barnett, William A. and Apostolos Serletis. "Martingales, nonlinearity, and chaos." *Journal of Economic Dynamics & Control* 24 (2000): 703-724.

#Hsieh, David. "Chaos and Nonlinear Dynamics: Application to Financial Markets." *Journal of Finance* XLVI.5 (1991): 1839-1877.

#### Unit - III Fixed Income Securities and Term Structure of Interest rate

Bond prices and yields – Bond pricing – Default risk and bond pricing – Determinants of bond safety – Credit default swaps (CDS) – Collateralized Debt Obligations – Yield curve and future interest rate – Theories of term structure.

Readings: Reilly and Brown, 2012. (Chapter: 17-18).

Bodie, Kane and Marcus, 2014. (Chapter: 14-15).

#Tood, Steven. "Credit Default Swaps, in Financial Derivatives: Pricing and Risk Management." *Financial derivatives: Pricing and Risk Management*. Ed. Robert W. Kolb and James A. Overdahl. John Wiley & Sons, (2010): 177-198.

#Stulz, René M. "Credit Default Swaps and the Credit Crisis." *Journal of Economic Perspectives* 24.1 (2010): 73–92.

#Augustin, Patrick., et al. "Credit Default Swaps:Past, Present, and Future." *Annual Review of Financial Economics* 8 (forthcoming, December 2016).

#Coval, Joshua., Jakub Jurek and Erik Stafford. "The Economics of Structured Finance." *The Journal of Economic Perspectives* 23.1 (2009): 3-26.

#Krishnamurthy, Arvind. "How Debt Markets Have Malfunctioned in the Crisis." *The Journal of Economic Perspectives* 24.1 (2010): 3-28.

#### Unit – IV Derivative Security Analysis

Introduction to derivative market and securities – Social functions of financial derivatives – Options market – Futures market – Swap contracts and convertible securities –

Readings: Reilly and Brown, 2012. (Chapter: 20-23).

Bodie, Kane and Marcus, 2014. (Chapter: 20-23).

#Koppenhaver, G. D. "Derivative Instruments: Forwards, Futures, Options, Swaps, and Structured Products." *Financial Derivatives: Pricing and Risk Management*. Ed. Robert W. Kolb and James A. Overdahl. John Wiley & Sons, (2010): 3-20.

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#Todd, Steven. "Structured Credit Products." *Financial Derivatives: Pricing and Risk Management*. Ed. Robert W. Kolb and James A. Overdahl, John Wiley & Sons, (2010): 199-210.

#Stulz, René M. "Should We Fear Derivatives?" *The Journal of Economic Perspectives* 18. 3 (2010): 173-192.

**Suggested Readings (#** indicates 'Optional Further Reading' for discussion in class & presentations)

Reilly, Frank K. and Keith C. Brown, *Analysis of Investment & Management of Portfolio*, Cengage Learning, 2012.

Bodie, Zvi., Alex Kane and Alan J Marcus. Investments, McGraw Hill Eductaion, 2014.

Brealey, Richard A., Stewart C. Myers and Alan J. Marcus, *Fundamentals of Corporate Finance*, McGraw-Hill Companies, 2001.

Peters, Edgar E. Chaos and Order in the Capital Markets: A New View of Cycles, Prices, and Market Volatility, John Wiley & Sons, 2008.

Peters, Edgar E. Fractal Market Analysis: Applying Chaos Theory to Investment and Economics, John Wiley & Sons, 1994.

Kolb, Robert W and James A. Overdahl. *Financial Derivatives: Pricing and Risk Management*, John Wiley & Sons, 2010.

Chisholm, Andrew M. Derivative demystified, John Wiley & Sons, Ltd, 2010.

Shiller, Robert J. Irrational Exuberance, Princeton University Press, 2015.

Shiller, Robert J, Finance and the Good Society, Princeton University Press, 2012.

(Any other reading materials provided by instructor in the

Approved by the BOS in its 3<sup>rd</sup> meeting held on 30.06.2016 and in AC Sub-Committee meeting held on 01.07.2016 Page 12 of 12