

St. Xavier's College – Autonomous Mumbai

Syllabus For1st Semester Courses in Economics (June 2016 onwards)

Contents: Theory Syllabus for Courses: A.Eco.1.01 - Introductory Microeconomics: Demand and Production

FYBA

COURSE: A.ECO.1.01

TITLE: INTRODUCTORY MICROECONOMICS - DEMAND & PRODUCTION

LearningObjectives:

1. To introduce students to analyzing microeconomic concepts quantitatively.

2. To encourage students understand the relevance of theory in the real world.

Number of Lectures: 60

UNIT I:

Introductory Concepts

[12 lectures]

1. Meaning of microeconomics and the conception of equilibrium.

- 2. Basic mathematics: Limits, functions and introduction to derivatives.
- 3. Basic statistics: Introduction to regression analysis

UNIT II:

Consumer Behaviour

- 1. Indifference Curve Analysis: Consumer's equilibrium, Income, Price and Substitution Effects.
- 2. Revealed Preference
- 3. Elasticity of Demand: Price, Income, Cross and Promotional
- 4. Consumer's Surplus

<u>UNIT III:</u>

Theoretical Aspects of Production

- 1. Law of Variable Proportions
- 2. Isoquants, Iso-cost lines and producer's equilibrium
- 3. Returns to Scale: Economies and Diseconomies of Scale
- 4. Cobb-Douglas Production Function

UNIT IV:

Revenue and Cost Analysis

- 1. Cost Analysis: Concepts of Marginal Cost, Average cost, mathematical treatment
- 2. Revenue Analysis: Concept of Marginal and Average Revenue, mathematical treatment.

First C.I.A.: MCQ-Test

Second C.I.A.: Project(designed to test application of theory to urban informal enterprises)

[15 lectures]

[12 lectures]

[18 lectures]

List Of Recommended Reference Books

Basic Reference Book

Mankiw, N. G. (2002), Principles of Economics, Thomson Asia Pte. Ltd., Singapore.

Additional References:

1. Ahuja, H. L. (2012), Advanced Economic Theory, S. Chand & Company, New Delhi.

2. Koutsoyiannis, A. (1980) Modern Microeconomics, Macmillan Press Ltd, London.

3. Lipsey and Chrystal (2004), Economics, Oxford University Press.

4. Samuelson P. A. & W. D. Nordhaus (1998), Economics, Tata McGraw Hill, New Delhi.

5. Salvatore, D. (2003), Microeconomics, Oxford University Press.



St. Xavier's College – Autonomous Mumbai

Syllabus For2nd Semester Courses in Economics (June 2016 onwards)

Contents: Theory Syllabus for Courses:

> A.Eco.2.01 - Introductory Microeconomics: Pricing Theories – Product Market

FYBA

COURSE: A.ECO.2.01

TITLE: INTRODUCTORY MICROECONOMICS: PRICING THEORIES -PRODUCT MARKETS

Learning Objectives:

1. To introduce students to analyzing microeconomic concepts quantitatively.

2. To encourage students understand the relevance of theory in the real world.

Number of Lectures: 60

UNIT I:

Theory of the firm

1. Objectives of the firm (Profit and Sales Maximisation)

- 2. Break even analysis
- 3. Pricing methods (Marginal Cost and Full Cost Analysis)

UNIT II:

Market Structures

[20 lectures]

[10 lectures]

- 1. Short-run and long-run equilibrium of a firm under Perfect Competition
- 2. Short-run and long-run equilibrium of a Perfectly Competitive Industry
- 3. Short-run and long-run equilibrium of Monopoly; Discriminating Monopoly, Dumping
- 4. Short-run and long-run equilibrium of firm and industry under Monopolistic Competition

UNIT III:

Factor Markets

[20 lectures]

- 1. Factor pricing in perfectly and imperfectly competitive markets.
- 2. Wage determination; Collective Bargaining
- 3. Risk, Uncertainty and Profits
- 4. Economic Rents

UNIT IV:

Choice under Uncertainty

[10 lectures]

- 1. Expectations and expected utility
- 2. Concept of risk-aversion.
- 3. Jensen's inequality.
- 4. Insurance and risk-aversion.

Reference for choice under uncertainty: Sampat Mukherjee. Microeconomics

First C.I.A. : MCQs

Second C.I.A.: Presentations of Project (the theme of the project is 'Experiencing the real market')

List Of Recommended Reference Books

Basic Reference Book

Mankiw, N. G. (2002), Principles of Economics, Thomson Asia Pte. Ltd., Singapore.

Additional References:

- 1. Ahuja, H. L. (2012), Advanced Economic Theory, S. Chand & Company, New Delhi.
- 2. Koutsoyiannis, A. (1980) Modern Microeconomics, The Macmillan Press Ltd, London.
- 3. Lipsey and Chrystal (2004), Economics, Oxford University Press.
- 4. Salvatore, D. (2003), <u>Microeconomics</u>, Oxford University Press.
- **5.** Paula J. Meske. The Solid Waste Dilemma: Municipal Liability and Household Hazardous Waste Management in Journal of Environmental Law. Volume: 23. Issue: 1. Jan, 1993

Page 2 of 2

SYBA

TITLE: ELEMENTARY STATISTICAL TECHNIQUES

Learning Objective: The central objective of the paper is to equip students with requisite statistical skills for data analysis.

Number of Lectures: 60

Unit 1: Measures of Central Tendency and Dispersion

Graphical Representation of Categorical and Numerical data; Describing Location of a Distribution: Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Deciles, Ouartiles, Locating Median from Histogram; Describing Dispersion of a Distribution: Range, Mean Deviation, Variance and Standard Deviation; Describing Shape of a Distribution: Skewness and Kurtosis.

<u>Unit 2</u>: Describing Individuals in Distribution

Percentile Ranks; Percentiles with ungrouped scores; Standardization: Common scales of Measurement.

Unit 3: Bivariate Analysis

Quantitative Description of Statistical Relation: Covariance, Karl Pearson's Correlation Coefficient, Spearman's Rank Correlation Coefficient.

<u>Unit 4</u>: Probability

Classical and Relative Frequency Approach to Probability; Addition and Multiplication Laws of Probability; Conditional Probability and Bayes Theorem.

CIA-1: Written Test CIA-2: Assignment

Basic Reference:

Richard Levin, Statistics for Management, Seventh Edition(2012).

Additional Reference:

S.P. Gupta, Statistical Methods, 43rd Edition(2014).

Course: AC.3.01

[10 Lectures]

[30 Lectures]

[10 Lectures]

SYBA Semester IV

TITLE: ELEMENTARY MATHEMATICAL TECHNIQUES

Learning Objective: The central objective of the paper is to equip students with quantitative methods used in the field of social sciences.

Number of Lectures: 60

Unit 1: Matrix Algebra [15 Lectures] Transitional Probability Matrix, Encoding and Decoding Matrix, Input-Output Analysis. **Unit 2: Linear Programming Problem** Assignment Problem, Production Planning and Personnel Scheduling Problem, Interpretation of

Dual Variables, Solution of Linear Programming Problem: Graphical Method and Simplex Method Basic Feasible Solution of a Transportation Problem: North-West Corner Rule, Minimum Cost

Rule, Vogel's Approximation Rule.

Unit 3: Financial Mathematics

Simple and Compound Interest; Continuous Compounding; Discounting.

Unit 4: Game Theory

Pay-off Matrix, Minimax and Maximin Principle, Saddle Point.

CIA-1: Written Test CIA-2: Written Test

Basic Reference:

Borwankar Pratibha, Mathematical Techniques for Economics, Sheth Publishers.

Additional Reference:

Saul I.Gass, An Illustrated Guide to Linear Programming Problem(2013).

[25 Lectures]

[10 Lectures]

Course: A.ECO.5.07

TITLE: STATISTICAL TECHNIQUES FOR ECONOMICS

Learning Objective: The central objective of the paper is to familiarize students with fundamental statistical techniques required for economic applications.

Number of Lectures: 60

<u>Unit 1</u>: Probability Distributions

Discrete Distributions: Binomial, Poisson; Expected Value and Variance; Standardized Binomial Random Variable; Continuous Probability Distributions: Normal Distribution

Unit 2: Statistical Inference

Sampling Distributions; Hypothesis Testing: Type I and Type II Errors, Power of a Test, Testing about one and two population means for small and large samples(z and t distributions), Testing hypotheses about population variances(Chi-square and F distributions)

<u>Unit 3</u>: Jointly Distributed Random Variables

Joint and Marginal Distributions; Conditional Probability, Conditional Expectation, Conditional Variance, Covariance and Correlation.

CIA-1: R Assignment CIA-2: Written Test

Basic Reference:

Richard Levin, Statistics for Management, Seventh Edition(2012).

Additional Reference:

S.P. Gupta, Statistical Methods, 43rd Edition(2014).
Jay Devore, Probability and Statistics for Engineering and the Sciences, Cengage(2010).
Perry Hinton, Statistics Explained, Routledge(2014).
Seymour Lipschutz, Schaum's Outline of Probability and Statistics, McGraw Hill(2017).

[10 Lectures]

[25 Lectures]

TYBA Semester V



St. Xavier's College – Autonomous Mumbai

Syllabus

For6 Semester Courses in Economics (June 2016 onwards)

Contents:

Theory Syllabus for Courses:

A.Eco.6.01 – Macroeconomics: Theory and Practice A.Eco.6.02 – Principles of Macroeconomics

A.Eco.6.03 – Economic Development: Policy and Applications - I A.Eco.6.04 – Economic Development: Policy and

Applications - II A.Eco.6.05–Introduction to Political Economy

A.Eco.6.06–International Finance: Theory and Policy

A.Eco.6.07–Mathematical Techniques for Economics

A.Eco.6.08–Econometrics – II (for 2016-17 & 2017-18 Batches)

A.Eco.6.08–Advanced Econometrics – II (w.e.f. 2018 onwards)

A.Eco.6.09–Corporate Financial Analysis

A.Eco.6.10–Indian Financial Markets

Course: A. ECO.6.01

Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

ТҮВА

TITLE: MACROECONOMICS: THEORY AND PRACTICE

Number of Lectures: 60

Learning Objectives:

- 1. To introduce students to the IS-LM Analysis as a framework for Macroeconomic Policy evaluation
- 2. To introduce the student to the fundamentals of International Economics and Public Finance.

<u>UNITI:</u>

IS-LM Model:

- 1. Money market equilibrium: The LM curve; Product Market Equilibrium: The IS Curve; The IS and LM Curves Combined.
- 2. Factors Influencing Equilibrium Income and the Interest Rate: Monetary Influences: Shift in the LM Schedule Real Influences: Shift in the IS Schedule.
- 3. Relative Effectiveness of Monetary and Fiscal Policy: Policy Effectiveness and the Slope of the IS Schedule Policy Effectiveness and the Slope of the LM Schedule.
- 4. Derivation of the Macroeconomic (Aggregate) Demand Curve from the IS- LM Schedules Aggregate Supply and the Phillip's Curve. Determination of Price Level and Aggregate Output using AD and AS curves.

UNIT II:

Open-Economy Macroeconomics:

- 1. Fixed versus flexible exchange rate regime, Determination of Exchange Rate in Free Markets.
- 2. Mundell-Fleming model the impossible trinity. The concept of real exchange rate, Purchasing Power Parity theory.
- 3. Disequilibrium in the balance of payments and Balance of Payments Adjustments: Devaluation, Reduction in Absorption, Direct Controls.
- 4. Analysis of global economic crises.

UNIT III:

International Trade:

- 1. Classical Theory of International Trade.
- 2. Haberler's Theory of Opportunity Cost.
- 3. Heckscher-Ohlin Theory of Trade.
- 4. Law of Reciprocal Demand and Offer Curves; Tariffs and Their Effects.

UNIT IV:

Public Economics:

- 1. Market Failures and Role of the State.
- 2. Public Goods.
- 3. Public Expenditure Theory: Free Rider Problem, Efficiency Condition for Public Goods.
- 4. Principles of Taxation: Horizontal and Vertical Equity, Ability to Pay and Benefit Approach.

First C.I.A. : Short Answers and numerical application of units 1 and2

Second C.I.A.: Group presentations on the policies adopted by different nations.

Basic Reference Books:

- 1. D"souza, E. (2008), Macroeconomics, Pearson Education, New Delhi.
- 2. Salvatore, D International Economics, Prentice-Hall, New Jersey, recent edition

[15 lectures]

[15 lectures]

[15 lectures]

[15 lectures]

th 6

Page **2** of **14**

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

Additional References:

- 1. Mankiw, N. Gregory. *Macroeconomics*, 6e. New York: Worth Publishers, 2003.
- 2. Musgrave R.A. and P.B. Musgrave: *Public Finance in Theory and Practice*, 5e. New York: McGraw Hill International Edition, 1989.
- 3. Stiglitz, J. *Economics of Public Sector*, 3e. New York: W.W. Norton & Co, 2000.

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

ТҮВА

Course: A. ECO.6.02

TITLE: PRINCIPLES OF MACROECONOMICS

Learning Objectives:

- 1. To introduce the students to the IS-LM Analysis as a framework for Macroeconomic Policy evaluation
- 2. To introduce the student to the fundamentals of International Economics and Public Finance.

Number of Lectures: 60

UNITI:

IS-LM Model:

- 1. Money market equilibrium: The LM curve; Product Market Equilibrium: The IS Curve; The IS and LM Curves Combined.
- 2. Factors Influencing Equilibrium Income and the Interest Rate: Monetary Influences: Shift in the LM Schedule Real Influences: Shift in the IS Schedule.
- 3. Relative Effectiveness of Monetary and Fiscal Policy: Policy Effectiveness and the Slope of the IS Schedule Policy Effectiveness and the Slope of the LM Schedule.
- 4. Derivation of the Macroeconomic (Aggregate) Demand Curve from the IS- LM Schedules -Aggregate Supply and the Phillip's Curve. Determination of Price Level and Aggregate Output using AD and AS curves.

UNIT II:

Theories of Business Cycles:

- 1. Introduction to economic fluctuations.
- 2. Stabilization Policy
- 3. Mundell-Fleming Model
- 4. Trade-off between inflation and unemployment.

UNIT III:

Post-Keynesian Consumption Theories:

- 1. Irving Fisher and Inter-temporal Choice.
- 2. Franco Modigliani's Life Cycle Hypothesis.
- 3. Milton Friedman's Permanent Income Hypothesis.
- 4. Robert Hall and Random-Walk Hypothesis

UNIT IV:

Public Economics:

- 1. Market Failures and Role of the State.
- 2. Public Goods.
- 3. Public Expenditure Theory: Free Rider Problem, Efficiency Condition for Public Goods.
- 4. Principles of Taxation: Horizontal and Vertical Equity, Ability to Pay and Benefit Approach.

I.A. : Short Answers and numerical application of <u>UNIT</u> s 1/2	
Second C.I.A.: Group presentations on the policies adopted by different nations.	

[15 lectures]

[15 lectures]

[15 lectures]

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

List Of Recommended Reference Books

Basic Reference Books:

D'souza, E. (2008), Macroeconomics, Pearson Education, New Delhi.

Additional References:

- 1. Begg, Dornbusch and Fisher, Macro Economics,
- 2. Dwivedi, D.N. Principles of Economics, Vikas Publishing House, New Delhi, 2008
- 3. Froyen, R. T. Macroeconomics: Theories and Policies, Delhi: Pearson Education Asia, 2001
- 4. Mankiw, N. Gregory. *Macroeconomics*, 6e. New York: Worth Publishers, 2003.
- 5. Morris and Levi,
- 6. Musgrave R.A. and P.B. Musgrave: *Public Finance in Theory and Practice*, 5e. New York: McGraw Hill International Edition, 1989.
- 7. Salvatore, D International Economics, Prentice-Hall, New Jersey, recent edition.
- 8. Stiglitz, J. *Economics of Public Sector*, 3e. New York: W.W. Norton & Co, 2000.

Page 5 of 14

6th Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

ТҮВА

TITLE: ECONOMIC DEVELOPMENT: POLICY AND APPLICATIONS - I

Learning Objectives:

- 1. To introduce students to theories and issues related to human resources and poverty.
- 2. To study the urban, rural and international aspects of development processes.
- 3. To understand critical areas of development economics, with reference to India.

Number of Lectures: 60

UNIT I:

Demography and Development

- 1. Demographic indicators of development
- 2. Demographic Transition and Development Patterns.
- 3. Human Capital Formation and Manpower Planning contribution of education and health.
- 4. Women and children in the workforce.

<u>UNIT II:</u>

Urbanization and Development

- 1. Urbanization and Development
- 2. Migration and Development issues; Harris-Todaro model of rural-urban migration
- 3. Urban informal sector and the labour market.
- 4. Urban Governance and Development.

UNIT III:

International Measures for Development

- 1. Foreign Trade and Development:
- 2. Trade strategies for Development: inward looking and outward looking.
- 3. Randomized Controlled Trials and Foreign Aid
- 4. Foreign Assistance and Financing and Development.

UNIT IV:

Critical issuesand the Development Paradigm

- 1. Infrastructure Deficits: Power, Connectivity, Finance, Sanitation and Shelter.
- 2. Neglect of Agriculture and Exploitation of Natural Resources.
- 3. Ecological Degradation
- 4. Human Displacement and Dispossession.

First CIA: Short Answers and Concepts

Second CIA: Applications and Case Studies.

List Of Recommended Reference Books

Basic Reference Book:

Todaro, Michael P. and S. C. Smith. *Economic Development*, 8ed. Delhi: Pearson Education, 2011.

Additional References:

- 1. Debraj Ray, *Economic Development*, Oxford Publication, New Delhi,
- 2. Meier, Gerald M. and James E. Rauch. *Leading Issues in Economic Development*, 8¹¹ ed., Oxford University Press, New Delhi:
- 3. Thirwal A.P. 'Growth and Development with special reference to developing economies, Palgrave-Macmillan Publication, New Delhi.

Course: A. ECO.6.03

[15 Lectures]

[15 Lectures]

[15 Lectures]

Page 6 of 14

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

TYBA

TITLE: FCONOMIC DEVELOPMENT: POLICY AND APPLICATIONS - II

Learning Objectives:

- 1. To introduce students to theories/issues related to population, poverty & human resources.
- 2. To study the urban, rural as well as international aspects of development processes.
- 3. To understand critical areas of development economics, with reference to India.

Number of Lectures: 60

UNIT I:

Demography and Development

- 1. Demographic indicators of development
- 2. Demographic Transition and Development Patterns.
- 3. Human Capital Formation and Manpower Planning contribution of education and health.
- 4. Gender issues in the workforce.

UNIT II:

Urbanization and Development

- 1. Urbanization and Development
- 2. Migration and Development issues; Harris-Todaro model of rural-urban migration
- 3. Urban informal sector and the labour market.
- 4. Sustainable Cities.

UNIT III:

International Measures for Development

- 1. Foreign Trade and Development:
- 2. Trade strategies for Development: inward looking and outward looking.
- 3. Randomized Controlled Trials and Foreign Aid.
- 4. Capital injection and development processes in BRICS

UNIT IV:

Critical issues and the Development Paradigm

- 1. Infrastructure Deficits: Power, Connectivity, Finance, Sanitation and Shelter.
- 2. Neglect of Agriculture and Exploitation of Natural Resources.
- 3. Ecological Degradation
- 4. Human Displacement and Dispossession.

First CIA: Short Answers and Concepts Second CIA: Applications and Case Studies.

List Of Recommended Reference Books

Basic Reference Book:

Todaro, Michael P. and S. C. Smith. *Economic Development*, 8ed. Delhi: Pearson Education, 2011.

Additional References:

- 1. Debraj Ray, Economic Development, Oxford Publication, New Delhi,
- 2. Meier, Gerald M. and James E. Rauch. *Leading Issues in Economic Development*, 8th ed., Oxford University Press, New Delhi:
- 3. Thirwal A.P. 'Growth and Development with special reference to developing economies, Palgrave-Macmillan Publication, New Delhi.

Course: A. ECO.6.04

[15 Lectures]

[15 Lectures]

[15 Lectures]

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

TYBA

Course: A. ECO.6.05

TITLE: INTRODUCTION TO POLITICAL ECONOMY

Learning Objectives:

- 1. To acquaint students with the history of political economy and thereby appreciate how modern economic policy and macro decision-making have evolved into their present form.
- 2. To familiarize students with the relationship that exists between the market on one side and individuals, society and the state on the other, w.r.t. issues concerning gender, environment and human welfare.
- 3. To engage students with the impact of evolving economic policies on the organization of production, labour market institutions and corporate structure.

Number of Lectures: 45

UNIT I:

Changing Dynamics of Capitalist Production

- 1. Perspective on political economy with a historical overview.
- 2. Fordist and Post-Fordist Production Modes: Changes in the organization of production, markets and labour process; Changes in the nature of job security and labour rights.

UNIT II:

State in the Globalization Era

- 1. Globalization and the limits of the Welfare State.
- 2. Development and State Autonomy.

UNIT III:

Changing Role of Finance

- 1. Financial Liberalizationand Financial Fragility.
- 2. Globalization and uneven development Impact on People and Environment.

First CIA: Short Answer and Concepts Test.

Second CIA: Team work assignment.

List Of Recommended Reference Books

Basic Reference Book:

Hanushek, Eric Allen, 'Modern Political Economy', Cambridge University Press (1995)

Additional References:

- 1. Chakrabarti, Shantanu and KingshukChatterjee (eds.), "Globalization and Development Current Trends" Calcutta University, Kolkata, 2012.
- 2. DaniRodrik. "Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank'sEconomic Growth in the 1990s: Learning from a Decade of Reform". Journal of Economic Literature. Vol. XLIV (December 2006), pp. 973-987.
- 3. Harvey, David, "A Brief History of Neoliberalism", Oxford University Press, 2005.
- 4. Ross, Michael, The Bottom Billion". Sage Publication, 1999.
- 5. Sen, Amartya, "Over 100 million women are missing", New York Times Review of Books, 1990.
- 6. Shleifer, Andrei and Robert W. Vishny, "The Politics of Market Socialism", The Journal of Economic Perspectives, Vol. 8, No. 2 (Spring 1994), 165-176.

[15 Lectures]

[15 Lectures]

TITLE: INTERNATIONAL FINANCE: THEORY AND POLICY

Learning Objective:

To familiarize the students with international monetary systems

Number of Lectures: 45

UNIT I:

Balance Of Payments

- 1. Accounting principles in Balance of payments (Double entry system)
- 2. Balance of payments disequilibrium causes, types, correction
- 3. Marshall Lerner Condition
- 4. Exchange Rate Theories: Balance of Payment Approach and Purchasing Power Parity Theory

UNIT II:

International Monetary Systems

- 1. Overview of Gold Standard System.
- 2. Collapse of Bretton Woods System.
- 3. Fixed versus Flexible Exchange Rate System.
- 4. International liquidity and role of IMF.

UNIT III:

Contemporary Sources of International Finance

- 1. Instruments of FOREX.
- 2. International Bonds.
- 3. International Banking.
- 4. International Equity Market.

First CIA :Short Answers and Concepts

Second CIA :Report on assigned international economic issues

List Of Recommended Reference Books

Basic Reference Book :

Dominick Salvatore, International Economics (7th Edition), John Wiley, 2001

Additional Reference Books :

1. Cherunilam Francis, International Economics (4th Edition), Tata McGraw-Hill Companies, 2006

2. Keenan P, International Economics

3. Krugman Pearson Paul R. & Obstfeld Maurice, *Economics - International Theory & Policy* (6th Edition), Pearson

- 4. Pilban Keith
- 5. Levi Morris

6. Sodersten Bo & Reed Geoffrey, International Economics, McMillan Press Ltd., 2003

Page 8 of 14

TYBA

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

Course: A. ECO.6.06

[15 Lectures]

[15 Lectures]

Page 9 of 14

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

ТҮВА

Course : A.ECO.6.07

TITLE: MATHEMATICAL TECHNIQUES FOR ECONOMICS

Learning Objectives:

- 1. To impart a basic understanding of Mathematics
- 2. To help student enhance their ability to apply the theoretical techniques to the problems of the real world.

Number of Lectures: 60

UNIT I:

Linear Algebra

- 1. Matrices and basic operations on matrices
- 2. Rank of a matrix and Inverse of a matrix
- 3. Cramer's rule
- 4. Characteristics roots and vectors (Eigen Values and Eigen Vectors)

UNIT II:

Derivatives and their Economic Applications

- 5. Limits and Continuity
- 6. Derivatives
- 7. Increasing and decreasing functions; Concave, convex functions and inflexion point
- 8. Optimisation of economic functions

UNIT III:

Multivariate Functions

- 1. Functions of several variables and partial derivatives; Marginal productivity, income and cross elasticities of demand
- 2. Homogeneous production functions and returns to scale
- 3. Total derivatives Euler's Theorem
- 4. Optimisation of multi variable functions Constrained optimisation with Lagrange multipliers - Cobb-Douglas production function

UNIT IV:

Integral Calculus

- 1. Integration:Indefinite and Definite integral.
- 2. Present value of cash flows.
- 3. Consumer's and producer's surplus.
- 4. Learning Curve.

First CIA: Numericals based on Application of Mathematics to Economics. Second CIA: Mathematical Analysis of case studies

List Of Recommended Reference Books

Basic Reference Book:

Allan, R.G.D., Mathematical Economics, Oxford Publication, New Delhi.

[15 Lectures]

[15 Lectures]

[15 Lectures]

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

Additional Reference Books:

- 1. Chiang Alpha, Mathematical Economics
- 2. Dowling, Edward T : Introduction to Mathematical Economics, Schaum's Outline Series, Tata McGraw- Hill, New Delhi, 2004
- 3. Lerner, Joel J and P. Zima : *Theory and Problems of Business Mathematics*, McGraw -Hill, New York, 1988.

Page **11** of **14**

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

ТҮВА

Course : A.ECO.6.08

TITLE: ECONOMETRICS - II

Learning Objectives:

- 1. To impart a basic understanding of Econometrics
- 2. To help student enhance their ability to apply the theoretical techniques to the problems of the real world.

Number of Lectures: 60

<u>UNITI:</u>

Econo	metric Model Specification	[15 Lectures]
1.	Identification: Structural and reduced form	
2.	Econometric Specification	
3.	Misspecification and Ramsay RESET Specification test	
4.	Endogeneity and Bias	
UNIT	<u>II:</u>	
Introd	luction to Time Series - I	[15 Lectures]
1.	Cross sectional, time series, pool and panel data	
2.	Stationary process: AR, MA, ARMA, ARIMA	
3.	Box – Jenkins methodology	
UNIT	<u>III:</u>	
Time	Series - II	[15 Lectures]
1.	Classical time series decomposition	
2.	· ·	
3.	Selection Criteria – Akaike and Swartz	
UNIT	I <u>V:</u>	
Forec	asting	[15 Lectures]
1.	Forecasting with a) Moving Averages b) Linear Trend c) Exponential	Trend-CAGR
2.	Forecasting with linear regression	

- 3. Classical time series decomposition
- 4. Measures of forecast performance: Mean square error and root mean square error
- 5. Limitations of econometric forecasts

First CIA: Numericals Second CIA: Project

List Of Recommended Reference Books

Basic Reference Book:

Wooldridge, Jeffrey, Econometrics, 2009

Additional Reference Books:

- 1. Gujarati Damodar : Basic Econometrics
- 2. HatekarNeeraj (2009), Econometrics: The First Principles A Friendly Introduction.
- 3. Lipschutz (Schaum Series) Theory and Problems of Statistics

Page 12 of 14

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

ТҮВА

Course : A.ECO.6.09

TITLE: CORPORATE FINANCIAL ANALYSIS

Learning Objective:

To acquaint the students with the application techniques of corporate finance.

Number of Lectures: 45

UNIT I:

Risk and Return: An Overview of Ca1. Risk and return of Single Ass2. Historical capital market retu3. Expected returns and risk : Pr	ets : Standard deviation and variance
UNIT II: Portfolio Theory and CAPM 1. Portfolio Risk and Returns An 2. Risk diversification: Systemat 3. Capital Asset Pricing Model (
UNIT III: International Financial Managemen 1. Foreign Exchange Market 2. International Parity Relations 3. Foreign Exchange Risk and H 4. International Capital Investm	hip Iedging

First CIA :Short Answers and Concepts Second CIA :Report on a Company's Financial Documents

List Of Recommended Reference Books

Basic Reference Book:

Pandey, I.M, Corporate Finance, Pearson Education, New Delhi, 2011

Additional Reference Books:

- 1. Brealy, Meyer, *Principles of Corporate Finance*, 8th edition, Tata-McGraw-Hill Publishing Co. Ltd., New Delhi.
- 2. Chandra, Prasanna, Finance Sense, Tata McGraw-Hill Publishing Co, Ltd., New Delhi
- 3. Chandra, Prasanna, (1993), *Fundamentals of Financial Management*, Tata McGraw–Hill Publishing Co. Ltd., New Delhi.
- 4. Damodaran, Aswath, (2007), Corporate Finance Theory & Practice, Wiley Series in Finance: New York
- 5. Ross Stephen, Randolph W. Westerfield, Bradford D. Jordan, (2008), *Fundamentals of Corporate Finance*, 8th edition, Tata McGraw Hill Publishing Co. Ltd., New Delhi.
- 6. Watson, Denzil& Antony Head, (2001), *Corporate Finance: Principles & Practices*, Pearson Education Ltd., Singapore.

Page 13 of 14

th 6 Semester Syllabus for Core and Applied Component Courses in Economics . St. Xavier's College –Autonomous, Mumbai.

TYBA

Course : A.ECO.6.10

TITLE: INDIAN FINANCIAL MARKETS

Learning Objectives:

- 1. To familiarize students with the working of financial markets and instruments
- 2. To understand the inter-linkages between the various financial markets.
- 3. To expose students to the new instruments and developments in the field of finance.

Number of Lectures: 45

UNIT I:

Derivatives

- 1. Meaning and Significance of Derivative Markets
- 2. Types of financial derivatives and their pricing: Forwards, Futures, Options and Swaps
- 3. Derivatives trading in India.

UNIT II:

Financial Instruments

- 1. Instruments: Traditional and Modern
- 2. Securitized papers
- 3. Collateralized debt obligations

UNIT III:

International Financial Instruments

- 1. Euro Bonds
- 2. ADRs and GDRs
- 3. Other International Bonds (Cocktail Bonds, Convertible Bonds)

First CIA: Short answers and Numericals on Derivatives Second CIA: Projects on Financial Markets.

List Of Recommended Reference Books

Basic Reference Book:

Pathak, Bharti, Indian Financial System (3 Edition), Pearson Publications

Additional References:

- 1. Bhole, L. M., Financial Institutions and Markets, Tata McGraw Hill Publications
- 2. Bodie, Z. et al., Financial Economics, Pearson Education
- 3. Hull, John, Introduction to Futures and Options Market, Prentice Hall of India, New Delhi
- 4. Khan M. Y., Financial Services, Tata McGraw Hill Publications
- 5. Reserve Bank of India (various issues) Report on Currency and Finance, RBI, Mumbai

Page 14 of 14

[15 Lectures]

[15 Lectures]