St. Xavier's College – Autonomous Mumbai

Syllabus for 8th Semester Core Courses in

Economics
(June 2022 onwards)

Contents:

Theory Syllabus for Courses:
AECO0801 Public Economics
AECO0802 Development Economics
AECO0803 Econometrics
AECO0804 Game Theory

MA   **Course: AECO0801**
Title: Public Economics

Learning Objectives:
1. To understand the core principles of Public Economics
2. To understand the theory and logic of Taxation
3. To understand the rationale of Public Expenditure
4. To understand the rationale of Indian Public Finance

Number of Lectures: 60
UNIT I: Basic Concepts [15 lectures]

1. Role of government in organized society: changing perspective
2. Private goods, public goods, merit goods and Club goods
3. Theorems of Welfare Economics: Implications, Lump Sum Taxes and Transfers
4. Rationale for State Intervention: Market Failures and Externalities, Tax and Regulation
5. Distribution, Social Choice, Voting Rules, Arrow's Impossibility Theorem

UNIT II: Taxation [15 lectures]

1. Understanding Tax Theory: Direct vs. Indirect Taxes, Excess burden of taxes
2. Ability to Pay: Horizontal and Vertical Equity
3. Commodity Taxation: Tax Rules, Optimal Commodity Taxation, Public Sector Pricing
4. Income Taxation: Equity and Efficiency, Optimal Income Taxation
5. Taxation and Labor Supply, Theory of incidence.

UNIT III: Public Expenditure [15 lectures]

1. Rationale for Public expenditure
2. Public Goods: Pure and Local, Optimal provision, Lindahl's Voluntary Exchange Approach
3. Preference Revelation mechanism
4. Private provision of Public Goods, Merit Goods, Club Goods
5. Evaluation of Government Expenditure: Elements of Cost-Benefit analysis, Gender budgeting
6. Principles of debt management and repayment.

UNIT IV: Indian Public Finance [15 lectures]
1. Fiscal Federalism
2. Deficit financing and FRBM
3. India's Federal Structure: Taxation powers, Expenditure responsibilities, Intergovernmental transfers, VAT, GST
4. Fiscal Rules: Rationale, International and Indian Experiences and case studies.

Basic Reference Books:

1. Atkinson A.B. and J.E. Stiglitz, Lectures on Public Economics, New York: McGraw-Hill, 1980
2. Cullis J. and P. Jones, Public Finance and Public Choice, OUP, 1998
3. Hindriks J. and G.D. Myles, Intermediate Public Economics, MIT Press, 2006
4. Myles G., Public Economics, Cambridge University Press, 1995
5. Musgrave R. A. and Musgrave P. S. – The theory of Public Finance
6. Stiglitz Joseph – Economics of the Public Sector
7. Herber – Modern Public Finance
8. Bhatia H. L. – Indian Public Finance

MA   **Course: AECO0802**
Title: Development Economics

Learning Objectives:
1. To understand the basics of Development Economics
2. To understand the basic indicators of development
3. To learn classical theories and models of Economic Growth
4. To understand the policy intervention in Indian context

Number of Lectures: 60
UNIT I: Indicators of Development [15 lectures]

1. Economic growth to Economic Development: Inclusive development
2. Basic Indicators of Development: Per Capita Income, Gross Domestic Product, Sector-wise contribution to GDP, Human Development Index, Multi-dimensional Poverty Index, Gross National Happiness, Per Capita Resource Consumption, Nutrition and Calorie consumption
3. Population growth and Demographic indicators
4. Comparative analysis of Developed, Developing and Less-Developed Countries
5. Poverty, Inequality and Development: Lorenz Curves, Gini Coefficient

UNIT II: Classic Theories of Economic Growth [15 lectures]

1. Linear Stage Theories: Rustow, Harrod-Domar
2. Structural Change Models: Lewis Theory, Chenery's Model
3. International Dependence Models: Neocolonial Dependence, False-Paradigm

UNIT III: Contemporary Models of Development [15 lectures]

1. Multiple Equilibria
2. Big-Push Theory
3. O-ring Theory

UNIT IV: Policy Intervention in Indian Context [15 lectures]

1. Role of Market, State and Economy
2. History of economic development in the Indian context: Five-year plans, Finance commissions, NITI Aayog

Basic Reference Books:

1. Todaro, Michael P. and S. C. Smith.Economic Development, 8ed. Delhi: Pearson Education, 2011.
2. Debraj Ray, Economic Development, Oxford Publication, New Delhi,
3. Meier, Gerald M. and James E. Rauch. Leading Issues in Economic Development, 8th ed., Oxford University Press, New Delhi:
4. Thirwal A.P. 'Growth and Development – with special reference to developing economies, Palgrave-Macmillan Publication, New Delhi.

MA   **Course: AECO0803**
Title: Econometrics

Learning Objectives:
1. To understand the fundamentals of Econometrics
2. To understand the classical linear regression model
3. To learn the usage of limited dependent variables
4. To learn the usage of simultaneous equation models

Number of Lectures: 60
UNIT I: The Classical Linear Regression Model and Failure of Classical Assumptions [15 lectures]

1. Estimation and Inference
2. Ordinary least squares (OLS) estimation: The Classical assumptions; Gauss-Markov theorem and properties of the OLS estimators,
3. Interval estimation and hypothesis testing; Interpreting regression results.
4. Heteroscedasticity
5. Autocorrelation and Multicollinearity: Causes, consequences and detection methods
6. Remedial measures

UNIT II: Regression Analysis with Dummy Variables [15 lectures]

1. Interpretation of coefficients on dummy explanatory variables
2. Interactions involving dummy variables and use of dummy variables in seasonal analysis
3. Piece wise regression analysis: The dummy variable alternative to chow test.

UNIT III: Limited Dependent Variable [15 lectures]

1. Linear Probability Model; Problems relating to LPM
2. Logit and Probit Model
3. Multinomial Choice Models: Ordered Response Model; Unordered Response Model
4. Censored and Truncated Regression Model

UNIT IV: Simultaneous Equation Models (SEM) [15 lectures]

1. Introduction, Structural, reduced form and final form model
2. Rational behind the use of SEM - simultaneous bias and inconsistency of the OLS estimator
3. Problem of Identification: Rank and Orders conditions
4. Methods of estimation: ILS, 2SLS, Instrumental Variable

Basic Reference Books:

1. Wooldridge J., Introductory Econometrics: A Modern Approach, South-Western College Pub.
2. Studenmund, A.H., Using Econometrics: A Practical Guide, Addison Wesley Publishing Company. Boston,
3. Gujarati, Damodar, Basic Econometrics, 4th Edition, Tata McGraw Hill Publishing Company, New Delhi
4. Johnston and Dinardo, Econometric Methods, 4th Edition McGraw-Hill International Edition

MA   **Course: AECO0804**

Title: Game Theory

Learning Objectives:
1. To understand the fundamentals of Game Theory
2. To understand the difference between static and dynamic games with complete information
3. To understand the difference between static and dynamic games with incomplete information
4. To learn the practical usage of the theory

Number of Lectures: 60
UNIT I: Static Games with Complete Information [15 lectures]

1. Strategic Form
2. Nash Equilibrium
3. Rationalizability and Correlated Equilibrium

UNIT II: Dynamic Games with Complete Information [15 lectures]

1. Extensive form games
2. Backward Induction and Subgame Perfection
3. Multi-stage games with observed actions

UNIT III: Static Games with Incomplete Information [15 lectures]

1. Bayesian games and Bayesian Equilibrium
2. Bayesian games and Mechanism Design
3. Correlated types, risk aversion, Informed Principal

UNIT IV: Dynamic Games with Incomplete Information [15 lectures]

1. Equilibrium refinements
2. Reputation Effects
3. Sequential Bargaining

Basic Reference Books:

1. D. Fudenberg and J. Tirole, Game Theory, MIT Press, 1991
2. Martin Osborne, An Introduction to Game Theory, Oxford University Press, 2003
3. Theory of Games and Economic Behavior (Paper) Paperback 1992 by J Von Neumann (Author)
4. Games and Decisions (Dover Books on Mathematics) Paperback 1989 by Robert Duncan Luce (Author), Howard Raiffa
5. Gladiators, Pirates and Games of Trust How Game Theory, Strategy and Probability Rule Our Lives by Haim Shapira