

# **Department of Economícs** (Autonomous)



M.A. (Credit Based)

Uníversíty of Mumbaí



# **ABOUT THE DEPARTMENT**

The Department of Economics was established in 1921 and has been making significant contributions to academics and policy making at the local and national level. The research output is noted for its innovativeness, relevance and sensitivity to current socio-economic problems.

The Department has a distinguished legacy of teachers and intellectuals such as Professors C.N. Vakil, M.L. Dantwala, D.T. Lakdawala, P.R. Brahmananda, Kanta Ranadive, T.S. Papola, P.R. Panchamukhi, V.R. Panchamukhi, Ranganath Bhardwaj, J.C. Sandesara, L.K. Deshpande, D.M. Nachane, M.J.M. Rao, among other stalwarts such as Professor V.K.R.V. Rao, Dr. Bimal Jalan, and Lord Meghnad Desai. The members of the Department of Economics are consultants to international bodies like the IMF, the World Bank, UNDP, UNW, ILO, and government bodies like the Planning Commission, the Reserve Bank of India, as well as to various state governments and local bodies. The private sector too has benefitted immensely from the pool of expertise in the Department. In addition, the faculty publish widely in reputed national and international and have made seminal contributions in their respective fields. In recognition of this contribution the Planning Commission, the Reserve Bank of India, as well as private institutions and corporate organisations have instituted a total of five Chairs in the Department *viz*. the RBI Chairs in Monetary Economics and Dr. Babasaheb Ambedkar Chair in Political Economy, the Walchand Hirachand Unit in Transport Economics, the Dr. Vibhuti Shukla Unit in Urban Economics and Regional Development, Dr. D.T. Lakdawala Chair in Planning and Development.

The Department of Economics is well connected with other academic institutions and has signed several national and international memoranda of understanding. These make it possible to exchange expertise on several key areas and to have research collaborations. Academic visitors are also invited to spend time at the Department and impart the benefit of their learning.

Due to its academic credentials, the Department of Economics has been recognised as a Centre for Advanced Studies in Economics by the University Grants Commission since 1963. A Centre for Women's Studies is also functional in the Department. The Department has been granted an Autonomous status which is a further recognition of its stellar role on the Indian academic map. The Department does not believe in resting on its laurels. Regular attempts are made to make qualitative improvements in teaching and research standards. Since 2007, a M.A. programme with a choice-based credit system has been instituted. In addition, the Department of Economics has a thriving Ph.D. programme. The facilities available include a well-appointed computer laboratory where students are imparted hands-on training in the latest software; work stations; well-designed conference rooms, as well as a stimulating departmental library. However, the greatest asset of the Department is its set of competent and experienced teachers who are regularly available to the students in an atmosphere of warm cordiality.

# FACULTY AND RESEARCH STAFF

J.C.Sandesara Professor Emeritus Area on Interest: Economics of Industry

Neeraj Hatekar Professor and Director, Department of Economics (Autonomous) M.A. (Mumbai), Ph.D. (Mumbai) Areas of Interest: Economic History, Applied Econometrics

S.Sriraman Professor Walchand Hirachand Unit in Transport Economics M.A. (Delhi), Ph.D. (IIT Kanpur) Areas of Interest: Transport Economics, Applied Macroeconomics, Regional Economics

Romar Correa Professor RBI Unit in Monetary Economics M.A. (Mumbai), Ph.D. (Mumbai) Areas of Interest: Monetary Economics, Macroeconomics, Financial Economics, Game Theory

Abhay Pethe Professor Dr.Vibhooti Shukla Unit in Urban Economics and Regional Development M.Sc. (Mathematics), M.A. (Mumbai), Ph.D. (Mumbai) Areas of Interest: Urban Economics, Governance, Regional Development, Public Economics

L.G.Burange Professor M.A. (G.I.P.E., Pune), M.Phil. (G.I.P.E., Pune), Ph.D. (G.I.P.E.,Pune) Areas of interest: International Economics, Industrial Economics

Dolly Sunny Professor M.A. (Kerala), Ph.D. (Mumbai) Areas of Interest: Quantitative Economics, Development Economics, Labour Economics, Demography

Mala Lalvani Professor RBI Dr. Babasaheb Ambedkar Chair in Political Economy M.A. (Mumbai), Ph.D. (Mumbai) Areas of Interest: Public Economics, Political Economy, Public Choice, Applied Econometrics Manisha Karne Professor M.A. (Mumbai), Ph.D. (Mumbai) Areas of Interest: Development Economics, Social Infrastructure, Transport Economics

A.M. SwaminathanAssociate ProfessorM.A. (Mumbai), Ph.D. (Mumbai)Areas of interest: Regional Economics, Input-Output Analysis,Data Envelopment Analysis, Quantitative Economics

Arun Pawar Assistant Professor M.A. (Mumbai) Areas of Interest: Economics of Agriculture, Labour Economics

Swati Raju Associate Professor M.A. (Economics), Ph.D. (Economics) Areas of Interest: Public Economics, Applied Econometrics, Financial Economics, Gender Economics

Suresh Maind Associate Professor M.A. (Aurangabad), Ph.D. (Aurangabad) Areas of Interest: Infrastructure Economics, Agriculture Economics, Monetary Economics

G. Bharathi Kamat
Associate Professor
M.A., M.Phil, Ph.D (Osmania University, Hyderabad)
Areas of Interest: Industrial Economics,
International Economics, Economics of Intangibles

Medha Tapiawala Associate Professor M.A. (Mumbai), Ph.D. (Mumbai) Areas of Interest: Banking and Microfinance, Entrepreneurship, Behavioural Economics

Satyanarayan Kothe Assistant Professor M.A. (SRTM University, Nanded), Ph.D. (Mumbai) Areas of Interest: Knowledge Economy, Economics of Services, Mathematical Economics, Quantitative Economics

Anuradha Patnaik Assistant Professor M.A. (Nagpur University), Ph.D. (IIT Mumbai) Areas of Interest: Applied Econometrics, Monetary Economics, Open Economy Macroeconomics

For further details about the faculty, including detailed CVs, please check: http://www.mu.ac.in/arts/social\_science/eco/faculty.html

# **RESEARCH STAFF**

Nandakumar Jadhav M.S.W. (Aurangabad) Research Investigator

Sandhya Mhatre M.A. (Mumbai), Ph.D. (Mumbai) Research Investigator

Ravindra Tambe M.A. (Kolhapur), B.Ed. Research Assistant

Vinay S. Verma M.A. (Mumbai) Research Assistant

Vinay S. Shelke M.A. (Pune) Research Assistant

# The M.A. Programme

# (Credit Based)

# Highlights:

The highlights of the programme along with the syllabi are presented here while the detailed Rules and Regulations are presented in the next Section.

- A student enrolled for the credit-based programme must acquire a total of seventy-two credits over four semesters.
- A semester is roughly of fifteen weeks duration.
- All the courses taught in Semesters I and II are core courses (compulsory courses)
- A four-credit course is taught for 48 hours during the semester, while a two-credit course is taught for 24 hours.
- The hours allocated to the teaching of each module within a course are indicated against the respective modules.
- The core courses in Semester I are: Microeconomics I, Macroeconomics I, Basic Econometrics, Mathematics for Economists, Indian Economy I. All but the last are four credit courses while the last is a two credit course. In all eighteen credits have to be earned in Semester I.
- The core courses in Semester II are: Macroeconomics II, Microeconomics II, Public Economics, Development Economics and Indian Economy II. All but the last are four credit courses while the last is a two credit course. In all eighteen credits have to be obtained in Semester II.
- For all core courses in Semesters I and II, there is a mid-semester examination of forty marks and an end-semester examination of sixty marks. The mid-semester examination is usually held around the eighth week after the commencement of the semester.
- The remaining thirty-six credits are to be obtained from a list of electives, including some credits that can be obtained from taking courses offered by other departments. The list of elective courses on offer for an academic year will be announced at the beginning of each year.
- The standard evaluation pattern for the elective courses consists of a mid-semester examination of forty marks and an end semester examination of sixty marks.

- The Evaluation Pattern for some elective courses differs from the standard pattern. The evaluation pattern for each course is mentioned in the top right-hand corner of the syllabus page for the respective course. Please note that the evaluation pattern for specific electives is subject to change from year to year.
- Some courses are seminar courses. Students will obtain part of the designated credits by submitting an assignment and making a presentation based on it, for which they will be graded by a group of faculty members.
- A limited number of credits can be obtained by doing courses offered by other departments. The details of such courses can be had from the Department office at the beginning of Semesters III and IV.
- The references given for each course are subject to modifications on a regular basis.
- The detailed rules for the credit-based system are given in the following Section and students are advised to familiarise themselves with them.
- The admission to the credit-based course is based on the student's performance in an entrance examination. Details can be had by visiting the Department website: <a href="http://www.mu.ac.in/arts/social\_science/eco/entrexam.html">http://www.mu.ac.in/arts/social\_science/eco/entrexam.html</a>

# Microeconomics I (ECO 101)

# When offered: Semester: I Number of Credits: 4

**Preamble**: This is a one-semester course taught over 48 one-hour sessions. The course is divided into 4 modules of 12 sessions each. The method of instruction will be exclusively lectures. The objective is to introduce students to modern microeconomics in a gradual fashion, leading up to Microeconomics 2, which will be offered in the second semester. Microeconomics 1 will cover the traditional approaches to microeconomics, assuming complete markets, nonstrategic, utility- maximising individuals, as well as profit-maximising firms in a competitive market setup with symmetric, perfect and complete information.

Prerequisites: Undergraduate level microeconomics, Basics of mathematical economics.

# Module 1: Utility Analysis: (12 Hours)

Choice, preference, rational choice and revealed preference, existence of the utility functionconsumer's problem and the demand function, expenditure and indirect utility functions

# Module 2: Demand Analysis: (12 Hours)

Demand function, income-compensated demand functions, Slutsky matrix, and their properties, measurement of efficiency, duality, measuring of welfare effects of a price change

# Module 3: Production Analysis: (12 Hours)

Production: returns to scale and varying proportions, production functions (Cobb Douglas, CES) and input demand functions and their properties, costs, Derivation of SR and LR supply curve, classical model of the equilibrium of the firm, optimal size of the firm, duality in production, profit function and its properties,

# **Module 4: Perfect Competition, Walrasian General Equilibrium in a Pure Exchange Economy:** (12 Hours)

Excess demand function and its properties, tâtonnement process and the proof of existence of general equilibrium (using Brouwer's fixed point theorem), core and equilibria, the first and the second fundamental theorem of welfare economics.

# **References:**

- 1. Gravelle, H. and R. Rees, Microeconomics, Pearson Edition, 2004
- 2. Jehle, G.A. and P.J. Reny, Advanced Microeconomic Theory, Addison-Wesley Longman, 2000
- 3. Mas-Colell, A., M.D. Whinston, and J. Green, Microeconomic Analysis, Oxford University Press, 2005
- 4. Varian, H.R., Microeconomic Analysis, WW Norton & Co., 1992

# Macroeconomics I (ECO 102)

#### When Offered: Semester I Number of Credits: 4

**Preamble:** Macroeconomics I is an introduction to aggregative relationships in an economy. Since it is the first comprehensive glimpse of the subject by a number of students, the course effectively, but rigorously, covers the syllabus of an undergraduate course. At the same time, the texts twist and turn the familiar material to open up novel possibilities. The books are only indicative and others may be used. The treatment can be graphical. However, as technical skills develop, particularly by the last module, mathematical optimization techniques might be used.

# Module 1: Macroeconomic Accounting: (12 Hours)

Stocks and Flows; Output and Income; Income and Expenditure; Saving and Investment; Real and Nominal Income; The open economy

# Module 2: Determination of National Income and the Price Level: (12 Hours)

The Keynesian Model: IS-LM Analysis, Fiscal and Monetary Policy The role of expectations: The AS-AD Model; Inflation and Unemployment

# Module 3: The Open Economy: (12 Hours)

Definitions and Concepts: The trade balance, Balance of Payments, Capital Mobility Automatic adjustment, the classical approach Fixed Exchange Rates: The IS-LM-BP model, Monetary and Fiscal Policy Flexible Exchange Rates: The IS-LM-BP model, Monetary and Fiscal Policy

# Module 4: Microfoundations of Macroeconomics: (12 Hours)

Consumption: Consumption smoothing, temporary and permanent shocks Investment: The optimal capital stock, irreversibility and investment The demand for money: Money, bonds, and private wealth, financial assets Seigniorage: The optimal level of seigniorage

# **References:**

- 1. Carlin, W. and S. David, Macroeconomics, Oxford University Press, 2007
- 2. D'Souza, E., Macroeconomics, Dorling Kindersley (India) Pvt Ltd, 2012
- 3. Michl, T., Macroeconomic Theory, PHI Learning, 2009

# Mathematics for Economists (ECO 103)

# When Offered: Semester I Number of Credits: 4

**Preamble**: The orientation follows Avinash Dixit's classic on the subject. Thus, working backwards from the requirements of dynamic optimization, static optimization is covered and, over the first two modules, the mathematical background required to appreciate the last two modules. The texts are illustrative and any proper subset may be used. The expectation is that the instructor will sketch/prove theorems depending on the level of the class and focus on problems drawn from the microeconomics and macroeconomics courses.

# Module 1: Background I: (12 Hours)

Elements of set theory: R and R<sup>n</sup>; sequences & limits; open & closed sets; compact sets Functions: continuity; linear functions; concave and quasi concave functions Vectors and matrices: the determinant; quadratic forms

# Module 2: Background II: (12 Hours)

The derivative: partial derivatives; implicit differentiation; total derivatives Unconstrained and constrained optimization; concave programming Differential Equations: stability

# Module 3: Static Optimization: (12 Hours)

Integration: definite and indefinite integrals; integration by parts The Kuhn-Tucker theorem

# Module 4: Dynamic Optimization: (12 Hours)

Calculus of Variations The Maximum Principle Dynamic Programming

# **References:**

# **Essential Readings**

- 1. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw-Hill, 2005
- 2. \_\_\_\_\_, Elements of Dynamic Optimization, McGraw-Hill, 1992
- 3. Simon, C.P. and B. Lawrence, Mathematics for Economists, Viva Books Pvt Ltd, 1994
- 4. Sydsaeter, K., P. Hammond, and S. Arne, Essential Mathematics for Economic Analysis, Pearson, 2012

# **Additional Readings**

Binmore, K., Foundations of Analysis, Books 1 & 2, Cambridge University Press, 1980 Dixit, A., Optimization in Economic Theory, Oxford University Press, 1990

# **Basic Econometrics** (ECO 104)

# When offered: Semester – I Number of Credits: 4

**Preamble:** The course is designed to introduce students to elementary econometric methods and their applications. The teaching will emphasize a combination of theory and empirical applications.

# Module 1: Linear Regression Model: (12 Hours)

Two variable model:- estimation of parameters, properties of pestimators, hypothesis testing and model validation. Extension to multiple linear regression model

# Module 2: Failure of classical assumptions: (12 Hours)

Heteroskedasticity, autocorrelation and multicollinearity: implications, corrective measures, Outliers:-implication and detection, non-normality of errors and bootstrapping of confidence intervals

# Module 3: Systems of equations: (12 Hours)

Endogeneity and specification issues, Structural form and reduced form models, identification, instrumental variables and two stage least squares

# Module 4: Introduction to time series: (12 Hours)

Stationary and non-stationary time series, spurious regression, tests of stationarity, optimal forecasts and methods of forecast evaluation, introduction to ARIMA models

# **References:**

- 1. Wooldridge, J., Introductory Econometrics: A Modern Approach, Cengage Learning, 2009
- 2. Kennedy, P., A Guide to Econometrics, MIT Press, 2005

# Indian Economy Paper I – Macroeconomic Perspectives (ECO 105)

When offered: Semester I Number of Credits: 2

**Preamble:** Indian Economy will be covered through two core courses of two credits each, one each in the first two semesters. It has been found that many economics students are not well informed on issues of the Indian economy. It was thought that apart from integrating applications of theoretical tools to the Indian economy within other core papers and electives, wherever possible, there should be separate treatment of perspectives on and issues relating to the Indian economy. These two courses have hence been formulated with the objective of equipping the students to meaningfully participate in the debates regarding issues and concerns about the Indian economy. The approach adopted is to go from the macro to the sectoral aspects of the economy. The first paper will hence provide a macroeconomic perspective of the economy, whereas the second one will deal with sectoral issues. The scope of the syllabi for the courses will be determined by the specified readings.

# Module 1: Growth and Inflation: (6 Hours)

National Accounts Statistics for India – GDP deflator and Measures of Inflation – Macro balances of the economy: Savings and Investment in India – Growth rates of national income: Comparisons over time and across countries, Effect of compounding on the standard of living – Sectoral composition of output and growth: Services-led growth – Regional variations in growth

# Module 2: Poverty and Human Development: (6 Hours)

Measurement of poverty in India and the debate regarding extent of poverty in India – National Sample Surveys – Human development indices in India, including Gender-related Development Index, and regional variations therein – Policies of inclusive growth

# Module 3: Balance of Payments and Budgets: (6 Hours)

- A. Components of Balance of Payments (BOP) Exchange rate policies in recent years Capital inflows and Sterilized intervention in the foreign exchange market
- B. Components of Recent Budgets

# Module 4: Policy Reforms: (6 Hours)

Fiscal Reforms: State of Fiscal Responsibility Legislations and FRBMA – Goods and Services Tax (GST) – Direct Tax Code (DTC); Centrally-sponsored schemes; Changing Stance of Monetary Policy – Monetary Targeting – Inflation Targeting – Multiple/ Lead Indicator Approach – Systemic Stability

# **References:**

- 1. Mohan, R., "Growth Record of the Indian Economy 1950-2008: A Story of Substantial Savings and Investment," in Uma Kapila (ed), *Indian Economy since Independence*, New Delhi: Academic Foundation, 2009, pp. 683-712, (Module 1)
- 2. Kapila, U., "Growth and Structural Change since 1950," in Uma Kapila (ed), *Indian Economy since Independence*, New Delhi: Academic Foundation, 2009, pp. 683-712, (Module 1)
- 3. Gordon, J. and R. Banga, "Understanding India's Services Revolution," *IMF Working Paper*, No. 171, Washington, DC: IMF, 2004, (Module 1).
- 4. Deaton, A. and J. Dreze, "Poverty and Inequality in India: A Re-Examination," Chapter 18 in Angus Deaton and Valerie Kozel (eds), *The Great Indian Poverty Debate*, New Delhi: Macmillan, 2005, pp.428-465. (Module 2)
- 5. UNDP, Human Development Report 2009, New York: OUP, 2010
- 6. Radhakrishna, R., C. Ravi, and B. Sambi Reddy, "Can We Really Measure Poverty and Identify Poor When Poverty Encompasses Multiple Deprivations?" *Working Paper*, No. WP 02/2010, Hyderabad: Centre for Economics and Social Studies (CESS) 2010, (Module 2).
- 7. Acharya, S., "Macroeconomic Performance and Policies, 2000-2008," in Shankar Acharya and Rakesh Mohan (eds), *India's Economy, Performance and Challenges: Essays in Honour of Montek Singh Ahluwalia*, New Delhi: OUP, 2010, pp. 39-81 (Module 3).
- 8. GOI, *Economic Surveys* and *Budget Papers*, Various Recent Years (Module 3).
- 9. GOI, Report of the Task Force on Implementation of GST, New Delhi, 2009 (Module 4)
- 10. Lalwani, M., "Persistence of Fiscal Irresponsibility: Looking Deeper into the Provisions of FRBM Act," *Economic and Political Weekly*, Vol. 44 (37), Sept 12, 2009 (Module 4).
- 11. Mohan, R., "India's Financial Sector and Monetary Policy Reforms: Fostering Growth while Containing Risk," in Shankar Acharya and Rakesh Mohan (eds), *India's Economy, Performance and Challenges: Essays in Honour of Montek Singh Ahluwalia*, New Delhi: OUP, 2010, pp. 149-179 (Module 4)
- 12. RBI, Annual Reports, Various Recent Years (Module 4)

# Microeconomics II: Games, Information and Industrial Organisation (ECO

106)

#### When Offered: Semester II Number of Credits: 4

**Preamble:** The course is designed to introduce students to methods of analysing strategic microeconomic behaviour in the context of asymmetric and incomplete information.

# Module 1: Introduction to Game Theory (12 Hours)

Normal and extensive form games, pure and mixed strategy Nash equilibria, sequential games, backward induction and sub-game perfect Nash equilibria, Cournot model, Bertrand model, Stackleberg model.

# Module 2: Economics of Information (12 Hours)

Optimal contracts under symmetric and complete information, moral hazard and optimal contract design, Bayesian games and Bayesian Nash equilibria, Adverse Selection, Signalling and Pooling equilibria.

# Module 3: Industrial Organisation-1: (12 Hours)

Market power and dominant firms, non-linear pricing and price discrimination, product quality, welfare implications of monopoly.

# Module 4: Industrial Organisation-II: (12 Hours)

Dynamic models of oligopoly, Product Differentiation, Address Models and Strategic Behaviour, Product Differentiation in vertically integrated firms.

# **References:**

- 1. Gibbons R., A Primer in Game Theory, Princeton University Press, 1992
- 2. Church, J.R. and R. Ware, Industrial Organisation: A Strategic Approach, McGraw Hill, 2000
- 3. Maco-Staedler, I. and D. Perez-Castrillo, Economics of Information and Contracts, OUP, 2001
- 4. Binomre, K., Game Theory: A Very Short Introduction, OUP, 2010

# Macroeconomics II (ECO 107)

# When Offered: Semester II Number of Credits: 4

**Preamble**: Macroeconomics-II is modern macroeconomics in that it deals with the New Classical and New Keynesian frameworks. By this time, the compulsory mathematics course will have been covered and students can appreciate the techniques of dynamic optimization that underlie the course. Here too, the texts are only suggestive and others may be used.

# Module 1: Imperfectly flexible prices: (12 Hours)

Price-setting under imperfect competition Menu costs, real rigidity and neutrality Quadratic price adjustments

# Module 2: New Classical Economics: (12 Hours)

The DSGE model Wealth Effects and the Government Budget Constraint; money/bond finance The government budget deficit; Ricardian Equivalence

# Module 3: New Keynesian Economics: (12 Hours)

Disequilibrium, multiple equilibria, hysteresis Reconstructing the Keynesian multiplier The NK model of inflation

#### Module 4: Macroeconomic Policy: (12 Hours)

Rules versus Discretion, Credibility & Reputation, Dynamic Inconsistency Banks, Financial Intermediaries and Unconventional Monetary Policy Inflation Targeting and Exchange Rates

# **References:**

- 1. Heijdra, B.J. and F. Ploeg, Foundations of Modern Macroeconomics, Oxford University Press, Oxford, 2002
- 2. Romer, D., Advanced Macroeconomics, McGraw-Hill, Fourth Edition, 2012
- 3. Wickens, M., Macroeconomic Theory and the Dynamic General Equilibrium Approach, Princeton University Press, 2011

# **Development Economics** (ECO 108)

# When Offered: Semester II Number of Credits: 4

**Preamble:** The objective of the course is to introduce students to existing academic approaches that grapple with the complexity of developing countries. To that end, the syllabus presents some of the major economic ideas in development thinking, and builds on and extends the microeconomic and macroeconomic tools developed in earlier core courses, additionally incorporating alternative perspectives that merit close scrutiny.

# Module 1: Concepts and measures of Growth and Development: (12 Hours)

Developments in economic thought – History, expectations and development - Economic growth and structural change – Capabilities, entitlements and deprivation - Inequality and growth – Measurement of Inequality and poverty- Measurement of development - HDI, GDI, etc.- Role of market and state

# Module 2: Modern theories of Growth and Distribution: (12 Hours)

Harrod-Domar Model of growth– Solow model of growth- Approaches to technical change – Convergence – Endogenous growth models of Romer and Lucas-Human capital

# Module 3: Microeconomics of Development: (12 Hours)

Segmentation of rural land, labour, capital and credit markets –microfinance- Market interlinkages – land markets-labour markets and households–Credit market-microfinance- The household model of fertility decisions- Institutions and development

# Module 4: Macroeconomics of Development: (12 Hours)

Environment and development- Development and the constraint of natural resources -Environmental problems in Economic Development—Environment and Sustainable Development-Trade and Development – Trade and foreign exchange –-Role of international financial and trade institutions – Structural adjustment and stabilization.

# **References:**

# **Essential Readings**

- 1. Basu, K., Analytical Development Economics, OUP, New Delhi, 1998
- 2. Ray, D., Development Economics, OUP, New Delhi, 2004

# **Additional Readings**

- 1. Agénor, P. and P.J. Montiel, Development Macroeconomics, Princeton University Press, 1999
- 2. Bardhan, P. and C. Udry, Development Microeconomics, OUP, Oxford, 1999
- 3. Behrman, J.R. and T.N. Srinivasan, Handbook of Development Economics, Elsevier, 1995
- 4. Foley, D.K. and T.R. Michl, Growth and Distribution, Harvard University Press, 1999
- 5. Hayami, Y. Development Economics: From the Poverty to the Wealth of Nations, OUP, 2001
- 6. Human Development Reports (Several Years)
- 7. Sen, A. Commodities and Capabilities, OUP, New Delhi, 1999

# **Public Economics** (ECO 109)

# When offered: Semester II Number of Credits: 4

**Preamble:** The focus of the course, which draws on Microeconomic theory, is on the development of analytical tools and their application to key issues relating to the spending, taxing and financing activities of government. References for Module 4 may change from year to year.

# Module 1: Government in a Market Economy: (12 Hours)

Theorems of Welfare Economics: Implications, Lump Sum Taxes and Transfers Rationale for State Intervention: Market Failures and Externalities, Tax and Regulation, Distribution, Social Choice, Voting Rules, Arrow Impossibility Theorem

# Module 2: Public Expenditure: Rationale and Evaluation: (12 Hours)

Public Goods: Pure and Local, Optimal provision, Lindahl's Voluntary Exchange Approach, Preference Revelation mechanism, Private provision of Public Goods, Merit Goods, Club Goods Evaluation of Government Expenditure: Elements of Cost-Benefit analysis

# Module 3: Taxation: (12 Hours)

Basic Concepts of Tax Theory: Direct vs. Indirect Taxes, Ability to Pay, Horizontal and Vertical Equity. Commodity Taxation: Tax Rules, Optimal Commodity Taxation, Public Sector Pricing.

Income Taxation: Equity and Efficiency, Taxation and Labour Supply, Optimal Income Taxation (linear and non-linear). Tax Evasion: Basic Model, Auditing and Punishment.

# Module 4: Reforms and Government: (12 Hours)

Fiscal Rules: Rationale, International and Indian Experience. Decentralisation: Decentralisation Theorem. India's Federal Structure: Taxation powers, Expenditure responsibilities, Intergovernmental transfers, VAT, GST

# **References:**

- 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. Oates W., Fiscal Federalism, New York: Harcourt, Brace Jovanovich, 1972
- 6. Purohit M., Value Added Tax, Gayatri Publications, 2001
- 7. Tresch R., Public Finance: A Normative Theory, Academic Press, 1995

# Indian Economy Paper II – Sectoral Issues (ECO 110)

# When offered: Semester II Number of Credits: 2

**Preamble:** The sectoral issues will be dealt with by teachers who are specialized in the respective sectors. Issues considered will be based on two or three readings identified by the teacher and communicated to the students at the beginning of Semester II.

- 1. Agriculture (4 Hours)
- 2. Industry and Infrastructure (4 Hours)
- 3. Services Sector (4 Hours)
- 4. Financial Sector (4 Hours)
- 5. External Sector: International Trade (4 Hours)
- 6. Informal Sector and Labour Markets (4 Hours)