

Sem-II

BA(P) Major for Economics - Basic Statistics for Economics – DSC-4

Unit – I: Introduction and Overview (09 Hours)

Populations and Samples; Sample Statistics ; Descriptive Statistics

Unit – II: Basic Concepts of Probability (12 Hours)

Spaces and Events; Probability Concepts, Conditional Probabilities

Unit – III: Probability Distributions and Sampling (12 Hours)

Random Variables – Discrete and Continuous, Various Probability Distributions – Functions and Characteristics; Commonly used Distributions – Uniform, Binomial, Exponential, Poisson, Hypergeometric and Normal Random Variables Joint Distributions – Conditional Distributions and Expectations, Covariance and Correlation

Unit – IV: Estimation and Hypothesis Testing (12 Hours)

Properties of estimators , confidence intervals; defining statistical hypothesis , distributions of test statistics , Testing hypothesis related to population parameters; Type I and Type II parameters; • Power of test

Recommended Readings:

1. James McClave, P. George Benson, Terry Sincich (2017), Statistics for Business and Economics, Pearson Publication.
2. Anderson, D. R, Sweeny, D. J, et. al (2019), Statistics for Business and Economics, 13th edition, Cengage Learning.

Recommended Readings for teachers:

1. Sheldon Ross (2017), Introductory Statistics, 4th edition, Academic Press.
2. Larsen, R., Marx, M. (2011), An Introduction to Mathematical Statistics and its Applications, Prentice Hall.

ECON004 Introductory Macroeconomics (for Major and Minor courses only)

Unit 1. Introduction: What is macroeconomics? Macroeconomic issues in an economy Basic issues studied in macroeconomics.

Unit 2. National Income Accounting Measurements of gross domestic product - income, expenditure and the circular flow; related aggregates; real versus nominal GDP; price indices and real interest rate.

Unit 3. Simple Theory of Income Determination Simple Keynesian model of income determination; Actual and potential GDP; aggregate expenditure; consumption function; investment function; equilibrium GDP; Concept of multiplier; government sector and impact of changes in government expenditure and taxes.

Unit 4. Money in a Modern Economy Concept of money in a modern economy; monetary aggregates; functions of money; demand for money; money supply and credit creation; monetary policy tools.

Readings:

1. Andrew B. Abel, Ben S. Bernanke and Dean Croushore (2011). *Macroeconomics*, 7th edition, Pearson.
2. Oliver Blanchard and David R. Johanson (2013). *Macroeconomics*, 6th edition, Pearson 3. Rudiger Dornbusch, Stanley Fischer and Richard Startz (2011). *Macroeconomics*, 11th edition, McGraw-Hill.

Sem-IV

Syllabus

UNIT I: Short-run and medium-run equilibrium (15 hours)

The labour market, Wage determination; wages, prices, and unemployment; natural rate of unemployment; from employment to output, Derivation of aggregate supply curve, Interaction of aggregate demand and supply to determine equilibrium output, price level and employment.

UNIT II: Philips Curve and Theory of Expectations (15 hours)

Inflation, unemployment and expectations, Phillips Curve; adaptive and rational expectations; policy ineffectiveness debate.

UNIT III: Microeconomic foundations of macroeconomic behaviours (15 hours)

Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; other theories of consumption expenditure. Investment: determinants of business fixed investment; residential investment and inventory investment.

Recommended readings

- Blanchard, O. (2006). *Macroeconomics*, 4th ed. Pearson Education.
- C.L.F. Attfield, D. Demery and N.W. Duck (1991). *Rational Expectations in Macroeconomics: an introduction to theory and evidence* 2nd Ed.
- Sheffrin, Steve (1996). *Rational Expectations*. 2nd ed., Cambridge University Press.
- Dornbusch, R., Fischer, S. (1994). *Macroeconomics*, 6th ed., McGraw-Hill.
- Branson, W. (2013). *Macroeconomics: Theory and policy*, 3rd ed, East West Press.
- Carlin, W and D Soskice (2007), *Macroeconomics: Imperfections, Institutions and Policies*, Indian Edition, OUP.

DISCIPLINE SPECIFIC CORE COURSE -12 (DSC-12): Introductory Econometrics

Syllabus

UNIT I: Regression Models (15 hours)

OLS estimators, hypothesis Testing using software and practical application; multiple Regression Model -estimation, Testing and practical application using software like GRETL/EViews/ R/Stata/EXCEL etc.

UNIT II: Qualitative variables and Estimation (15 hours)

Application of qualitative variables, Nonlinear Models, Applications of dummy variables

UNIT III: Issues with Classical Assumptions (15 hours)

Violation of normal distribution, Collinearity with independent variables, heteroscedasticity, autocorrelation, practical application

Recommended readings

- Christopher Dougherty, *Introduction to Econometrics*, 4th edition, OUP, Indian edition.
- Damodar Gujarati, *Econometrics by Example*, 2nd edition, Palgrave Macmillan, 2014.
- Gujarati, D., Porter, D. (2010). *Essentials of Econometrics*, 4th ed. McGraw-Hill.

GENERIC ELECTIVES (GE-4): PRINCIPLES OF MACROECONOMICS I

SYLLABUS OF GE-4

UNIT – I: Introduction (9 hours)

What is macroeconomics? Macroeconomic issues in an economy

UNIT – II: National Income Accounting (9 hours)

Concepts of GDP and National Income; measurement of national income and related aggregates; nominal and real income; limitations of the GDP concept

UNIT – III: Determination of GDP (9 hours)

Actual and potential GDP; aggregate expenditure; consumption function; investment function; equilibrium GDP; concepts of MPS, APS, MPC, APC; autonomous expenditure; Concept of multiplier

UNIT – IV: National Income Determination in an Open Economy with Government (9 hours)

Income determination; Fiscal Policy: impact of changes in government expenditure and taxes; net exports function; net exports and equilibrium national income.

UNIT – V: Money in a Modern Economy (9 hours)

Concept of money in a modern economy; monetary aggregates; demand for money; quantity theory of money; liquidity preference and rate of interest; money supply and credit creation; monetary policy.

Practical component (if any) - NIL

Recommended readings

- Andrew Abel, Ben Bernanke and Dean Croushore (2011). *Macroeconomics* (7th edition). Pearson
- Richard T. Froyen (2013). *Macroeconomics: Theories and Policies* (10th ed.), Pearson.
- Blanchard, O. (2018). *Macroeconomics* (7th edition). Pearson
- Blanchard, O. (2006). *Macroeconomics* (6th edition). Pearson
- Dornbusch, R., and S. Fischer. (1994). *Macroeconomics* (6th edition). McGraw- Hill
- R. Dornbusch, S. Fischer and R. Startz. (2018). *Macroeconomics* (12th edition). McGraw-Hill

Sem-VI

DSE: Economics Development & Policy in India II

Unit 1: MACROECONOMIC POLICIES AND THEIR IMPACT

Macroeconomic policies and their impact: fiscal policy; financial and monetary policies. 1. “Requisites of Macroeconomic Stability”, Chapter 8 in Vijay Joshi (2017), *India’s Long Road: The Search for Prosperity*, Oxford University Press. 2. Pami Dua (2020), Monetary policy framework in India, *Indian Economic Review*, Springer, vol. 55(1), pages 117-154 3. *De, Supriyo, (2012), *Fiscal Policy in India: Trends and Trajectory*, Working Papers, eSocialSciences, <https://EconPapers.repec.org/RePEc:ess:wpaper:id:4751>

Unit 2 - AGRICULTURE

Agriculture Policies and performance; Production and productivity; credit; labour; markets and pricing; land reforms; regional variations. 1. Maitreesh Ghatak (2012), *Land Reforms in K. Basu and A. Maertens (eds), 2012, New Oxford Companion to Economics in India* (referred to as NOCE hereafter), pp. 12-14 2. A. Vaidyanathan (2012), *Irrigation*, in NOCE. 3. Chand, R., R. Saxena and S. Rana (2015), *Estimates and Analysis of Farm Income in India: 1983-84 to 2011-12*, *Economic and Political Weekly*, Vol. 50, No.22, May 30, pp. 139-145. 4. Dr Anil K. Sharma, *Transformation in Indian Agriculture, Allied Sectors, and Rural India: Is there less krishi in Bharat?*, NCAER(2015) 5. *Shoumitro Chatterjee and Devesh Kapur, (2017), *Six Puzzles in Indian Agriculture*, *India Policy Forum*, 13, (1), 185-229 6. *Amit Bhaduri (2012), *Productivity and Production Relations: The Case of Indian Agriculture*, in Amit Bhaduri, ‘*Employment and Development*’, Oxford University Press 7. *S. Nair and L. Eapen (2015), *Agrarian Performance and Food Price Inflation in India, Pre and Post- Economic Liberalization* in *Economic and Political Weekly*, August 1, 2015

Unit 3: INDUSTRY

Industry Policies and performance; production trends; small scale industries; public sector; foreign investment, labour regulation 1. R. Nagaraj (2017), *Economic Reforms and Manufacturing sector Growth*, in *Economic and Political Weekly*, 14 Jan 2017 2. Pulin B. Nayak (2012), *Privatization*, in NOCE 3. Nagesh Kumar, 2014, *FDI and Portfolio Investment Flows and Development: A Perspective on Indian Experience* in Uma Kapila (ed.), *Indian Economy Since Independence*, 26th edition, 2015-16. Academic Foundation, Delhi, Ch. 40 or 28th edition Ch. 35 4. *Clothes and Shoes: Can India Reclaim Small Scale Manufacturing?* in *Economic Survey 2016-17 Vol. I*, Ch 7 5. *Industrial Development and Policies since Independence*, Editorial Notes (pages 635-669), in Uma Kapila (ed.), *Indian Economy Since Independence*, 28th edition, Academic Foundation, Delhi

Unit 4 - SERVICES AND TRADE

Service and Trade Trends and performance; trade and investment policy 1. Rupa Chanda, “*India’s Service Sector*” Chapter 29 in Uma Kapila (in Uma Kapila (ed.), *Indian Economy Since Independence*, 28th edition, Academic Foundation, Delhi, 2. Shoumitro Chatterjee, Arvind Subramanian (2020), *India’s Inward (Re) Turn: Is it Warranted? Will it Work?*, Ashoka Centre for Economic Policy Policy Paper No. 1, October, 2020 3. *Harsha Vardhana Singh.: “*Trade Policy Reform in India Since 1991*,” *Brookings India Working Paper 02*, March 2017 Note: Starred chapters (*) are optional and advanced reading material.

Skill-Enhancement Elective Courses (SEC)

Basic Computational Techniques for Data Analysis:

Unit -1 Introduction to MS Excel: Spreadsheet basics and inputting of data, word processing and presentation of data using graphs and tables.

Unit - II a) Review of concepts (i) Measures of Central Tendency - Mean, Median and Mode; Arithmetic Mean, Geometric Mean and Harmonic Mean; (ii) Measures of Dispersion – Standard Deviation and Variance; (iii) Skewness; (iv) Kurtosis. b) Introduction to calculation of financial formulae, net present value (NPA), internal rate of return, future value, Equated monthly instalment (EMI), computed growth rate. c) Using spreadsheet to perform the above mathematical/statistical/financial functions.

Unit III a) Review of the concept of Correlation and Rank Correlation. b) Introduction to simple Ordinary Least Squares (OLS) in two variable case (one dependent and one explanatory variable); Testing of hypotheses related to regression coefficients; Goodness of fit (R^2); Reporting the estimation results. c) Using of MS Excel/GRETLM (Free ware) for above.

Unit IV Introduction to economic and business data sets available in the public domain, such as from the NSE, BSE, RBI, MOSPI, etc. Any of these datasets may be used for demonstrating the statistical concepts studied in the course

Unit V Preparation of a project report based on data available in the public domain, using concepts studied in units II and III.

References:

1. Spreadsheet-Microsoft office/Open office manual.
2. GRETLM-Manual.
3. P.H. Karmel and M. Polasek (1978), Applied Statistics for Economists, 4th edition, Pitman.
4. M.R. Spiegel, L.J. Stephens and N. Kumar (2010), Statistics, 4th edition, Schaum Series, McGraw Hill

Generic Elective (GEC) [for B.A./B.Com (Program)] Semester: VI

The Indian Economy (PGE 62)

Unit 1. Historical & General Overview

1. Chandra, Bipan (1992). “The Colonial Legacy” in Bimal Jalan (ed) The Indian Economy: Problems and Prospects, Viking; Penguin Books.
2. Dreze, Jean and Amartya Sen (2013). An Uncertain Glory: India and its Contradictions, Princeton University Press. {Referred to as Dreze and Sen (2013) hereafter}, “A New India?” (Chapter 1).

Unit 2. Growth and Structural Change – Phases of Growth, Economic Liberalisation and Structural Change, Assessment of Growth and Development

3. Dreze and Sen (2013). “Integrating Growth and Development” (Chapter 2)
4. Lamba, Rohit and Arvind Subramanian (2020), Dynamism with Incommensurate Development: The Distinctive Indian Model, Journal of Economic Perspectives, Volume 34, Number 1 [Sections from this article will be used for India-China comparison relevant for Unit 3.]
5. Omkarnath, G. (2013). “Liberalisation and Growth” (Ch.7, pg. 199-215) in Economics: A Primer for India, Orient Blackswan.

Unit 3. The Indian Economy in a Comparative Perspective

6. Dreze and Sen (2013). “India in Comparative Perspective” (Chapter 3).
7. Lamba & Subramanian (2020) from Unit 2 to be used for India-China comparison Unit 4. Key Issues: Poverty, Inequality, Education, Health and Gender
8. Dreze and Sen (2013). “The Centrality of Education” (Ch.5), “India’s Health Care Crisis” (Ch.6), “Poverty and Social Support” (Ch.7), “The Grip of Inequality” (Ch. 8). [For Education, Health, Poverty & Inequality respectively. Ch.8 to be used for Gender inequality also]

9. Gupta, Indrani (2012). "Health Indicators" in K. Basu and A. Maertens (eds), New Oxford Companion to Economics in India, OUP. {Referred to as NOCEI hereafter} [For Health]
10. Agarwal, Bina (2012). "Gender Inequality" in NOCEI [For Gender]
Unit 5. Sectoral Performances and Issues in Contemporary Indian Economy – Agriculture, Industry, Services and International Trade
11. Dev, Mahendra (2012). "Agricultural Development" in NOCEI 12. Ghatak, Maitreesh (2012). "Land Reforms" in NOCEI
13. Nagaraj, R. (2012) "Industrial Growth" in NOCEI
14. Nagaraj, R. (2017). "Economic Reforms and Manufacturing Sector Growth. Need for Reconfiguring the Industrialisation Model". Economic and Political Weekly, 52(2), pg.61-68.
15. Economic Survey 2016-17. "Clothes and Shoes: Can India Reclaim Low Skill Manufacturing?" (Chapter 7), Ministry of Finance, Government of India, 2017.
16. Chanda, Rupa (2012). "Services led Growth" in NOCEI
17. Pal, Partha Pratim (2014), "India and International Trade since the establishment of WTO" and "New Developments and Policy Challenges" (Chapters 5 & 6) in International Trade and India, Oxford India Short Introductions, Oxford University Press.
18. Economic Survey 2020-21 Volume 2. "Developments in India's Balance of Payments (BOP)" in (pg. 93-115), Ministry of Finance, Government of India, 2021. [This is meant to provide up-to-date information on the BOP situation and is to be read along with Pal, PP (2014) Ch. 5.]

Additionally teachers and interested students may also refer to the following two papers and use some of the data presented in the tables as complementary material to the readings on structural change, growth and BOP.

- 1*. Goldar, B et al. (2017). "Productivity Growth in India since the 1980s: The KLEMS approach", Indian Economic Review. [Particularly, sections 3 to 5]
- 2*. Mohanty, M (2015). "India: Globalisation and Growth", Working Paper Series (WPS 762), Indian Institute of Management Calcutta. [Particularly, sections II to V]

Value Addition Course

Financial Literacy

Unit I: Financial Planning and Financial products

Introduction to Saving , Time value of money , Management of spending and financial discipline

Unit II: Banking and Digital Payment

Banking products and services , Digitisation of financial transactions: Debit Cards (ATM Cards) and Credit Cards. Net banking and UPI, digital wallets , Security and precautions against Ponzi schemes and online frauds

Unit III: Investment Planning and Management

Investment opportunity and financial products , Insurance Planning: Life and non-life including medical insurance schemes

Unit IV: Personal Tax

Introduction to basic Tax Structure in India for personal taxation , Aspects of Personal tax planning , Exemptions and deductions for individuals , e-filing

References

1. Introduction to Financial Planning (4th Edition 2017) – Indian Institute of Banking & Finance.
2. Sinha, Madhu. Financial Planning: A Ready Reckoner July 2017, McGraw Hill. Additional Resources
3. Halan, Monika. Lets Talk Money: You've Worked Hard for It, Now Make It Work for You July 2018 Harper Business.

4. Pandit, Amar The Only Financial Planning Book that You Will Ever Need , Network 18 Publications Ltd.

GENERIC ELECTIVES (GE-4):

PRINCIPLES OF MACROECONOMICS I

UNIT – I: Introduction (05 Hours) What is macroeconomics? Macroeconomic issues in an economy

UNIT – II: National Income Accounting (10 Hours) Concepts of GDP and National Income; measurement of national income and related aggregates; nominal and real income; limitations of the GDP concept

UNIT – III: Determination of GDP (10 Hours) Actual and potential GDP; aggregate expenditure; consumption function; investment function; equilibrium GDP; concepts of MPS, APS, MPC, APC; autonomous expenditure; Concept of multiplier

UNIT – IV: National Income Determination in an Open Economy with Government (10 Hours) Income determination; Fiscal Policy: impact of changes in government expenditure and taxes; net exports function; net exports and equilibrium national income. UNIT – V:

Money in a Modern Economy (10 Hours) Concept of money in a modern economy; monetary aggregates; demand for money; quantity theory of money; liquidity preference and rate of interest; money supply and credit creation; monetary policy.

Essential/recommended readings

Andrew Abel, Ben Bernanke and Dean Croushore (2011). Macroeconomics (7th edition). Pearson

Richard T. Froyen (2013). Macroeconomics: Theories and Policies (10th ed.), Pearson. – Blanchard, O. (2018). Macroeconomics(7th edition). Pearson

Blanchard, O.(2006). Macroeconomics(6th edition). Pearson – Dornbusch, R., and S. Fischer. (1994). Macroeconomics (6th edition). McGraw- Hill

R. Dornbusch, S. Fischer and R. Startz. (2018). Macroeconomics (12th edition). McGraw-Hill