MAHARASHTRA EDUCATION SOCIETY

ABASAHEB GARWARE COLLEGE

(AUTONOMOUS)

(AFFILIATED TO SAVITRIBAI PHULE PUNE UNIVERSITY)

T.Y.B.A. Program in Economics

(Faculty of Humanities)

SYLLABI UNDER NEP 2.0 (2024 Pattern)

T.Y.B.A.

Economics

Choice-Based Credit System Syllabus

To be implemented from Academic Year 2026-2027

Semester V

Verticals	Course Code	Course Title	Credits	Type
Major I	ECO-301-MJ	International Economics	4	Theory
Major II	ECO-312-MJ	Public Finance	4	Theory
Major III	ECO-313-MJ	Environmental Economics	4	Theory
Elective	ECO-318-MJE Or ECO-317-MJE	Statistical techniques Or Urban Economics	4	Theory
Minor	ECO-342-MN	Indian Economy	2	Theory
VSC	ECO-322-VSC	Excel Application for Economic Analysis	2	Practical
VSC	ECO-323-VSC	Demography and Population Estimation	2	Theory
FP	ECO-331-FP	Field Project	2	Practical

Semester VI

Verticals	Course Code	Course Title	Credits	Type
Major I	ECO-361-MJ	Growth & Development	**4**	Theory
Major II	ECO-362-MJ	Money and Banking	4	Theory
Major III	ECO-363-MJ	Gender Economics	**4**	Theory
Elective	ECO-368-MJE Or ECO-369-MJE	Elementary Econometrics Or Rural Development	**4**	Theory
VSC	ECO-371-VSC	Introduction to R for Economic Analysis	**2**	Practical
VSC	ECO-372-VSC	Behavioural Economics	**2**	Theory
OJT	ECO-381-OJT	On Job Training	**4**	Practical

International Economics
Semester: V

Course Code: ECO-301-MJ **Credit: 4**

Course Objectives:

• Provide a foundational understanding of international trade theories and policies.
• Analyse the impact of globalization on economies and trade patterns.
• Explain balance of payments, exchange rate systems, and international monetary institutions.
• Assess the role of trade policies, tariffs, and international agreements in global trade.
• Examine the effects of international economic relations on domestic economies.

Course Outcomes:

• Demonstrate knowledge of classical and modern trade theories.
• Analyse the causes and effects of trade policies such as tariffs, quotas, and subsidies.
• Understand the working of exchange rate mechanisms and balance of payments.
• Evaluate the role of institutions like the WTO, IMF, and World Bank in international trade.

Unit 1: Introduction to International Economics (10 Hours)

1.1 International Economics: Meaning, Nature, Scope and importance

1.2 Difference Between inter-regional and International Trade

1.3 Gains from Trade

Unit 2: Theories of International Trade (14 Hours)

2.1 Classical Theories: Absolute and Comparative Advantage (Adam Smith & David Ricardo)

2.2 Modern Theories: Heckscher-Ohlin Model, Leontief Paradox, Reciprocal Demand Curve

2.3 New Trade Theories (Krugman's Model, Increasing Returns to Scale, Intra-Industry Trade)

Unit 3: Trade Policy and Protectionism (18 Hours)

3.1 Free Trade vs. Protectionism

3.2 Instruments of Trade Policy: Tariffs, Quotas, Subsidies

3.3 Economic Integration: Customs Unions, Common Markets, and Free Trade Agreements

3.4 WTO and Global Trade Policies

3.5 Role of IMF, World Bank, and Regional Development Banks

Unit 4: Balance of Payments and Exchange Rates (18 Hours)

4.1 Structure and Components of the Balance of Payments (BOP) and Balance of Trade

4.2 Disequilibrium of Balance of Payments: Causes and Consequences and measures to correct disequilibrium in BOP

4.3 Exchange Rate Systems: Fixed vs. Floating Exchange Rates: merits and demerits

4.4 Purchasing Power Parity (PPP) and Interest Rate Parity

Basic Reading List:

- Kenan, P.B. (1994), the International Economy, Cambridge University Press, London.
- Kindlberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.

- Krugman, P.R. and M. Obstgeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
- Salvatore, D.L.(1997), International Economics, Prentice-Hall, Upper Saddle River, N.J.
- Sodersten, Bo (1991), International Economics, Macmillan Press Ltd., London.
- International Economics , M.L. Jhingan
- Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass.
- Greenaway, D. (1983), International Trade Policy, Macmillan Publishers Ltd., London
- Joshi V. and I.M.D. Little (1998), India's Economic Reforms, 1999-2001, Oxford University Press, Delhi.
- Panchmukhi, V.R. (1978), Trade Policies of India: A Quantitative Analysis, Concept Publishing Company, New Delhi.
- Patel, S.J. (1995), Indian Economy towards the 21st Century, University Press Ltd., India.
- Rasal, Rajendra, International Economics (Marathi), Success Publication Pune.
- प्रा. डॉ. अनिलकुमार वावरे, प्रा. निलेशकुमार गुरव आनि डॉ. गजानन खामकर,(२०२२), आंतरराष्ट्रीय अर्थशास्त्र, एडूकेशन पब्लीशर्स अँड डिसट्रिब्युटर
- डॉ. एस. व्ही. ढमढेरे आनि डॉ. संजय तुपे, आंतरराष्ट्रीय अर्थशास्त्र, डायमंड पब्लिकेशन

Reports:

- Ministry of Commerce and Industry, Government of India, Recent Annual Report
- Government of India, Economic Survey Latest
- Reserve Bank of India, Annual Report

Public Finance

Semester: V

Course Code: ECO-312-MJ **Credit: 4**

Preamble

This course bridges global economic theories with India's practical fiscal reality. It explores how the government manages money through taxing and spending to balance economic efficiency with social justice, rooted in both modern science and Indian values.

Objectives

- Understand why and how governments intervene in markets and Learn to evaluate taxes and government spending.
- Decode India's budget, Taxes-GST 2.0, and Finance Commission.
- Apply indigenous thoughts like Integral Humanism to public policy.
- Interpret real-world fiscal data and current economic reforms.

Learning Outcomes

- Ability to apply the fundamental concepts of public finance and the Principle of Maximum Social Advantage, to evaluate government intervention in the economy.
- Ability to analyze and demonstrate knowledge of taxation structures and the operational framework of the Goods and Services Tax (GST) in India.
- Evaluate the impact of public expenditure and public debt on economic growth.
- Demonstrate an understanding of the Indian Budgetary process, including the role of the Finance Commission in the equitable distribution of resources between the Centre and States.
- Overall student should be able to critically assess current fiscal policies, analyze the Union Budget, and understand how fiscal tools are used to achieve socio-economic objectives like poverty reduction and price stability.

Unit 1: Foundations of Public Economics (15 Lectures)

1.1 Public economics: meaning, nature, scope and importance.
1.2 The Role of Government: Market failure vs Government Failure, Pareto efficiency.
1.3 Public Goods & Externalities: Theory of pure and impure public goods, The Free-rider problem, Coase Theorem.
1.4 Collective Decision Making: Public Choice Theory-Arrows Impossibility Theorem, Median Voter Model.

Unit 2: Economics of Taxation (15 Lectures)

2.1 Principles of Taxation: Canons of Taxation, Benefit vs. Ability-to-Pay principles, Equity-Horizontal and Vertical.
2.2 Impact and Incidence: Tax shifting and incidence, Deadweight loss of taxation.
2.3 Optimal Taxation: Basics of Ramsey Rule and Optimal Income Tax.

2.4 Modern Tax Structure: Introduction to Taxation, Direct vs. Indirect taxes, Goods and Service Tax

Unit 3: Public Expenditure and Debt Management (15 Lectures)

3.1 Meaning, objectives and classification of public expenditure
3.2 Theories of Public Expenditure: Wagner's Law of Increasing State Activities, Wiseman-Peacock Hypothesis, Critical Limit Hypothesis, Trends in Public Expenditure in India.
3.3 Evaluation Techniques: Introduction to Cost-Benefit Analysis and Social Discount Rate.
3.4 Public Debt: Meaning and types of public debt, Sources of public borrowing, Burden of public debt, Debt sustainability and the Fiscal Responsibility and Budget Management Act.

Unit 4: Fiscal Federalism and Policy in India (15 Lectures)

4.1 Fiscal Federalism: Meaning and importance of fiscal federalism, Constitutional provisions, Vertical and Horizontal imbalances, 16th Finance Commission.
4.2 Budgetary Process: Classification of budgets, Deficit indicators- Fiscal, Revenue, and Primary Deficits.
4.3 Contemporary Issues: Digital Transformation in Public Finance, Fiscal Stimulus vs. Consolidation, Subsidies vs. Direct Benefit Transfer.
4.4 Strategic Policy Frameworks for Inclusive Growth: Antyodaya and Budgetary Prioritization, Fiscal incentives for local production and self-reliance.

Reading List

1. Richard A. Musgrave and Peggy B. Musgrave, *Public Finance in Theory and Practice*, McGraw Hill Education.
2. Joseph E. Stiglitz and Rosengard, J.K., *Economics of the Public Sector*, W. W. Norton & Company.
3. Jonathan Gruber, *Public Finance and Public Policy*, Worth Publishers, 2022.
4. Harvey S. Rosen and Gayer, T., *Public Finance*, McGraw Hill.
5. Anthony B. Atkinson and Stiglitz, J.E., *Lectures on Public Economics*, Princeton University Press.
6. Jean Hindriks and Myles, G.D., *Intermediate Public Economics*, MIT Press.
7. Y. V. Reddy and Reddy, G.R., *Indian Fiscal Federalism*, Oxford University Press.
8. M. Govinda Rao, *Studies in Indian Public Finance*, Oxford University Press.
9. M. M. Sury, *Public Finance in India*, New Century Publications.
10. S. K. Singh, *Public Finance: Theory and Practice*, S. Chand & Company.
11. H. L. Bhatia, *Public Finance*, Vikas Publishing House.
12. Dattopant Thengadi, *The Third Way*, Sahitya Sangam, 1995.
13. Deendayal Upadhyaya, *Integral Humanism*, Prabhat Prakashan, 1965.
14. Ministry of Finance, *Economic Survey of India* (Latest Issues).
15. Finance Commission of India, Reports of the 15th and 16th Finance Commission

Journals & Online Resources

1. Economic and Political Weekly (EPW)
2. Journal of Public Economics (selected open-access articles)

3. National Institute of Public Finance and Policy (NIPFP Working Papers)
4. Centre for Budget and Governance Accountability (CBGA Reports)
5. PRS Legislative Research
6. Reserve Bank of India (Annual Reports, Handbook of Statistics)
7. Open Government Data Platform India (data.gov.in)
8. World Bank (Open Knowledge Repository)
9. International Monetary Fund (Working Papers & Fiscal Monitor)

Environmental Economics
Semester: V

Course Code: ECO-313-MJ **Course Credits: 04**

Course Objectives:

- To introduce the fundamental concepts, meaning and scope of environmental economics as a distinct field of study.
- To understand the relationship between environmental components and economic activities.
- To distinguish between environmental economics and natural resource economics
- To examine the measurement of environmental sustainable development and its indicators.
- To analyse the environmental problems arising from deforestation and agricultural development.
- To understand the theory and methods of environmental valuation including revealed preference and stated preference approaches.
- To study the concept, stages and benefits of Environmental Management System (EMS) for industries and organizations.
- To identify different types of pollution (air, water, noise, land) and their causes, effects and management strategies.
- To examine transboundary pollution, global warming and international environmental protocols
- To analyse the relationship between trade and environment including Porter's hypothesis and pollution havens hypothesis.

Course Outcomes:

- Define environmental economics and explain its components and distinction from natural resource economics.
- Measure environmental sustainable development using appropriate indicators and methods.
- Analyse the environmental problems caused by deforestation and agricultural development.
- Apply environmental valuation methods including Compensating Variations, Equivalent Variations, Willingness to Pay and Willingness to Accept.
- Demonstrate the use of Revealed Preference Methods (Hedonic Pricing, Defensive Cost, Health Cost, Travel Cost) and Stated Preference Methods (Contingent Valuation).
- Explain the meaning, stages and benefits of Environmental Management System (EMS) for industries and organizations.
- Identify different types of pollution and suggest appropriate management strategies for each.
- Analyse trans boundary pollution, global warming and evaluate international protocols relating to climate change and ozone depletion.
- Examine the impact of trade on environment and environment on trade including Porter's hypothesis, race to bottom and pollution havens hypothesis.
- Critically evaluate case studies on environmental issues and trade-environment linkages.Develop critical thinking skills to propose sustainable economic solutions for environmental challenges.

Unit 1: Environmental Economics and Sustainable Development (15Hours)

1.1 Meaning and Definition of Environmental Economics.
1.2 Components of Environment and there Conservation Policy .
1.3 Distinction between Environmental Economics and Natural Resources.
1.4 Measurement of Environmental Sustainable Development.
1.5 Agricultural Development and Environmental problems.
1.6 Carbon Footprint: Meaning, types – direct & indirect, control measures .

Unit 2: Valuation of Environmental Goods and Services (15 Hours)

2.1 Theory of environmental valuation and conceptual basis of its methods: Compensating Variations and Surplus, Equivalent Variations and Surplus, Willingness to pay or accept

2.2 Revealed Preference Methods: (a) Hedonic Pricing, (b) Household Production Function approach - defensive cost, health cost and travel cost methods

2.3 The direct method of environmental valuation: Stated preference: Contingent valuation method.

Unit 3: Environmental Pollution and Waste Management (15 Hours)

3.1 Meaning and scope of Environmental management System (EMS)

3.2 Stages of setting ad implantation EMS and Benefit of EMS to Industries and organization .

3.3 Different Types of Pollution: Causes, Effects and Management – Air Pollution, Water Pollution, Noise Pollution and Land Pollution

3.4 Models of Environmental Issues Management -Source Emission Model,Dispersion Model ,Receptor Model

Unit 4: International Environmental Issue and Trade (15Hours)

4.1 Transboundary Pollution & Global Warming: Transboundary externalities, Global warming economics, Ozone depletion – causes & effects

4.2 International Environmental Governance and Climate Protocols : Rio 1992, UNFCCC & IPCC, Montreal Protocol, Kyoto Protocol, Paris Agreement, Basel & Stockholm Conventions

4.3 Impact of trade on environment and environment on trade Porter's hypothesis; race to bottom and pollution havens hypothesis;

References

- Agarwal, S. K. Environmental Economics. APH Publishing Corporation.
- Bateman, Ian J. et al. Economic Valuation with Stated Preference Techniques: A Manual. Edward Elgar, 2002.
- Chopra, K. and V. Dayal (ed.). Handbook of Environmental Economics in India. Oxford University Press, Delhi, 2009.
- Field, Barry C. and Martha K. Field. Environmental Economics: An Introduction. McGraw-Hill.
- Freeman, A.M. The Measurement of Environmental and Resource Values. Resources for the Future, 2nd Edition, 2003.
- Singh, Katar and Anil Shishodia. Environmental Economics: Theory, Application and Policy. Sage Publications, New Delhi, 2007.
- Wright, R.T. Environmental Science: Towards Sustainable Future. Pearson, Tenth Edition, 2007.

Additional Suggested Readings

- Chopra, K. and V. Dayal (ed.) Handbook of Environmental Economics in India. Oxford University Press, Delhi, 2009.
- Haque, A.K.E., M.N. Murty, and P. Shyamsundar (ed.) Environmental Valuation in South Asia. Cambridge University Press, Delhi, 2011.
- Kadekodi, G.K. (ed.) Environmental Economics in Practice - Case Studies from India Oxford University Press, Delhi, 2004.
- Sankar, U. Environmental Economics Oxford University Press, Delhi, 2001.

Statistical Technique
SEM -V

Course Code: ECO-318-MJE **Course Credits: 04**

Course Objectives:

- To provide an understanding of statistics and its application in various economic topics.
- To demonstrate the practical and applied aspects of economics with the help of Statistical

Learning Outcomes:

- Ability to develop, demonstrate, and examine various topics under economics with the help of statistical techniques.
- Ability to examine subject areas in economics using statistical tools.
- The course will help understand preliminary quantitative methods
- The course will be helpful for the application of different statistical techniques
- The course will help to interpret the data

Unit 1. Introduction **(10 Lectures)**

1.1 Origin and Development of Statistics
1.2 Definition of Statistics
1.3 Importance and Scope of Statistics
1.4 Limitations of Statistical Methods

Unit 2. Classification of Data **(12 Lectures)**

2.1 Sources of Data- Primary and secondary
2.2 Methods of data collection
2.4 Classification of data
2.5 Tabulation
2.6 Frequency Distribution: array, discrete or ungrouped frequency distribution, grouped frequency distribution, Continuous Frequency Distribution
2.7 Graphical Representation of a Frequency Distribution
2.8 Histogram
2.9 Frequency Polygon and Frequency Curve

Unit 3. Central Tendency **(16 Lectures)**

3.1 Measures of Central Tendency: Meaning, and Definition of Arithmetic Mean, Median, and Mode
3.2 Arithmetic Mean, Median and Mode - Merits and demerits
3.3 Empirical relation between arithmetic mean, median, and mode

Unit 4. Measures of Dispersion **(22 Lectures)**

4.1 Meaning of Dispersion
Properties of a good measure of dispersion
4.2 Range, Quartile Deviation or Semi inter-quartile range, Percentile range,
4.3 Mean deviation – calculation, merits and demerits
4.4 Standard Deviation - calculation, merits and demerits
4.5 Variance and Lorenz Curve

References / Basic Reading List:

1. Anderson David & al (2015) Statistics for Business and Economics, 12th Edition, Cengage
India.
2. Gupta S.C. (Latest Edition) 'Fundamentals of Applied Statistics' Sultan Chand & Sons.
3. Gupta S.C. (2014) 'Fundamentals of Mathematical Statistics' Sultan Chand & Sons.

4. Gupta S.P. (2014) Statistical Method, Sultan Chand & Sons, 46th Ediation.
4. Nagar A.L. & Das R.K. (1997) ‘Basic Statistics’ 2nd Edition, OUP.
5. Rohatgi Vijay K., A.K. Md. Ehsanes Saleh (2008) ‘An Introduction to Probability and
Statistics, Wiley, 2nd Edition.
6. Vohra N.D. (2017) “Business Statistics’ McGraw Hill Education

Recommended Reading:

1. Croxton F. E and Cowden D. J. (1968) ‘Applied General Statistics’ Pitman Publishing
2. Croxton F. E and Cowden D. J. (2012) ‘Practical Business Statistics’ Literary Licensing,
LLC
3. Keller Gerald (2015) Statistics for Management and Economics, South Western Lind,
Marchal and Wathen (2017) ‘Basic Statistics for Business and Economics’ McGraw Hill
Education, 7th Edition
4. Richard I. L, M. H. Siddiqui, D S. Rubin, Sanjay Rastogi (2017) Statistics for Management and Economics’ 5th Edition, Pearson Education

Recommended Journals:

1. Journal of International Economics- Elsevier
2. Journal of Finance- Wiley Online
3. Journal of Applied Statistics- Francis & Taylor
4. Journal of Statistics Education- Francis & Taylor

Urban Economics
SEM V

Course Code: ECO-317-MJE **Course Credits: 04**

Course Objectives:

- To study the concepts, process and indicators of urbanization.
- To review the trends of urbanization at global level and in India.
- To Evaluate the urban poverty alleviation policies
- To study the urban problems and policies with special reference to India.
- To examine the components of urban growth.
- To analyze the interrelationship between migration and urban growth.
- To evaluate the various theories of migration.

Course outcome:

- To understand the urban problem and policies.
- To familiarize students with poverty alleviation policy that are relevant to Indian urban economics and enable them to analyze the issues.
- To provide the knowledge of interrelationship between migration and urban growth.

Unit 1. Introduction **(15 Hours)**

1.1 Urban Economics: Definition and Scope and Importance.
1.2 Process and Indicators of Urbanization.
1.3 Causes of urbanization
1.4 Models of Urban Development and Planning: Central base theory and Economy base theory.
1.5 Interrelationship between industrialization and urbanization
1.6 The Urban Economy and Development Strategy

Unit 2. Urban Local Government **(15 Hours)**

2.1 Types of local bodies and Governance- Cantonment Boards- Special Areas Improvement
2.2 Trust: Functions, Problems and limitations- Slums Areas: Locations and Problems – slum development policy
2.3 Urban Poverty – Nature, Causes and Policies

Unit 3. Migration and Urban Growth **(15 Hours)**

3.1 Components of urban growth: Natural growth, migration, Addition of net new towns.
3.2Migration and urbanization: causes and consequences of migration and changing dynamics of migration.
3.3Theories of migration: Lewis, Fei and Ranis, Harris-Todaro.
3.4 Contribution of migration in urban growth in India.

Unit 4. Urbanization in India **(15 Hours)**

4.1 Growth of Urban Population, Urban Development Policy in India.
4.2 Policies and Programs under the Plans-Jawaharlal Nehru National Urban Renewal Mission (JNNURM).
4.3 Urban infrastructure: Problem of urban housing and transportation. Smart city mission in India

Basic Reading List:

- Arthur O'Sullivan (2018), 'Urban Economics', Ninth edition, McGraw Hill Education
- Peter Hall, Mark Tewdwr-Jones (2019), 'Urban and Regional Planning' Routledge; Sixth edition

- Mary E. Edwards (2007), 'Regional and Urban Economics and Economic Development Theory and Methods', Routledge
- Ahluwalia, Kanbur and Mohanty (2014), 'Urbanization in India: Challenges, Opportunities and the Way Forward' SAGE Publications
- Bhagat R.B. (2018), 'Urbanization in India: Trend, Pattern and Policy Issues', IIPS working paper series, International Institute for Population Sciences, Mumbai, India
- Reforms in Urban Planning Capacity in India- September 2021, NITI Ayog, Government of India, New Delhi
- India Urban Infrastructure Report 2020, Knight Frank

Excel Application for Economic Analysis

SEM V

Course Code: ECO-322-VSC **Total Credits: 02**

In this practical work, hands-on training in applying statistical tools for analysis and display of data will be given to students. Students are expected to give their practical performance during internal and final examinations.

Learning objective:

The main objective of this practical course is to provide analysis skills to students using modern techniques for large data sets.

Learning Outcomes:

The hands-on training received in the practical will be helpful to students for their research
purposes. At the end of the course students will be able to analyze large data sets using mathematical and statistical tools.

Unit -1 (Model-I) **(30 Hours)**

An Overview of the Screen: Navigation and Basic Spreadsheet Concepts, Various Selection Techniques, Data Entry: Creating, Editing, Saving, Page Settings, Basic Calculation and Basic Formulas, Customising Common options in Excel, Absolute and Relative Cells, Protecting and Un-Protecting worksheets and cells, Shortcut Keys.

Unit-2 (Model-II) **(30 Hours)**

Working with Data Lists: Sorting – Custom Sort, Multilevel, Subtotals – Formula, Function, Filtering – Advanced Filter, Displaying Data in Charts: Column charts, Line Charts, Pie Charts, Bar Charts, Area Charts, Scatter Charts, Stock Charts, Surface Charts, Doughnut Charts, Bubble Charts, Radar Charts.

Assessment Methods

Internal Assessment Methods (Continuous Evaluation) **(25 Marks)**

- Practical Assignments
- Lab Performance / Hands-on Work
- Mini Project / Case Study
- Viva Voce
- Internal Practical Test

External Assessment Methods (Final Examination) **(25 Marks)**

- **Practical Examination:** Students perform tasks in the lab within a fixed time.

List of Practicals:

- Study the interface of Microsoft Excel by identifying components such as the ribbon, tabs, groups, formula bar, and worksheet area, and practice navigating between worksheets and workbooks.
- Create a new workbook, insert, rename, and delete worksheets, and save the file in different formats such as .xlsx and .csv.
- Practice various selection techniques by selecting cells, rows, and columns, including multiple and non-adjacent ranges, using keyboard shortcuts like Ctrl and Shift.
- Perform data entry by entering text, numbers, and dates, and practice editing, deleting, formatting data, and using AutoFill and Flash Fill features.
- Perform basic calculations by creating simple formulas for addition, subtraction, multiplication, and division.

- Use basic functions such as SUM, AVERAGE, MIN, MAX, and COUNT, and apply the AutoSum feature for quick calculations.
- Perform sorting of data in ascending and descending order, including custom sorting and multilevel sorting based on multiple columns.
- Use filtering techniques by applying basic filters and advanced filters with specific conditions.
- Create a pie chart to represent data in percentage distribution form.
- Create charts using data.

Reference Books:

1. Michael Alexander and Dick Kulseika, “Microsoft Excel 365 Bible – The Comprehensive Tutorial Resource”, Wiley, February 2022
2. Greg Harvey, "Excel 2019 All-in-One Desk Reference for Dummies", October 2018
3. Joseph Schmuller,“Statistical Analysis with Excel for Dummies”,Wiley, December 2021
4. Alan Murray, “Advanced Excel Formulas”, Apress, August 2022
5. Paul McFedries, “Excel Data Analysis for Dummies”, Wiley, January 2022.
6.Greg Harvey, "Excel 2019 for Dummies", Wiley, October 2018

Demography and Population Estimation
SEM-V

Course Code: ECO-323-VSC **Total Credits: 02**

Course Learning Outcomes:

- Gain a sound command over the basic tenets of demography as well as key demographic
- issues and illustrations in the context of a large and diverse country like India.
- Grasp a clear understanding of the inter-relationship between demography and the process of economic development
- To explore various aspects of the population policy and to study its impact on socioeconomic issues
- This course helps to understand all the demographic and mathematical procedures that are used in estimation and projection of population.

Unit-1 Demography- Concept and Scope **(15 Lectures)**

1.1 Theories of Population – Malthusian & Optimum Theory of Population & Theory of Demographic Transition
1.2 Relationship between Population and Economic Development - views of Julian Simon,
Simon Kuznets&Tragedy of commons
1.3 Sources of Population data - Population Censuses, Vital Registration, Sample Registration System and Large-scale Demographic Surveys.
1.4 Fertility – Basic concepts, indicators of fertility
1.5 Mortality – Basic concepts, indicators of mortality
1.6 Trends and Fertility Differentials in India (rural-urban, education, religion)
1.7Life Table: Basic concepts, types, and forms of life tables
1.8 Migration- Concept and types of migration

Unit-2: Population Estimation and Projections **(15 Lectures)**

2.1 Methods of Population Estimation and Projection
2.2 Mathematical and Cohort Component Methods
2.3 Assumptions, on fertility, Mortality, and Migration
2.4 Sub-National Population Projections-Various Methods, URDG, Projection of Labour Force, Educational Population

Recommended Reading:

•Barclay G W Techniques of Popualation Analysis, New York, John Wiley and Sons, Inc
• Hinde, Andrew Demographic Methds.London,1998
• Jaffe A J Hand Book of Statistical Methods for Demographers, Washington, US Govt.
Printing Office
• MISRA B D An Introduction to the Study of Population, Madras, Publishing
• Pathak, K.B.& F.RAM Techniques of Demographic Analysis, Mumbay, Himalaya Publishinghouse.
• Pollard J H Demographic Techniques Australia, Pengamon Press
• Preston, Samuel H, Patrick Heuveline and Michel Guillot: Demography – Measuring and
Modeling Population Processes
• Ramakumar R Technical Demography, New Delhi, Wiley Eastern Ltd.

• Shryock, Henry S, Jacob S Seigel and Associates, The Methods and Materials of Demography Vol. 1 & 2, Washington DC US Bureau of the Census
• SPIEGELMAN M Introduction to Demography Cambridge, Harvard University Press
• Srinivasan K Basic Demographic Techniques and Applications, New Delhi, Sage Publications
•Bhende A.A. and Tara Kanitkar (2019)- 'Principles of Population Studies'- Himalaya Publishing House, Bombay
•J.N. Desai M.L. Jhingan, B.K. Bhatt (2016), 'Demography', Vrinda Publications (P) Ltd.
• Isher Judge Ahluwalia,Ravi Kanbur,P.K .Mohanty ,(2014)'Urbanisation in India: Challenges, Opportunities and the Way Forward'.
• Government of India – (Various Reports), Census of India, New Delhi.
• http://censusindia.gov.in/
• http://mospi.nic.in/
• https://www.nhp.gov.in

Indian Economy
SEM V

Course Code: ECO-342-MN **Course Credits: 02**

Objectives of the course:

- Understanding the basic concepts of Indian Economy after economic reforms and helps of students learn how the Indian Economy is organized.
- Understand the Indian financial structure and based on selected parameters
- Understanding the help of major issues in economy.

Course Outcomes:

- This course will help students understand the key issues related to the Indian economy. It will broaden their horizons and enable them to analyse current economic policy thus improving their chances of getting employed, and be more effective, in positions of responsibility and decision making
- This course on Indian Economy examines issues relating to the evolution and performance on all aspects of the Indian economy. It is based on the concepts of development economics. The course is fairly exhaustive and is useful for increasing the general awareness of students on issues affecting the Indian Economy.
- This course provides a strong theoretical foundation and economics knowledge to understand the working of modern finance. At the end of the syllabus students are expected to learn about different investment theories, Portfolio theories and analysis, Futures trading, option and derivative market. They will also learn about corporate finance: pattern of corporate finance, corporate debt and dividend policy and about capital structure and the cost of capital. They will be able to understand the nitty gritty of real-world finance, finance world news articles

1. Indian Economic Planning **15 Hours**

1.1 Economic planning - Meaning and definition Characteristics

1.2 Types of planning Structure of planning

1.3 Review of the five-year plans.

1.4 NITI Aayog: organization, structure functions and role

1.5 Indicators of development and comparison with developed and developing countries. (Human Development Index (HDI), Gross Domestic Product (GDP) per capita income, poverty rates, literacy rates, life expectancy, gender inequality, and employment).

2. Indian Financial System **15 Hours**

2.1 Meaning and definition of financial system

2.2 Components of Indian financial system

2.3 Evolution and progress of Indian banking

2.4 Reserve Bank of India: Meaning and Functions

2.5 Money Measures: M1, M2, M3, M4

Reference Books

1. Ramesh Singh: Indian Economy, Tata MaGraw hill Publication New Delhi
2. A N Agrawal- (2015), Indian Economy-Problems of Development and Planning, Wishwa Prakashan, New Delhi
3. Indian banking system - Dr. Rita Swami
4. Desai Vasant (2007), 'Indian Banking-Nature and Problems', Himalaya Publishing House.
5. M. L. Jhingan, Money, Banking, International Trade and Public Finance, Vrinda Publication, New Delhi
6. Indian Economic Survey, Ministry of Finance, Government of India
7. Misra, S. K. and Puri, Growth and Development, Mumbai: Himalaya Publishers, 2005.
8. Jhingan M.L. (1982) The Economics of Development and Planning. Vrindo Publication (P) Ltd.
9. Trivedi I.V. and Jatana Renu (2010), 'Indian Banking System', RBSA Publisher.
10. Dwivedi. D.N. (2013), International Economics: Theory and Policy, Vikas Publishing House, New Delhi.
11. Mithani D.M (2002), Introduction to International Economics, Vora&Co Publishers, Bombay.

Open Access Journals & Online Resources:

1. Economic and Political Weekly. (n.d.). EPW Journal. Mumbai: Sameeksha Trust. Available at: https://www.epw.in
2. NITI Aayog. (n.d.). *Strategy Papers, SDG India Index & Policy Reports*. New Delhi: Government of India. Available at: https://www.niti.gov.in
3. Government of India. (n.d.). *Open Government Data Platform India*. Available at: https://data.gov.in
4. World Bank. (n.d.). *World Development Indicators & Open Data*. Washington, D.C. Available at: https://data.worldbank.org
5. Reserve Bank of India (Annual Reports, Handbook of Statistics)

Field Project
SEM V

Course Code: ECO-331-FP **Course Credits: 02**

Course Objectives

- To develop students' ability to conduct field-based economic research through data collection, analysis, and interpretation.
- To provide practical exposure to socio-economic issues and enhance research, communication, and report-writing skills.

Course Outcomes

After successful completion of the course, students will be able to:

- Design and execute a field-based research project using appropriate research methods and data collection techniques.
- Analyze and interpret field data and present research findings effectively through written reports and oral presentations.

Unit I: Research Design and Field Investigation (15 Hours)

1.1 Introduction to Field Research- Meaning, Importance, and Scope of Field Projects
Role of Field Research in Economics

1.2 Selection of Research Topic- Identification of Economic and Social Issues Formulation of Research Problem and Objectives

1.3 Research Methodology -Types of Data: Primary and Secondary, Sampling Methods, Preparation of Questionnaire/Schedule, Ethical Issues in Field Research

1.4 Data Collection Techniques, Survey Method, Interview Method, Observation Method
Focus Group Discussion

1.5 Field Visit and Data Collection -Conducting Field Surveys, Recording and Documentation of Information

Unit II: Data Analysis, Report Writing and Presentation (15 Hours)

2.1 Data Processing and Analysis- Classification, Coding, and Tabulation of Data
Use of Tables, Charts, and Graphs, Interpretation of Findings

2.2 Project Report Writing- Structure of Field Project Report, Introduction, Objectives, Methodology, Findings, Conclusion, and Suggestions, Referencing and Bibliography

2.3 Presentation and Viva-Voce- Preparation of Presentation, Communication of Research Findings, Final Project Submission and Viva-Voce

Evaluation Pattern

Internal Assessment (25 Marks): Continuous evaluation based on research planning, field work, data analysis, and presentation.

External Assessment (25 Marks): Evaluation of the final project report and viva-voce conducted by the external examiner.

Assessment Method 50 Marks		
Internal Assessment (25 Marks)		
Sr. No.	**Component**	**Marks**
1	Research Proposal and Topic Selection	05
2	Questionnaire/Schedule Preparation and Field Work Progress	05
3	Data Analysis and Interpretation	05
4	Project Presentation	10
External Assessment (25 Marks)		
1	Final Field Project Report	15
2	Viva-Voce Examination	10

Growth and Development
SEM -VI

Course Code: ECO-361-MJ **Total Credits: 04**

Course Preamble:

This course bridges traditional Western growth models with indigenous Indian thought, such as Integral Humanism. Aligned with NEP 2020, it prepares students to be "Global Citizens" rooted in Swadeshi values. By exploring Generative AI, Net Zero targets, and the Digital Economy, students gain the tools to drive India's transition toward a sustainable, self-reliant (Atmanirbhar), and inclusive future.

Course Objectives:

- **Conceptual Clarity:** Distinguish between quantitative growth and holistic, sustainable development.
- **Theoretical Synthesis:** Blend foundational growth theories with Indian perspectives on dignity and entrepreneurship.
- **Contextual Analysis:** Evaluate Indian socio-economic challenges, including poverty, inequality, and the demographic dividend.
- **Future Readiness:** Navigate emerging shifts like Jobless Growth, climate economics, and AI's impact on labor.

Course Outcomes:

- **Analyze:** Apply sustainability frameworks and "Green Growth" indicators to real-world data.
- **Compare:** Contrast classical development models with the Antyodaya and Third Way approaches.
- **Quantify:** Calculate and interpret key indices like HDI, MPI, and the Gini **Coefficient**.
- **Evaluate:** Assess Indian sectoral policies, from Agri-tech to Make in India 2.0.
- **Envision:** Formulate strategic pathways for the Viksit Bharat 2047 vision.

Unit 1: Concepts of Growth and Development (15 Lectures)

1.1 Meaning and distinction: Economic Growth vs Economic Development, Concept of Green Growth.
1.2 Indicators of Development: Real Per Capita Income, Physical Quality of Life Index. Modern Measures HDI, IHDI, GDI, Happiness Index.
1.3 Sustainable Development: Concept and importance, SDGs and NITI Aayog's SDG India Index, Carbon Credit System and Carbon Markets.

Unit 2: Theories of Development (15 Lectures)

2.1 Classical Roots : Adam Smith-Division of Labour, Karl Marx -Capital Accumulation and Dependency Theory, Joseph Schumpeter theory.
2.2 Growth Strategies: Balanced Growth (Nurkse) vs Unbalanced Growth (Hirschman), Big Push Theory.

2.3 Basic Models: Harrod-Domar model and Solow's view on Technology.
2.4 The Indian Perspective: Introduction to Integral Humanism, Dattopant Thengadi- Third Way Model, Modernization without Westernization.

Unit 3: Poverty, Inequality and Human Capital (15 Lectures)

3.1 Poverty: Absolute vs Relative, MPI, Antyodaya Approach .
3.2 Inequality: Lorenz Curve, Gini Coefficient, Palma Ratio.
3.3 Human Capital: Role of Education and Health in Economic Productivity, Amartya Sen's Capability Approach, the importance of vocational skills.
3.4 Demographic Transition: Stages of population growth, India's demographic dividend 2.0 and Skill Gap.

Unit 4: Sectoral Issues and Development Policy in India (15 Lectures)

4.1 Agriculture & Rural Development: Productivity challenge and Nutritional Security, Agri -Tech and Food Processing, Organic farming And Swadeshi in agriculture.
4.2 Industrialization: Import Substitution to Export Promotion, Make in India 2.0.
4.3 Jobless Growth Crisis : Concept, Meaning and Causes, Impact of Generative AI on service sector jobs.
4.4 Viksit Bharat 2047: The roadmap for India to become a developed nation.

Book List:

1. Debraj Ray, D. (1998). *Development Economics*. Princeton: Princeton University Press.
2. Todaro, M. P., & Smith, S. C. (2020). *Economic Development* (13th ed.). New Delhi: Pearson Education.
3. Thirlwall, A. P. (2011). *Economics of Development: Theory and Evidence* (9th ed.). London: Palgrave Macmillan.
4. Banerjee, A. V., & Duflo, E. (2011). *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. New York: PublicAffairs.
5. Sen, A. (1999). *Development as Freedom*. New Delhi: Oxford University Press.
6. Kapila, U. (2023). *Indian Economy: Performance and Policies* (Latest ed.). New Delhi: Academic Foundation.
7. Government of India- *Economic Survey,* New Delhi: Oxford University Press (for Government of India).
8. Upadhyaya, D. (2016). *Integral Humanism* (Reprint; original lectures 1965). New Delhi: Suruchi Prakashan.
9. Dattopant Thengadi, (2008). *The Third Way*. New Delhi: Bharatiya Mazdoor Sangh Prakashan.

Open Access Journals & Online Resources:

1. Economic and Political Weekly. (n.d.). *EPW Journal*. Mumbai: Sameeksha Trust. Available at: https://www.epw.in
2. Journal of Development Economics. (n.d.). *Development Economics Research Journal*. Amsterdam: Elsevier. (Partially Open Access).
3. World Development. (n.d.). *An International Journal of Development Studies*. Amsterdam: Elsevier. (Hybrid Open Access).

4. NITI Aayog. (n.d.). *Strategy Papers, SDG India Index & Policy Reports*. New Delhi: Government of India. Available at: https://www.niti.gov.in
5. Reserve Bank of India. (n.d.). *Publications, Reports and Statistics*. Mumbai: RBI. Available at: https://www.rbi.org.in
6. National Institute of Public Finance and Policy. (n.d.). *Working Papers & Research Publications*. New Delhi: NIPFP. Available at: https://www.nipfp.org.in
7. Ministry of Finance. (n.d.). *Budget Documents & Economic Reports*. New Delhi: Government of India. Available at: https://www.indiabudget.gov.in
8. Government of India. (n.d.). *Open Government Data Platform India*. Available at: https://data.gov.in
9. World Bank. (n.d.). *World Development Indicators & Open Data*. Washington, D.C. Available at: https://data.worldbank.org
10. International Monetary Fund. (n.d.). *Country Reports & Data Portal*. Washington, D.C. Available at: https://www.imf.org

Money and Banking
Semester: VI

Course Code: ECO-362-MJ **Total Credits: 04**

Course Objectives

- To introduce theoretical concepts related to money and banking.
- To introduces the board structure and functioning of banking and financial institutions.
- To introduce the concept of interest rate and its various theories.
- To expose to various important international financial institutions.

Course Outcomes:

- Students will know different Indian banking system.
- Students will know different concept and theories of money.
- Students will know how to calculate rate of interest.

Unit 1. Concept of Money **(15 Hours)**

1.1 Money: Introduction, definitions, types and functions.
1.2 Value of money
1.3 Demand for money: Fisher, Cambridge, Keynesian and Friedman theories.
1.4 Supply of money: mechanics of money supply creation, money multiplier process
1.5 measures of money supply in India.

Unit 2. Rate of Interest and Modern Finance **(15 Hours)**

2.1 Rate of Interest: Meaning and Classification of Interest.
2.2 Determination; Factors affecting the level of interest rates.
2.3 Theories of interest: Classical theory of interest, Neo classical theory of interest and Keynesian theory of interest.
2.4 Modern Finance: Digital currencies, cryptocurrencies, and international monetary cooperation
2.5 Small financial bank and payment bank

Unit 3. Commercial and Central Banking System **(15 Hours)**

3.1 Central Banking: Meaning and functions, techniques of credit control with special reference to India, credit policy in India.
3.2 Commercial Banks: Meaning, types, functions and credit creations.
3.3 Commercial banks in India: Structure, growth and Nationalization-objective and performance.
3.4 Regional Rural Banks and Co-operative Banks: Evolution, structure, features and growth.
3.5 Digital Banking: E-Banking, mobile banking, e-wallets, UPI, NEFT, RTGS.

Unit 4. International Banking Institutions **(15 Hours)**

4.1 International Monetary System: Problem of International liquidity.
4.2 Basel Norms and Implementation in India
4.3 IMF: Its working and role in international financial system.
4.4 World bank: Evolution, structure, functions and role.
4.5 Asian Development Banks: Structure, role and functions.

Basic Reading List:

- Financial Institution and Market : L. M. Bhole
- Financial market and institutions of India : Dr. Mukund Mahajan, Nirali Prakashan

- Indian Banking System : Dr. B. R. Sangale, Success Publication, Pune.
- Business Finance and Financial Services : Dr. Mukund Kohok
- Indian Financial System : Dr. M. Y. Khan
- Investment and Securities Markets in India : V. A. Avadhani
- Economic Reforms and Capital Markets in India : Anand Mittal
- Bharatiya Vitta Bajar : Dr. Shinde S. G., Success Publication, Pune.
- The Indian Financial System : Bharati V. Pathak
- L M Bhole and Jitendra Mahakud, Financial Institutions and Markets, Tata Mc Graw Hill, 2009.
- F S Mishkin, The Economics of Money, Banking, and Financial Markets, Prentice Hall, 2007.
- S B Gupta, Monetary Economics, S Chand Limited, 1988. Economic Survey, Ministry of Finance, Government of India.

GENDER ECONOMICS

Course Code: ECO-363-MJ **Course credit: 04**

Objectives:

- Understand the role of gender in economic theory and practice.
- Examine how gender inequalities manifest in labour markets, households, and public policy.
- Analyze feminist economic theories and the contributions of women economists.
- Explore the impact of globalisation, development, and social norms on gendered economic outcomes.

Course Outcomes:

- Students would describe and critically discuss how incorporating the gender dimension influences economic development and how economic development also impacts the gender discourse.
- Students would understand gender inequalities in many spheres of the economy and how they become an obstacle to development.
- Thoroughly understand common economic problems in developing and developed countries and how they affect different social groups.

Unit 1: Introduction of Gender Economics (15 Hours)

- Definition and scope of Gender Economics:
- Difference between Gender and Sex
- Feminist economics vs mainstream economics
- Women's Contribution to GDP - Estimation of Women's Unpaid Work
- Gender discrimination in hiring and promotion

Unit 2: Economic Growth and Gender Equality (15 Hours)

- Economic Growth and Gender Equality:
- Globalization of the World Economy and Gender Status
- Impact of Economic Growth on Gender Equality
- Concept of the Feminization of Poverty - Basic Causes - Problems of Measuring the Feminization of Poverty
- Gender budget

Unit 3: Gender Equity in Household Economics (15 Hours)

- Gender Equity in Household Economics: Distribution of Resources and Decision-Making Mechanisms Within the Household
- Theoretical Concepts - Work in the Labour Market - Work in the Household - Model of Investment in Human Capital - Marital and Age-Dependent Models of Female and Male Employment
- Meaning of Gender Equity and Equality - Gender Equity Index - Gender Inequality Index of UNDP – Gender Status Index - Gender in Human Development - Gender Development Index-
- Gender Empowerment Measure - Gender in Social Development Indicators - the OECD Social Institutions and Gender Index (SIGI).

Unit 4: Gender Development Initiatives (15 Hours)

- Gender Development and Empowerment Policies - Gender Inclusive Planning –
- Gender Sensitization of institutions and policies
- Mainstreaming Gender into Development Policies
- Role of Institutions in Gender Mainstreaming - Rights-Based Approach to Gender Development - Democratic Decentralization (Panchayats) and Women's Empowerment in India.

References and Readings:

1. Agarwal, B., Bargaining and Gender Relations: Within and Beyond the Household, Feminist Economics, Spring.
2. Batliwala, S., The Empowerment of Women in South Asia: Concepts and Practices, Sage, New Delhi.
3. Boserup, Ester. Women's Role in Economic Development, New York: St. Martin's Press.
4. Bowles, Gloria, and Dueli Klein Kenate, Theories of Women's Studies, New York.
5. Committee on the Status of Women in India, Towards Equality: Report of the Committee. PG Economics CBCS & CGPA Scheme Syllabus 2018- 19 Revised.
6. Hunt, J, Introduction to Gender Analysis Concepts and Steps, Development Bulletin.
7. Irene Tinker, Persistent Inequalities: Women and World Development, OUP, New York.
8. John, Mary E., Gender and Development in India, EPW.
9. Kabeer Naila, Reversed Realities: Gender Hierarchies in Development Thought, Kali for Women, New Delhi.
10. Klasen S. (2006) UNDP's Gender-Related Measures: Some Conceptual Problems and Possible Solutions, Journal of Human Development and Capabilities.

SUGGESTED READINGS

1. Agnihotri, S.B. (2000): Sex ratio in Indian Population: A Fresh Exploration, Sage Publications, Delhi.
2. Baud, I.S. A. (1992): Forms of Production and Women's Labour: Gender Aspects of Empowerment in South Asia, Vistaar Publications, New Delhi.
3. Boserup, E (1970): Women's Role in Economic Development, George Allen and Unwin, London.
4. Carr M.C., Martha and R. Jhabvala (Eds) (1997): Speaking Out: Women's Economic
5. Desai, N. and M. K. Raj (Eds) (1979): Women and Society in India, Research Centre for Women

Elementary Econometrics
SEM VI

Course Code: ECO-368-MJE **Credit: 04**

Course Description

Elementary Econometrics introduces students to the application of statistical and mathematical techniques to analyze economic relationships. The course develops an understanding of regression analysis, estimation methods, hypothesis testing, and common econometric problems. It equips students with the ability to interpret real-world data and apply econometric tools for decision-making and policy analysis.

Course Outcomes (COs)

- Explain the nature, scope, and methodology of econometrics and distinguish between correlation and causation.
- Understand and interpret simple and multiple regression models and their assumptions.
- Apply the Ordinary Least Squares (OLS) method for estimation of regression models.
- Analyze regression results using statistical tools such as R^2, t-test, F-test, and confidence intervals.
- Evaluate problems such as heteroscedasticity, autocorrelation, and multicollinearity.

Unit 1: Introduction to Econometrics

1.1 Meaning, nature and scope of Econometrics
1.2 Historical and modern interpretation of Econometrics
1.3 Econometrics vs Statistics and Mathematical Economics
1.4 Regression vs correlation and causation
1.5 Types of Econometrics
1.6 Nature, types, and sources of data (Cross-section, Time series, Panel data)
1.7 Methodology of Econometrics
1.8 Role of econometrics in economic analysis and policy

Unit 2: Two-variable regression model

2.1 Concept of population regression function (PRF) and Sample regression function (SRF)
2.2 Two Variable Classical linear regression model (CLRM)
2.3 Assumptions of Classical Linear Regression Model
2.4 Interpretation of coefficients,
2.5 goodness-of-fit (R^2 &n adjusted R^2)
2.6 Error term & residuals

Unit 3: Two-variable regression model-Estimation

3.1 Method of Ordinary Least Squares (OLS)
3.2 Properties of OLS estimators (The Gauss-Markov Theorem)
3.3 Derivation of OLS estimators
3.4 Concept of BLUE (Best Linear Unbiased Estimator)
3.5 Standard error of estimates
3.6 Numerical examples and interpretation

Unit 4: Regression analysis: Statistical Analysis and Interpretation

4.1 Statistical analysis and interpretation of results
4.2 Hypothesis testing: Null and Alternative Hypothesis,
4.3 Type I and Type II errors
4.4 Test statistic: t-test and F-test, Critical Region & p-value.
4.3 Level of significance and confidence interval approach;
4.4 Goodness of Fit (R^2): Concepts of Explained Sum of Squares (ESS)-Residual Sum of Squares -Total Sum of Squares

Textbooks

1. Gujarati, D. N., & Porter, D. C. (2009). Basic econometrics (5th ed.). McGraw-Hill Education.
2. Wooldridge, J. M. (2016). Introductory econometrics: A modern approach (6th ed.). Cengage Learning.
3. Stock, J. H., & Watson, M. W. (2019). Introduction to econometrics (4th ed.). Pearson.

Reference Books (APA Style)

1. Studenmund, A. H. (2017). Using econometrics: A practical guide (7th ed.). Pearson.
2. Kennedy, P. (2008). A guide to econometrics (6th ed.). Wiley-Blackwell.
3. Gujarati, D. N. (2015). Econometrics by example (2nd ed.). Palgrave Macmillan.
4. Angrist, J. D., & Pischke, J.-S. (2009). Mostly harmless econometrics: An empiricist's companion. Princeton University Press.
5. Greene, W. H. (2018). Econometric analysis (8th ed.). Pearson.
6. Brooks, C. (2019). Introductory econometrics for finance (4th ed.). Cambridge University Press.

Rural Economics
SEM VI

Course Code: ECO-369-MJE **Credit: 04**

Course Objectives:

- The basic objective of this paper is to grasp the basic features and aspects of rural economics.
- To study the current issues of rural economics.
- To study the institutions involved in rural credit.
- To study the recent rural development programs.
- To assist students in various competitive examinations.
- To familiarize the students with the recent developments in the rural sectors.

Course Outcomes:

- To understand the recent rural development programs.
- To familiarize students with policy that are relevant to Indian rural development.
- To provide the knowledge of various problems and infrastructure development in rural sectors.

Unit 1. Introduction (15 Lectures)

1.1 Concept objective and importance of rural development.
1.2 Provision of urban amenities in rural areas (PURA).
1.3 Gandhian approach to rural development.
1.4 Land reforms in rural development: concept, meaning and approaches.

Unit 2. Aspects of Rural Development (15 Lectures)

2.1 Rural infrastructure- roads, railways, irrigation, electricity, housing, sanitation, communication links.
2.2 Rural indebtedness- magnitude, causes and remedial measures.
2.3 Rural credit- institutional sources of credit and non-institutional sources of credit.
2.4 Rural entrepreneurships- meaning and concept.
2.5 Cottage industries- growth, problems and solutions.
2.6 Rural industrialization and Agro-based industries
2.7 Food security in India

Unit 3. Problems of Rural Development (15 Lectures)

3.1 Rural unemployment- meaning, causes and remedies
3.2 Status of rural women in India.
3.3 Migration of rural population- causes and solutions.
3.4 Rural poverty -causes and remedies.

Unit 4. Rural Development Programs (15 Lectures)

4.1 TRYSEM
4.2 IRDP
4.3 Swarn Jayanti Gram Swarojgar Yojana
4.4 MGNREGA
4.5 DAY-NRLM

Basic Reading List:

- Anirudh Pandit, March 2020, Rural Development, Published by Notion Press, Delhi
- Annual reports: Ministry of Rural Development, Govt. of India.
- Datt Gaurav, Sundharam, Nag Biswajit, (2023), Indian Economy, S. Chand & Co. Ltd.
- Desai Vasant, 2009- Rural development in India, Himalaya Publishing House, Mumbai Third Edition.

• Sagar Mandal, G.L.Ray, 2021, Textbook of Rural Development, Entrepreneurship and Communication Skill, published by Kalyani Publication, New Delhi
• Sundaram I. Satya, 2011-Rural Development, Himalaya Publishing House, Mumbai Fourth Edition.
• Satyanarayana G.Madhusudana H.S.2012 Rural Development and Poverty Alleviation in India, New century Publication, New Delhi,.
• Singh Katar (1999), 'Rural Development- Principles, Policies and Management', Second Edition, Sage publications, New Delhi.
• Parthasarathy and Nancharaiah (2004),'Economic reforms and rural development in India', Academic Foundation, New Delhi.
• Nawar Rohini (1991), 'Rural poverty in India, Indian School of Political Economy, Pune.
• Dantwala M.L (1991), 'Agricultural Development in India since independence', Oxford and IBM, New Delhi.
• DandeV.M. and Rath N. (1971, 'Poverty in India', Oxford University Press, Mumbai

Introduction to R for Economic analysis
SEM VI

Course Code: ECO-371-VSC **Course Credits: 02**

Course Learning Objectives

- To develop a foundational understanding of the R programming language and its relevance to economics
- To acquire programming skills in R, to use it effectively for future modelling techniques and economic analysis.

Course Outcomes

- Apply R's basic structures to use R in practical scenarios for manipulation and analysis.
- Analyse and solve economic problems using programming skills in R.

Unit I : Model I **(30 Hours)**

Overview of the R programming language, Need and applications, Significance in Economic Analysis, installation and usage of R and R Studio, including GUIs for R, creating and storing R workspaces, installing packages, Understanding R Studio's interface and basic syntax. Variable Types: Numeric, Integers, Characters, Dates, Vector, Matrix, Array, Lists, Data Frames, Factors, Reading and writing data from tables, CSV files, and Excel worksheets Reading and writing Excel worksheets, Loading existing dataset.

Unit-II: Model II **(30 Hours)**

Operators, and Comments- Assignment, Relational, Arithmetic, Logical-Comments Flow Control- If, If/else, Nested If/else, Switch- For loop , While loop Break, next, repeat Importing Data file; Data visualisation using charts: histograms, bar charts, box plots, line graphs, scatter plots. etc; Data description: Measure of Central Tendency, Measure of Dispersion, Relationship between variables: Covariance, Correlation and coefficient of determination. Simple Linear Regression models; Confidence & Prediction intervals; Multiple Linear Regression.

Assessment Methods

Internal Assessment Methods (Continuous Evaluation) **(25 Marks)**

- Practical Assignments
- Lab Performance / Hands-on Work
- Mini Project / Case Study
- Viva Voce
- Internal Practical Test

External Assessment Methods (Final Examination) **(25 Marks)**

- **Practical Examination:** Students perform tasks in the lab within a fixed time.

List of Practicals:

- Install and explore the basic interface of R programming language and RStudio, and execute simple commands to understand the working environment.

- Create, save, and load R workspaces and use working directory functions such as getwd() and setwd().
- Study different data types in R such as numeric, integer, character, and date, and understand data structures like vectors, matrices, arrays, lists, data frames, and factors.
- Create and manipulate vectors, perform arithmetic operations, and practice indexing and subsetting.
- Create matrices and arrays and perform operations such as addition, multiplication, and accessing elements.
- Create and manage data frames, including adding, modifying, and deleting variables and observations.
- Import data from CSV files using appropriate functions and export datasets into CSV format.
- Read and write Excel files using relevant R packages such as readxl and writexl.
- Apply different types of operators in R, including arithmetic, relational, logical, and assignment operators, and use comments for documentation.
- Implement decision-making statements such as if, if-else, nested conditions, and switch statements.
- Use looping structures such as for, while, and repeat, and apply control statements like break and next.
- Create data visualisations using histograms, bar charts, box plots, line graphs, and scatter plots.
- Calculate and interpret measures of central tendency, such as mean and median, and measures of dispersion, such as variance and standard deviation.
- Analyse the relationship between variables by computing covariance and correlation coefficients and interpreting the results.
- Perform simple and multiple linear regression analysis, interpret coefficients, and estimate confidence and prediction intervals.

Reference Books:

1. Giri, A., & Paul, P. (2021). Applied marketing analytics: using spss (modeler, statistics and amos graphics). Delhi, India: PHI Learning Pvt. Ltd.

2. Kumar, D. U. (2017). Business analytics: the science of data driven decision making. New Jersey, United States: Wiley.

3. McKee, A. (2003). Textual analysis: a beginner's guide.(1st ed.). London, United Kingdom: Sage Publication.

4. Motwani, B. (2019). Data analytics with r. New Jersey, United States: Wiley.

5 North, M. (2012). Data mining for the masses. Athens, Georgia: Global Text Project.

6. Ohri, A (2012). R for business analytics. Springer.

7. Paul, T. (2011). R cookbook. New York, United States: O Reilly Media.

8. Provost, F., & Fawcett, T. (2013). Data science for business. New York, United States: O'Reilly Media.

9. Rao, P. H. (2013). Business analytics—an application focus. Delhi, India: PHI Learning Private Limited.

Behavioural Economics

Course Code: ECO-372-VSC **Credits:2**

Course Objectives

- To understand the role of psychological, cognitive, and social factors in influencing economic decision-making and market outcomes.
- To examine the applications of behavioural economics in consumer behaviour, finance, public policy, and development economics.

Course Outcomes

After successful completion of the course, students will be able to:

- Explain and analyze economic behaviour using key concepts and theories of behavioural economics.
- Apply behavioural economics principles to understand and evaluate real-world issues in consumer behaviour, finance, public policy, and economic development.

Unit I: Foundations of Behavioural Economics **(15 Hours)**

1.1 Introduction to Behavioural Economics Meaning, Nature and Scope Behavioural Economics and Neoclassical Economics Rationality and Bounded Rationality

1.2 Psychological Foundations of Economic Behaviour Heuristics and Cognitive Biases Prospect Theory Framing Effects Loss Aversion and Endowment Effect

1.3 Decision Making under Risk and Uncertainty Expected Utility Theory Behavioural Critique of Expected Utility Theory

1.4 Time Preferences and Self-Control, Present Bias, Hyperbolic Discounting Commitment Devices

1.5 Behavioural Game Theory, Fairness and Reciprocity, Trust and Cooperation Ultimatum and Dictator Games

Unit II: Applications of Behavioural Economics **(15 Hours)**

2.1 Consumer Behaviour and Choice Architecture: Consumer Biases, Behavioural Insights in Consumer Decision-Making, Choice Architecture

2.2 Behavioural Finance-Investor Psychology, Overconfidence Bias, Herd Behaviour, Market Anomalies

2.3 Nudge Theory and Public Policy- Concept and Types of Nudges, Libertarian Paternalism

Applications in Health, Education, Savings, and Tax Compliance

2.4 Behavioural Economics and Development, Poverty and Decision-Making, Financial Inclusion, Behavioural Interventions in Developing Economies

2.5 Recent Developments in Behavioural Economics, Happiness Economics, Behavioural Public Economics, Digital Nudging and Behavioural Insights

Suggested References

- Kahneman, D. (2011). Thinking, Fast and Slow. New York: Farrar, Straus and Giroux.
- Thaler, R. H. (2015). Misbehaving: The Making of Behavioral Economics. New York: W. W. Norton & Company.
- Thaler, R. H., & Sunstein, C. R. (2008). Nudge: Improving Decisions About Health, Wealth, and Happiness. New Haven, CT: Yale University Press.

- Rabin, M. (1998). Psychology and Economics. Journal of Economic Literature, 36(1), 11–46.
- Cartwright, E. (2018). Behavioral Economics (3rd ed.). London: Routledge.
Additional References
- Wilkinson, N., & Klaes, M. (2018). An Introduction to Behavioral Economics (3rd ed.). London: Palgrave Macmillan.
- Angner, E. (2020). A Course in Behavioral Economics (3rd ed.). London: Red Globe Press.
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