

**Syllabus for Two-Year Post Graduate  
Programme Under NEP 2020**

**Department of Economics  
School of Humanities and Social Sciences  
H.N.B. Garhwal University  
Srinagar (Garhwal)**

**Approved by**

**Board of Studies convened on  
1<sup>st</sup> & 2<sup>nd</sup> April, 2026  
(For P.G. 2 Year Programme)**

*w.e.f. Academic Session 2026-27*

**HNB Garhwal University (A Central University)  
Srinagar Garhwal, Uttarakhand**

## Programme Structure

### P.G. First Year (for 2-year P.G. program)

#### First Semester for 2-year P.G. program

(For non-practical/practical based subjects)

<b>Entry requirement</b>	3-year Bachelor's degree (minimum 120 credits) or 4-Year Bachelor's Degree (In case of B.Tech and B.E programme-Minimum-160 credits) and candidates who have met the entrance requirements, including specified levels of attainment, in the programme admission regulations.	
<b>Course category</b>	<b>Semester-I</b>	<b>Credits</b>
<b>Discipline Specific Core (DSC)</b>	DSC-1 Advanced Micro Economics-I	5
	DSC-2 Advanced Macro Economics-I	5
	DSC-3 Research Methodology	5
<b>Discipline Specific Skill enhancement course (DSEC)</b>	DSEC-Quantitative Methods	5
<b>Discipline Specific Elective (DSE)</b>	DSE-1	4
	DSE 1(a) - Mathematical Economics-I (Swayam Course*) DSE 1 (b) -Indian Financial System-I DSE- 1 (c)- Regional planning & Development	
	or	
<b>Multidisciplinary Elective (M.D.E)</b>	M.D.E-1 Financial literacy, Investment & Stock Market	4
<i>A student may opt for either one Discipline Specific Elective (DSE) or one Multidisciplinary Elective (MDE) as an elective course.</i>		
<b>AEC (Non-CGPA Course)</b>	Indian Knowledge System	1
<b>Total Credits</b>		24

**Swayam Course:** For details and registration in Swayam course contact your Head of Department

#### Second Semester for 2-year P.G. program

(For non-practical/practical based subjects)

<b>Course category</b>	<b>Semester-II</b>	<b>Credits</b>
<b>Discipline Specific Core (DSC)</b>	DSC-4 Advanced Micro Economics-II	5
	DSC-5 Advanced Macro Economics-II	5
	DSC-6 International Economics	5
<b>Discipline Specific Skill enhancement course (DSEC)</b>	DSEC-2 Project Work	5
<b>Discipline Specific Elective (DSE)</b>	DSE-2	4
	DSE-2 (a) - Mathematical Economics-II DSE 2 (b) -Indian Financial System-II DSE 2 (c)- Sectoral Dynamics of Uttarakhand	
	or	
<b>Multidisciplinary Elective (M.D.E)</b>	M.D.E-2 Fundamental & technical analysis of stocks	4
<i>A student may opt for either one Discipline Specific Elective (DSE) or one Multidisciplinary Elective (MDE) as an elective course.</i>		
<b>VAC (Non-CGPA Course)</b>	Constitution, Ethical and Moral Values	1
<b>Total Credits</b>		24

**Third Semester for 2-year P.G. program**  
(For non-practical/practical based subjects)

Course category	Semester-III	Credits
<b>Discipline Specific Core (DSC)</b>	DSC-7 Indian Public Finance	5
	DSC-8 Dissertation	5
	DSC-9 Economic Growth and Development	5
	DSC-10 Demography-I	5
<b>Discipline Specific Elective (DSE)</b>	DSE-3	4
	(a) Agricultural Economics-I	
	(b) Environmental Economics	
	(c) Econometrics	
	(d) Labour Economics-I	
or		
<b>Multidisciplinary Elective (M.D.E)</b>	M.D.E-3	4
	Health Economics	
<i>A student may opt for either one Discipline Specific Elective (DSE) or one Multidisciplinary Elective (MDE) as an elective course.</i>		
<b>SEC (Non-CGPA Course)</b>	Academic Library Systems and Services	1
or		
<b>SEC (Non-CGPA Course)</b>	Entrepreneurship & Startup Awareness	1
<b>Total Credits</b>		24

**Fourth Semester for 2-year P.G. program**  
(For non-practical/practical based subjects)

Course category	Semester-IV	Credits
<b>Discipline Specific Core (DSC)</b>	DSC-11 Monetary Economics	5
	DSC-12 Indian Economic policies	5
	DSC-13 India and Global Economy	5
	DSC-14 Demography-II	5
	*DSC-15- Dissertation/Project Work	5
<i>*Students may opt for Dissertation/Project Work in lieu of any one DSC course</i>		
<b>Discipline Specific Elective (DSE)</b>	DSE-4	4
	(a) Agricultural Economics-II	
	(b) Financial Econometrics (Swayam Course*)	
	(c) Gender Economics	
or		
<b>Multidisciplinary Elective (M.D.E)</b>	M.D.E-4	4
	(a) Energy Economics	
<i>A student may opt for either one Discipline Specific Elective (DSE) or one Multidisciplinary Elective (MDE) as an elective course.</i>		
<b>SEC (Non-CGPA Course)</b>	Community outreach activities	1
<b>Total Credits</b>		24

**Swayam Course: For details and registration in Swayam course contact your Head of Department**

## Semester I

### DSC-1 Advanced Micro Economics-I

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Define and explain consumer behaviour and theories of production and cost.</b></li><li>• <b>CO2: Explain consumer behaviour through indifference curve analysis, price-income-substitution effects, and revealed preference theory.</b></li><li>• <b>CO3: Apply demand and consumer surplus theories to analyze market behaviour and equilibrium.</b></li><li>• <b>CO4: Analyze consumer behaviour, production functions and cost functions.</b></li><li>• <b>CO5: Evaluate consumer behaviour, firm decisions and efficiency.</b></li></ul>

#### Unit-1 Theory of Consumer Behaviour

Indifference curve approach; Price, Income and Substitution effects (Hicks and Slutsky); Revealed preference theory; Applications of Indifference Curve Analysis; The Consumer's surplus (Marshall and Hicks). Revision of Demand theory by Hicks.

#### Unit-2 Development in Demand theory

Linear expenditure system; Indirect utility function; Theory of consumer demand: Bandwagon effect – Veblen effect – demand and supply equilibrium; Cob-web theorem.

#### Unit-3 Production and Costs

Law of variable proportions and Returns-to-scale; Producer's equilibrium; Production functions: Cobb-Douglas, CES functions and their properties. Cost: Cost Functions – short run and long run costs; Average and Marginal Costs; Theory of Long Run costs; Modern theory of Costs.

#### Unit-4 Decision under Risk and Uncertainty

ST. Petersburg paradox and Bernoulli's Hypothesis; Utility theory and attitude towards risk; Risk aversion and Insurance; Friedman-Savage Hypothesis; Markowitz Hypotheses; Risk-return trade-off and choice of a portfolio; Linear Programming.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Ahuja H.L. (2024) *Advanced Economic Theory: Microeconomic Analysis*, Latest Edition, S. Chand and Company Ltd. New Delhi
2. Case, Karl E., Ray C. Fair and Sharon E. Oster (2013) *Principles of Economics*, (11th Edition), Prentice Hall of India, New Delhi
3. Koutsoyiannis, A. (1990) *Modern Microeconomics*, Macmillan Press Ltd., London
4. Layard, P.R.G. and A. W. Walters (1978) *Microeconomic Theory*, McGraw Hill, New York
5. Lipsey, R.G. and K.A. Chrystal (2004) *Principles of Economics*, (9th Edition), Oxford University Press, New Delhi
6. Perloff, Jeffrey M. (2001) *Micro Economics*, Addison Wesley Longman Pvt. Ltd., New Delhi
7. Sen, A. (1999) *Microeconomics Theory and Applications*, Oxford University Press, New Delhi
8. Stigler, G. (1996) *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi
9. Varian, H. (2000) *Microeconomic Analysis*, W. W. Norton, New York

## DSC-2 Advanced Macro Economics-I

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Describe and compare Classical, Keynesian and Post-Keynesian theories of income and employment.</b></li><li>• <b>CO2: Explain classical and Keynesian theories of income, employment, and macroeconomic equilibrium.</b></li><li>• <b>CO3: Apply monetarist and structuralist approaches to analyze inflation, unemployment, and policy responses.</b></li><li>• <b>CO4: Analyze the assumptions, applications and policy implications of Nudge theory and Commons theory.</b></li><li>• <b>CO5: Evaluate macroeconomic policies and business cycles.</b></li></ul>

### Unit 1: Classical and Keynesian Economics

Classical Doctrine; Say's Law of Market-wage price flexibility, Classical theory of employment; Keynes Theory of Income and Employment, Macro-economic equilibrium: AS-AD model- with variable prices.

### Unit 2: Monetarism

Main features of Monetarism; Monetarist approaches to inflation; Structuralist theory of inflation; Okun's Law, Phillips curve analysis – Short run and long run Phillips curve; NAIRU; natural rate of unemployment; Tobin's modified Phillips curve and policies to control inflation. Supply-side Economics.

### Unit 3: New Classical and New Keynesian Economics

Main features and comparison of New Classical and New Keynesian Economics; The new classical macroeconomic approach-Rational expectations-: Meaning and policy implications- Monetary, Fiscal Policy and Business Cycle. New Keynesian Models: Mankiw's New Keynesian Model, Price adjustment and coordination failure.

### Unit 4: Behavioural Economics

Introduction to Behavioural Economics and its difference from Traditional Economics; Theory of 'Nudge', Practical implications and case studies of 'Nudge'; Theory of 'Commons' and its Policy implications.

### Teaching Learning Process: Lectures and tutorials

### Suggested Readings:

1. Mankiw, N. G. (2015), Macroeconomics, 5th Indian Edition, Worth Publishers / Cengage India.
2. Dornbusch, R., S. Fischer, and R. Startz (2018), Macroeconomics, 12th Edition, Tata McGraw-Hill.
3. Blanchard, O. (2017), Macroeconomics, 7th Edition, Pearson India.
4. Romer, D. (2018), Advanced Macroeconomics, 5th Edition, McGraw-Hill India.
5. Froyen, R. T. (2013), Macroeconomics: Theories and Policies, 10th Edition, Pearson India.

## DSC-3 Research Methodology

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Define research objectives, importance, types and stages of the research process.</b></li><li>• <b>CO2: Explain sampling methods, sampling design and research design.</b></li><li>• <b>CO3: Apply hypothesis testing and MS Office tools in research.</b></li><li>• <b>CO4: Analyze and process research data for interpretation and reporting.</b></li><li>• <b>CO5: Evaluate measurement and scaling techniques used in research.</b></li></ul>

**Unit-1:** Research: Meaning, Objectives, Importance and Types; Research process; Research Problem, Research Design and Sampling Design; Sampling Methods.

**Unit-2:** Methods for collection of Primary Data; Sources of Secondary Data; Drafting of Questionnaires and Schedules; Measurement and Scaling.

**Unit-3:** Hypothesis: Meaning, Formulation and Testing; Z, t, F and Chi-square tests.

**Unit-4:** Data Processing, Interpretation and Report writing, Basic use of MS Office in Research.

### **Teaching Learning Process: Lectures and tutorials**

### **Suggested Readings:**

1. Business Research Methods, Donald R Cooper, McGraw Hill, New Delhi
2. Research Methodology, Cauvery.R, Sudhanayak U.K, Girija.M and Meenakshi.R, S.Chand & Company Ltd, New Delhi.
3. Research Methodology: A Guide for Researchers in Management and Social Sciences, Bill Taylor, Gautam Sinha, Taposh Ghoshal, Prentice-Hall of India Private Limited, New Delhi
4. Research Methodology: Methods and Techniques, C.R. Kothari, New Age International, New Delhi
5. Statistical Methods, 2004, S.P. Gupta, S.Chand publication, New Delhi Statistical Methods, D.R. S.P. Gupta, Sultan Chand & Sons, New Delhi Statistics for Management, Levin and Rubin, Asian Publishing House, New Delhi

## DSEC-1: Quantitative Methods

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Identify rules of differentiation, integration and matrix operations.</b></li><li>• <b>CO2: Explain the role of mathematics in economic theory.</b></li><li>• <b>CO3: Apply parametric and non-parametric hypothesis tests for decision making.</b></li><li>• <b>CO4: Analyze optimization of economic functions and relationships among total, marginal and average concepts.</b></li><li>• <b>CO5: Evaluate price elasticity of demand and supply for decision making.</b></li></ul>

**Unit-1: Statistical inference:** Parametric and Non-Parametric test, Assumption of Normality; Measures of Central Tendency, Dispersion; correlation and regression.

**Unit-2: Time series analysis & Index Numbers:** Time series -Meaning and components of Time series analysis; moving averages, trends, forecasting techniques; Index Number- Meaning, types and limitations, construction of index numbers Laspeyres, Paasche, and Fisher. Ideal Index number.

**Unit-3: Differentiation and Integration:** Concepts of functions, limits, and continuity. Meaning of differentiation and integration, Rules of differentiation and integration; partial differentiation, total differentiation; definite integration; Applications of the differentiation and integration in Economics: maxima-minima, elasticity of demand, cost and revenue functions.

**Unit-4: Matrix and Determinants:** Meaning and types; Simple operations on matrices; Basic properties of determinants, Solution of simultaneous equations with determinant method.

### Teaching Learning Process: Lectures and tutorials

### Suggested Readings:

1. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press and ELBS, London.
2. Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
3. Gupta, S.C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
4. Handry, A.T. (1999), Operations Research, Prentice Hall of India, New Delhi.
5. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi.
6. Spiegel, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
7. Taha, H.A. (1997), Operations Research: An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd., New Delhi.
8. Yamane, Taro (1975), Mathematics for Economists, Prentice Hall of India, New Delhi.

## DSE 1

### DSE 1(a) - Mathematical Economics-I

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Define set theory concepts and matrix operations.</b></li><li>• <b>CO2: Explain model-building by translating economic problems into symbols, numbers and equations.</b></li><li>• <b>CO3: Apply linear programming to solve optimization problems.</b></li><li>• <b>CO4: Analyze input-output models using matrix methods.</b></li><li>• <b>CO5: Evaluate effects of change and techniques for improving economic decision-making.</b></li></ul>

### Swayam Course

[https://onlinecourses.swayam2.ac.in/cec25\\_mg20](https://onlinecourses.swayam2.ac.in/cec25_mg20)

### Course outline

**Week 1:** Number Systems, Set Theory and Functions

**Week 2:** Economic Models

**Week 3:** Utility and Partial Equilibrium Market Model

**Week 4:** Matrix Algebra

**Week 5:** Application of Matrix in Market Model and National Income Model

**Week 6:** Input-Output Analysis

**Week 7:** Differentiation

**Week 8:** Linear Programming

**Week 9:** Duality in Linear Programming

**Week 10:** Integration and its Applications

**Week 11:** Differential Equations

**Week 12:** Exact Differential Equations and Second Order Differential Equations

**Week 13:** Difference Equations

**Week 14:** Applications of Difference Equations in Economics

**Week 15:** Computational Economics

### References:

- Chiang, Alpha C. (1984). Fundamental Method of Mathematical Economics, Third Edition, McGraw Hill
- Rosser, Mike. (2003). Basic Mathematics for Economists, Second Edition, Routledge, Taylor & Francis Group
- Handerson, Quandt. (1980). Microeconomic Theory, A Mathematical Approach, Third Edition, McGraw Hill

## DSE 1(b) Indian Financial System-I

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Identify and describe the structure and components of the Indian financial system, including financial institutions, markets, instruments and regulatory bodies.</b></li><li>• <b>CO2: Explain the functioning, interlinkages and roles of money, capital, debt and foreign exchange markets, as well as banking and non-banking financial institutions in India's financial framework.</b></li><li>• <b>CO3: Apply theoretical knowledge to examine how financial institutions, markets and the Reserve Bank of India influence credit flow, liquidity and financial stability.</b></li><li>• <b>CO4: Analyse the differences and linkages among financial markets, banking operations and monetary policies to identify challenges and trends in financial deepening, inclusion and digital transformation.</b></li><li>• <b>CO5: Evaluate the performance, efficiency and policy effectiveness of India's financial and banking systems in promoting sustainable economic growth and recommend suitable reforms.</b></li></ul>

### Unit-1 Introduction to Indian Financial System

Structure and components of the Indian financial system; Financial intermediation; Financial deepening and financial inclusion; Role of finance in economic development; Digital transformation of the financial system.

### Unit-2 Financial Markets in India

Money market: Structure, instruments, and operations; Capital market: Primary and secondary markets; Government securities market; Corporate debt market; Derivatives market; Foreign exchange market; Integration of financial markets

### Unit-3 Banking System in India

Meaning and Functions of Commercial Banks, Regional Rural Banks, Cooperative Bank, Small Finance Banks and Payment Banks; Priority sector lending; non-performing assets; Insolvency and Bankruptcy code 2016; Financial technology in banking.

### Unit-4 Reserve Bank of India and Monetary Policy

Functions of RBI; Monetary policy meaning, instruments and objectives; inflation targeting framework. Monetary Policy Committee (MPC)-role and function.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Bhole, L.M. and Mahakud, J. (2017) **Financial Institutions and Markets: Structure, Growth and Innovations**, McGraw Hill Education, New Delhi
2. Khan, M.Y. (2018) **Indian Financial System**, McGraw Hill Education, New Delhi
3. Machiraju, H.R. (2020) **Indian Financial System**, Vikas Publishing House, New Delhi
4. Pathak, Bharati V. (2021) **The Indian Financial System: Markets, Institutions and Services**, Pearson Education, New Delhi
5. Srivastava, R.M. and Nigam, D. (2016) **Financial Markets and Institutions**, Himalaya Publishing House, Mumbai
6. Machiraju, H.R. (2018) **Working of Stock Exchanges in India**, New Age International Publishers, New Delhi
7. Report on Currency and Finance (Latest), Reserve Bank of India, Mumbai
8. Report on Trend and Progress of Banking in India (Latest), Reserve Bank of India, Mumbai
9. Annual Report (Latest), Securities and Exchange Board of India, Mumbai

## DSE 1 (c) Regional Planning and Development

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Define and explain key concepts, characteristics, types of regions and theories of regional development.</b></li><li>• <b>CO2: Explain sectoral, spatial, integrated, participatory and sustainable approaches to regional planning and identify factors influencing regional development and regional disparities.</b></li><li>• <b>CO3: Apply analytical tools and techniques such as the Gini coefficient, Theil index, GIS, remote sensing and scalogram to assess regional inequalities and address development challenges.</b></li><li>• <b>CO4: Analyse regional disparities through development theories and examine the effectiveness of India's regional development policies and programmes.</b></li><li>• <b>CO5: Evaluate the impact of decentralized governance frameworks, special regional initiatives and sustainable development strategies on balanced regional growth.</b></li></ul>

### Unit- 1: Regional Economics and Concept of Region

Definition and scope of regional economics; Importance of regional economic analysis, Differences between regional and national economics; Differences between regional and urban planning Meaning and characteristics of a region, Types of regions in planning; Factors Influencing Regional Development; Measurement of Regional Disparities: Indicators of regional economic disparities; Methods to measure regional inequalities.

### Unit – 2: Methods and Approaches to Regional Planning

Traditional Approaches to Regional Planning: Sectoral Planning Approach, Spatial Planning Approach, Integrated Planning Approach; Participatory and Sustainable Planning Approaches: Bottom-Up and Community-Based Planning, Public-Private Partnerships (PPP), Sustainable Regional Development Models, Resilience Planning and Climate Adaptation Strategies, Tools and Techniques in Regional Planning: Gini Coefficient and Theil Index, GIS, Remote Sensing and Scalogram techniques.

### Unit – 3: Regional Planning and Development Theories

Growth pole theory; Central Place theory, Core-Periphery Model, Cumulative Causation Theory, Location Theory, Dependency Theory, Endogenous Growth Theory, Territorial Development Model.

### Unit – 4: Regional Development Policies and Programs

Decentralized Planning and Governance- Panchayati Raj System in India; Special Economic Zones (SEZs) and Industrial Corridors; Special Regional Planning Initiatives: Special Economic Zones (SEZs) and their impact, Backward Region Grant Fund (BRGF), Aspirational Districts Programme (ADP), Tribal Area Development Programs, Hill Area Development Program (HADP) and Desert Development Program (DDP), Vibrant villages programme; Rural development programs: PURA, RURBAN; Challenges in Regional Planning in India.

### Suggested Readings:

1. Christaller, W. (1933). *Central places in Southern Germany*. Prentice Hall (English Translation, 1966).
2. Friedmann, J., & Alonso, W. (Eds.). (1975). *Regional policy: Readings in theory and applications*. MIT Press.

3. Fujita, M., Krugman, P., & Venables, A. J. (1999). *The spatial economy: Cities, regions, and international trade*. MIT Press.
4. GIS Development. (2007). *Geoinformatics for regional development: Issues and applications*. GIS Development.
5. Government of India. (2005). Special Economic Zones (SEZ) in India: Policies, performance, and challenges. Ministry of Commerce and Industry.
6. Hall, P. (2002). *Urban and regional planning (4th ed.)*. Routledge.
7. Hall, P., & Pain, K. (2006). *The polycentric metropolis: Learning from mega-city regions in Europe*. Earthscan.
8. Harris, C. D. (1954). *The market as a factor in the localization of industry in the United States*. *Annals of the Association of American Geographers*, **44**(4), 315-348.
9. Hirschman, A. O. (1958). *The strategy of economic development*. Yale University Press.
10. Isard, W. (1975). *Introduction to regional science*. Prentice Hall.
11. McKee, R., Dean, J. M., & Leahy, W. H. (1970). *Regional economics: Theory and practice*. Free Press.
12. Mishra, R. P., Sundaram, K. V., & Others (Eds.). (1975). *Regional planning and national development*. Vikas.
13. Myrdal, G. (1957). *Economic theory and underdeveloped regions*. Harper & Row.
14. NITI Aayog. (2018). Aspirational districts programme: An overview. Government of India.
15. Perroux, F. (1950). *Economic space: Theory and applications*. *The Quarterly Journal of*
16. Planning Commission. (2014). Evaluation study of the Backward Region Grant Fund (BRGF) scheme. Government of India.
17. Porter, M. E. (1990). *The competitive advantage of nations*. Free Press.
18. Richardson, H. W. (1969). *Elements of regional economics*. Penguin.
19. Sen, A. (1999). *Development as freedom*. Oxford University Press.
20. Singh, K., & Bhattacharya, P. (2019). Rural development programmes in India: Strategies and implementation. Sage Publications.
21. Smith, D. M. (1971). *Industrial location: An economic geographical analysis*. John Wiley & Sons.

## M.D.E-1 Financial Literacy, Investment and stock markets

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Identify and explain the fundamentals of investment and stock markets.</b></li><li>• <b>CO2: Explain the fundamentals of financial literacy, budgeting, saving, taxation and money management.</b></li><li>• <b>CO3: Apply concepts of investment, risk and return to assess portfolio choices and financial decisions.</b></li><li>• <b>CO4: Analyze the structure and functioning of stock markets, including instruments, indices and mutual funds.</b></li><li>• <b>CO5: Evaluate the impact of macroeconomic and global factors on stock market performance.</b></li></ul>

### Unit-1 Financial Literacy

Meaning and Importance of Financial literacy; Basics of Money Management; Impact of Financial Decisions on Life; Identifying Financial Goals: Short-Term vs. Long-Term; How to create a Personal Budget; Importance of Saving and Emergency Funds; Rules of Budgeting; banking and Digital payments; Credit Score; Importance of Managing debt; Insurance for financial security; Income tax slabs and exemptions available under present financial year income tax structure; Time Value of Money; LTCG and STCG tax in India

### Unit-2 Investment and Stock Market

Importance of Investment; Difference between Saving and investment; power of compounding; Risk in investing; Factors determining the risk of investment in secondary market, Measuring Volatility through standard deviation, India Volatility Index, Beta; Determinants of rate of return; Risk and return relationship; calculation and usage of Reward to Risk Ratio (RRR); Key features of portfolio management, The choice of an investment portfolio

### Unit-3 Basics of Stock Market

Primary and Secondary market- IPO and Stock market; Working of stock market- stock exchanges, stock brokers, depositories; types of instruments available in stock market; different categories of stocks; Stock market indexes; Nifty 50, Bank Nifty etc Exchange traded funds; contract notes; GTD (good till date/day/time) in stock market; Mutual funds: Meaning, types and identifying a good mutual fund

### Unit-4 Macro-Economic Analysis and stock market

Association of Economic status of the country and stock markets; Understanding the correlation of economic parameters and stock market: GDP, IIP, Inflation, CRR, Unemployment, Budget, Monsoon, Demographic factors etc; Understanding the impact of International economic issues/parameters and their impact on Indian stock market; impact of international stock market on Indian stock market

**(Students will have to do an analysis of any four major economic events which have huge impact on the Nifty 50 index)**

### Suggested Readings

1. Halan, M. (2018). *Let's talk money: You've worked hard for it, now make it work for you.* HarperCollins India.
2. Lamba, A. (2019). *Financial affairs of the common man: Master the art of personal finance management.* Penguin Books.
3. Subramanyam, P. V. (2014). *Retire rich: Invest ₹40 a day.* TV18 Broadcast Ltd.

4. Kumar, A. (2017). *The richest engineer: The story of a young engineer who becomes a millionaire*. Notion Press.
5. Subramanyam, P. V., & Pattabiraman, M. (2016). *You can get rich too: With goal-based investing*. TV18 Broadcast Ltd.
6. Kiyosaki, R. T. (1997). *Rich dad poor dad: What the rich teach their kids about money*
7. Clason, G. S. (1926). *The richest man in Babylon*. Penguin Books.
8. Ramsey, D. (2003). *The total money makeover: A proven plan for financial fitness*. Thomas Nelson.
9. Robin, V., & Dominguez, J. (1992). *Your money or your life: Transforming your relationship with money and achieving financial independence*. Penguin Books.
10. Gala, J., & Gala, A. (2020). *Guide to Indian stock market*. Buzzingstock Publishing House.
11. Kejriwal, A. (2022). *Fundamental analysis for investors*. Vision Books.
12. Graham, B. (2006). *The intelligent investor: The definitive book on value investing*. HarperBusiness Essentials.
13. O'Neil, W. J. (2009). *How to make money in stocks: A winning system in good times and bad* (4th ed.). McGraw-Hill Education.
14. Pring, M. J. (2002). *Technical analysis explained: The successful investor's guide to spotting investment trends and turning points* (4th ed.). McGraw-Hill Education.
15. Wyss, B. O. (2001). *Fundamentals of the stock market*. McGraw-Hill Education.
16. Murphy, J. J. (1999). *Technical analysis of the financial markets: A comprehensive guide to trading methods and applications*. New York Institute of Finance.

## Semester-II

### DSC-4: Advanced Micro Economics-II

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Identify and explain the assumptions of different market structures.</b></li><li>• <b>CO2: Explain price and output determination under perfect competition, monopoly and monopolistic competition.</b></li><li>• <b>CO3: Apply theories of oligopoly, game theory and managerial models to explain firm behaviour and market outcomes.</b></li><li>• <b>CO4: Analyze welfare economics concepts using Pareto efficiency, Kaldor-Hicks criterion and social welfare functions.</b></li><li>• <b>CO5: Evaluate causes and consequences of market failures and propose policy measures for efficiency and welfare improvement.</b></li></ul>

#### Unit-1 Price and Output Determination in Markets

Perfect Competition: Equilibrium, Monopoly- Profit maximization, monopoly and social welfare: dead-weight loss; price discrimination and social welfare and dumping; Monopolistic competition: equilibrium, excess capacity.

#### Unit-2 Theories of the market and Firm

Oligopoly: Price Rigidity, Cartels, Cournot's and Chamberlin's Model; Game theory: Dominant Strategy, Neumann-Morgenstern theory, The Prisoners' Dilemma; Theories of the firm: Managerial-Williamson's and Baumol's Sales revenue maximisation theory; Limit Pricing- J.S Bain.

#### Unit-3 Welfare Economics

Concept of social welfare, Pareto optimality criterion and efficiency conditions, Kaldor-Hicks Criterion: Compensation principle, Bergson-Samuelson Social welfare function; Arrows Impossibility Theorem, Amartya Sen's Possibility Theorem.

#### Unit-4 Market Failures

Sources of Market failures and their implications, Externalities, Public Goods and Market failure, Information problem, Asymmetric information, Moral Hazard; Market signalling.

#### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Ahuja H.L. (2016) *Advanced Economic Theory: Microeconomic Analysis*, 20th Edition, S. Chand and Company Ltd. New Delhi
2. Case, Karl E., Ray C. Fair and Sharon E. Oster (2013) *Principles of Economics*, (11th Edition), Prentice Hall of India, New Delhi
3. Koutsoyiannis, A. (1990) *Modern Microeconomics*, Macmillan Press Ltd., London
4. Layard, P.R.G. and A. W. Walters (1978) *Microeconomic Theory*, McGraw Hill, New York
5. Lipsey, R.G. and K.A. Chrystal (2004) *Principles of Economics*, (9th Edition), Oxford University Press, New Delhi
6. Perloff, Jeffrey M. (2001) *Micro Economics*, Addison Wesley Longman Pvt. Ltd., New Delhi
7. Sen, A. (1999) *Microeconomics Theory and Applications*, Oxford University Press, New Delhi
8. Stigler, G. (1996) *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi
9. Varian, H. (2000) *Microeconomic Analysis*, W. W. Norton, New York

## DSC-5: Advanced Macro Economics-II

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Explain income, consumption and investment theories.</b></li><li>• <b>CO2: Explain key consumption and investment theories and their implications for macroeconomic stability.</b></li><li>• <b>CO3: Apply the IS-LM and aggregate supply models to assess monetary and fiscal policy interactions.</b></li><li>• <b>CO4: Analyze major theories of business cycles and assess the relative effectiveness of stabilization policies.</b></li><li>• <b>CO5: Evaluate open economy models to interpret exchange rate movements, capital flows and global macroeconomic linkages.</b></li></ul>

### **Unit 1: Income-Consumption and Investment Theories**

Psychological law of consumption; Relative Income hypothesis; Permanent Income hypothesis; Life Cycle hypothesis; Determinants of Investment: MEC, Investment multiplier and limitations; Accelerator: concept and working; Interaction of multiplier and accelerator; Investment behavior – influence of policy measures on investment, Tobin’s q theory of investment; impact of inflation on consumption and investment.

### **Unit-2: Neo Classical Synthesis and Interaction of Monetary and Fiscal Policy**

IS-LM model: The interaction of Real and Monetary sectors of the economy – Keynesian version of the IS-LM model – Neo-classical version of the IS-LM model; Fiscal and Monetary Policy analysis in an IS-LM model; Short run and long run Aggregate Supply curve analysis.

### **Unit-3: Business Cycles**

Business cycles: Meaning, phases and features; Theories of business cycles: Hawtrey theory, Over-investment theory, Keynes theory, Samuelson model, Schumpeter model and Hick’s theory; Control of business cycles, relative effectiveness of monetary and fiscal policies. Fiscal policy and crowding out and crowding in. Real Business Cycle (RBC) theory.

### **Unit 4: The Open Economy**

Concept of openness in goods market, factor market, and financial market; Foreign Trade Multiplier, Open Economy- Mundell-Fleming Model, Purchasing Power Parity (PPP), Interest Rate Parity (IRP) and Forex Market Efficiency, Exchange Rate Mechanisms, Interest Rate Differentials and Capital Flows, Dollar Index, Crude prices, Carry Trade and its impact.

### **Teaching Learning Process: Lectures and tutorials**

#### **Suggested Readings:**

1. Mankiw, N. G. (2015), Macroeconomics, 5th Indian Edition, Worth Publishers / Cengage India.
2. Dornbusch, R., S. Fischer, and R. Startz (2018), Macroeconomics, 12th Edition, Tata McGraw-Hill.
3. Blanchard, O. (2017), Macroeconomics, 7th Edition, Pearson India.
4. Romer, D. (2018), Advanced Macroeconomics, 5th Edition, McGraw-Hill India.
5. Froyen, R. T. (2013), Macroeconomics: Theories and Policies, 10th Edition, Pearson India.

## DSC-6: International Economics

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Define basic concepts used in International Economics.</b></li><li>• <b>CO2: Explain theories of international trade.</b></li><li>• <b>CO3: Apply international trade policies in the Indian context.</b></li><li>• <b>CO4: Analyze balance of payments and exchange rate mechanisms.</b></li><li>• <b>CO5: Evaluate the functioning of international financial institutions for trade benefits.</b></li></ul>

### Unit-1 Introduction to International Trade

Meaning and significance of International Economics; Basis of International Trade; Differences between intranational and international trade; Importance of international trade in economic development; Measures of international trade: exports, imports, trade balance, and trade intensity; Globalization and changing patterns of trade; Introduction to gains from trade.

### Unit-2 Theories of International Trade

Classical theories: Absolute advantage (Adam Smith), Comparative advantage (Ricardo), Reciprocal theory (J. S. Mill); Heckscher-Ohlin Theory, Leontief Paradox, Factor price equalization; Product cycle theory, Prebisch-Singer hypothesis, Stolper-Samuelson, Rybczynski Theorem.

### Unit-3 Trade Policy

Free trade vs. protectionism; Arguments for and against free trade; Instruments of trade policy: Tariffs, quotas, subsidies, and non-tariff barriers; Effects of tariffs and quotas on prices, production, consumption, and welfare; Terms of trade: Concepts and measurements; Trade policy in developing vs. developed countries.

### Unit-4 Balance of Payment, International Economic Institutions and Exchange Rate

Balance of payments adjustment mechanism under fixed and flexible exchange rate; Foreign exchange markets; Determination of exchange rates; Exchange rate systems: Fixed, flexible, and managed; IMF and SDR International reserves; Balance of payments adjustments Evolution of international trading system: WTO, BRICS, ASEAN, G7, G20.

### Teaching-Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Salvatore, D. (2019) International Economics, Wiley, New York
2. Krugman, P.R., Obstfeld, M. and Melitz, M.J. (2018) International Economics: Theory and Policy, Pearson Education, New Delhi
3. Carbaugh, R.J. (2019) International Economics, Cengage Learning, Boston
4. Appleyard, D.R. and Field, A.J. (2017) International Economics, McGraw Hill Education, New York
5. Sodersten, B. and Reed, G. (1994) International Economics, Palgrave Macmillan, London
6. Pugel, T.A. (2020) International Economics, McGraw Hill Education, New York
7. Sen, S. (2010) International Trade Theory and Policy: A Review of the Literature, Levy Economics Institute Working Paper No. 635
8. World Trade Organization (Latest) World Trade Report, WTO, Geneva
9. IMF (Latest) Balance of Payments Manual, International Monetary Fund, Washington D.C.

## DSEC-2: PROJECT WORK

Course Title: Project Work

Credits: 5 (Five)

Maximum Marks: 100

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Identify and formulate field-based economic issues and appropriate data collection methods.</li><li>• CO2: Explain the structure and functioning of different sectors of the economy, particularly in the context of India and Uttarakhand.</li><li>• CO3: Apply field survey techniques and observational methods to collect primary data during the field study.</li><li>• CO4: Analyze field data to examine real-world economic problems and sectoral issues.</li><li>• CO5: Evaluate findings and provide practical suggestions or policy recommendations based on project study outcomes.</li></ul>

**Note:** In the Project work student have to undergo a field-based project. The Project will aim at studying the major issues and problems related to different sectors of economy of India and Uttarakhand. The study will largely be based on the collection of primary data and observation. At the end of the Project the student has to submit a Project Report to the department.

## DSE-2 (a): Mathematical Economics-II

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Define economic models, related problems and solution approaches.</li><li>• CO2: Explain partial equilibrium analysis and national income models.</li><li>• CO3: Apply differentiation, integration and differential equations to solve optimization problems.</li><li>• CO4: Analyze open and closed input-output models.</li><li>• CO5: Evaluate computational economics and related solution tools.</li></ul>

### Unit 1 Input Output Analysis

Definition of Input-Output technique, Inter-Industry analysis, Leontief Input-Output Model, Open Input-Output Model.

### Unit 2 Linear Programming

Meaning and concepts of Linear Programming problem (LPP), slack, surplus, artificial variables, formulation of a LPP, general form of a LPP, standard form of a LPP, solution of a LPP: graphical and simplex method, applications of Linear Programming technique.

### Unit 3 Differential Equation

First-Order Differential Equations; Second-Order Differential Equations

### Unit 4 Difference Equation

Solving first order difference equation, Cobb Web Model- Dynamic stability of equilibrium.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press and ELBS, London.
2. Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
3. Gupta, S.C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
4. Handry, A.T. (1999), Operations Research, Prentice Hall of India, New Delhi.
5. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi.
6. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
7. Taha, H.A. (1997), Operations Research: An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd., New Delhi.
8. Yamane, Taro (1975), Mathematics for Economists, Prentice Hall of India, New Delhi.

## DSE-2 (b) Indian Financial System-II

Course Credits	(04) Four
<b>Course Learning outcomes (CLO)</b>	<ul style="list-style-type: none"><li>• CO1: Describe the structure and functions of non-banking financial institutions, regulatory bodies and risk-management institutions in the Indian financial system.</li><li>• CO2: Explain the roles of SEBI, IRDAI, PFRDA and other regulators, along with the principles of financial governance, risk management and fintech innovations.</li><li>• CO3: Apply theoretical knowledge to examine financial regulations, risk-control mechanisms and the functioning of NBFCs and financial markets in India.</li><li>• CO4: Analyse the interrelationship between regulation, risk management and financial stability in India's evolving financial environment.</li><li>• CO5: Evaluate the effectiveness of financial reforms, governance frameworks and fintech developments in strengthening India's financial system.</li></ul>

### **Unit-1 Non-Banking Financial Institutions**

Meaning and importance of NBFCs; Development Financial Institutions; Insurance companies; Pension funds; Mutual funds; Non-Banking Financial Companies (NBFCs); Microfinance Institutions; Asset Reconstruction Companies; Credit Rating Agencies; Operations, regulations, and challenges

### **Unit-2 Financial Regulation and Governance**

Financial sector regulators and their functions: SEBI, IRDAI, PFRDA, NSDL; Financial sector legislation; Corporate governance in financial institutions; Financial market infrastructure; Financial stability and systemic risk; Financial sector reforms and liberalization post 1991.

### **Unit-3 Risk Management in Financial Institutions**

Types of financial risks: Credit risk, market risk, operational risk, liquidity risk; Risk management frameworks; Asset-liability management; Capital adequacy norms; Basel norms and their implementation in India; Stress testing; Financial contagion. India and global financial market -role, impact, merits and demerits of FIIs and FDI; Financial crimes and their prevention.

### **Unit-4 Contemporary Issues in Indian Financial System**

Financial technology (Fintech) and digital finance; Financial inclusion-meaning and significance; Financial Inclusion drives in India from year 2000- strategies and challenges; Sustainable finance and ESG investments; Recent innovations in Indian financial system- SPV and SPE.

### **Teaching Learning Process: Lectures and tutorials**

#### **Suggested Readings:**

1. Bhole, L.M. and Mahakud, J. (2017) Financial Institutions and Markets: Structure, Growth and Innovations, McGraw Hill Education, New Delhi
2. Financial Stability Report (Latest), Reserve Bank of India, Mumbai
3. Ghosh, S. (2019) Indian Banking and Financial System, McGraw Hill Education, New Delhi
4. Khan, M.Y. (2018) Indian Financial System, McGraw Hill Education, New Delhi
5. Machiraju, H.R. (2020) Indian Financial System, Vikas Publishing House, New Delhi
6. Mohan, R. and Ray, P. (2019) Indian Financial Sector: Structure, Trends and Turns, Palgrave Macmillan, Singapore
7. Nayak, S. (2018) Inclusive Finance India Report, Access Development Services, New Delhi
8. Pathak, Bharati V. (2021) The Indian Financial System: Markets, Institutions and Services, Pearson Education, New Delhi

## DSE-2 (c) Sectoral Dynamics of Uttarakhand

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"> <li>• <b>CO1: Describe the genesis, main features and macroeconomic indicators of Uttarakhand's economy.</b></li> <li>• <b>CO2: Explain the development paradigm of Uttarakhand by examining rural-urban and hill-plain disparities and social-sector development.</b></li> <li>• <b>CO3: Apply concepts of sustainable development and sectoral analysis to assess the performance of agriculture, industry and service sectors in Uttarakhand.</b></li> <li>• <b>CO4: Analyse development challenges such as out-migration, poverty, inequality, employment issues and infrastructure and resource-use gaps.</b></li> <li>• <b>CO5: Evaluate the effectiveness of industrial and infrastructure policies, environmental conservation measures, climate adaptation initiatives and green-economy prospects in promoting inclusive and sustainable development in Uttarakhand.</b></li> </ul>

**Unit- 1: Development Paradigm of Uttarakhand:** Genesis of State Formation, Main features of Uttarakhand Economy, Macroeconomic Indicators– GSDP, contribution of agriculture, industry and services in GSDP, per capita income. Economic growth and Sustainable Development. Regional disparities between Rural and Urban regions, regional disparities between hill and plain regions. Out migration, development challenges.

**Unit -2: Social Sector Development:** Demographic features, educational development-primary, secondary and higher education. Health and other basic amenities. Labour force participation and skill development, Gender issues in Uttarakhand; Poverty inequality and employment.

**Unit- 3: Agriculture Industry and Service Sector:** Agriculture- major crops, production and productivity, Organic and Natural Farming, Horticulture Development, Medicinal and Aromatic plants. Industrial development, Industrial Policies, MSMES, handloom, handicraft and micro enterprises.

**Unit-4 Infrastructure and Resources:** Urban development, Infrastructure development: Roads, bridges and Banking institutions. Water resource, Power Sector of Uttarakhand. Forest resource-major and minor forest produce, National Parks, Wildlife sanctuaries, biosphere reserves, green cover, Main rivers, Glaciers, Mineral resources, Tourism, **Hospitality and wellness.** Environment, ecology, climate change and prospects for green economy.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Govt. of India, Planning Commission 2013. Uttarakhand Development Report
2. Directorate of Economics and Statistics, Govt of Uttarakhand, Uttarakhand Statistical Diary, Various Issues
3. Directorate of Economics and Statistics, Govt of Uttarakhand, Uttarakhand At A Glance, Various Issues
4. Directorate of Economics and Statistics, Govt of Uttarakhand, Uttarakhand Annual Budget 2024,2023,2022
5. Economic Survey published by Planning Department, Uttarakhand
6. Sati, M.C: Uttarakhand Statehood: Dimensions of Development, Indus Publication New Delhi
7. Sati, M.C: Diversity and Development of Himalayan Economy
8. Development Dynamics of A Himalayan State : Volume 1 and Volume 2 , R R Nautiyal and Rajlakshmi Datta, Kalpaz Publications, Gyan Books Pvt Ltd, ISBN 978-93-86397-34-8
9. Uttarakhand Year Book: Winsar Publishing Company

## MDE-2: Fundamental and Technical analysis of stocks

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Explain the principles of fundamental and technical analysis of stocks.</b></li><li>• <b>CO2: Explain fundamental analysis, industry classification and company evaluation.</b></li><li>• <b>CO3: Apply financial statement analysis and valuation ratios to assess company performance.</b></li><li>• <b>CO4: Analyze stock price movements using technical analysis, chart patterns and candlestick formations.</b></li><li>• <b>CO5: Develop trading strategies using technical indicators, chart patterns and trend analysis for investment decisions.</b></li></ul>

### Unit-1 Fundamental Analysis: Industry Analysis and stock market

Meaning and importance of fundamental analysis; types of industries: Growth industry, cyclical industry, Defensive industry, Cyclical growth industry; Industry Life Cycle, SWOT Analysis; **Company analysis:** General Analysis- Competitive Edge of the company; Earnings of the Company and the Management;

### Unit-2 Fundamental Analysis: Financial analysis

Understanding stock Balance Sheets, Income statement, Cash flow statement, financial ratios, Debt-equity ratio, profitability ratio, Valuation ratios

### Unit-3 Basics of technical Analysis and Price Action

Types of charts with emphasis on Candle stick; Dow Theory: Phases of market- Accumulation phase, Markup phase, Distribution phase; Support and Resistance; Types of Candlesticks: Single Candlestick- Bullish & Bearish Marubozu, Hammer & Hanging man; Inverted hammer & Shooting star; Dragonfly Doji and Gravestone Doji; Double Candlestick- Bullish and Bearish Engulfing, Bullish and Bearish Harami; Three Candlestick- Morning and evening star

### Unit-4 Indicators and chart patterns for technical analysis

Use of different time frames for Stock technical analysis; Identification and confirmation of Breakout and Breakdown; Use of Trend line, channel lines, Use of SMA, EMA, MACD, RSI, Volume based strategy

Chart patterns: Bullish: Inverted Head and Shoulder, Double bottom, Inverted Pole and Flag, Cup and handle, Bearish: Head and Shoulder, Double top, Inverted Pole and Flag rounding pattern; Others: Ascending and descending triangles breakout / breakdown; Swing trading

**(Students will have to do fundamental and technical analysis of any three large cap industries listed in Nifty 50 index)**

### Suggested Readings

1. Halan, M. (2018). *Let's talk money: You've worked hard for it, now make it work for you.* HarperCollins India.
2. Lamba, A. (2019). *Financial affairs of the common man: Master the art of personal finance management.* Penguin Books.
3. Subramanyam, P. V. (2014). *Retire rich: Invest ₹40 a day.* TV18 Broadcast Ltd.
4. Kumar, A. (2017). *The richest engineer: The story of a young engineer who becomes a millionaire.* Notion Press.
5. Subramanyam, P. V., & Pattabiraman, M. (2016). *You can get rich too: With goal-based investing.* TV18 Broadcast Ltd.

6. Kiyosaki, R. T. (1997). *Rich dad poor dad: What the rich teach their kids about money*
7. Clason, G. S. (1926). *The richest man in Babylon*. Penguin Books.
8. Ramsey, D. (2003). *The total money makeover: A proven plan for financial fitness*. Thomas Nelson.
9. Robin, V., & Dominguez, J. (1992). *Your money or your life: Transforming your relationship with money and achieving financial independence*. Penguin Books.
10. Gala, J., & Gala, A. (2020). *Guide to Indian stock market*. Buzzingstock Publishing House.
11. Kejriwal, A. (2022). *Fundamental analysis for investors*. Vision Books.
12. Graham, B. (2006). *The intelligent investor: The definitive book on value investing*. HarperBusiness Essentials.
13. O'Neil, W. J. (2009). *How to make money in stocks: A winning system in good times and bad* (4th ed.). McGraw-Hill Education.
14. Pring, M. J. (2002). *Technical analysis explained: The successful investor's guide to spotting investment trends and turning points* (4th ed.). McGraw-Hill Education.
15. Wyss, B. O. (2001). *Fundamentals of the stock market*. McGraw-Hill Education.
16. Murphy, J. J. (1999). *Technical analysis of the financial markets: A comprehensive guide to trading methods and applications*. New York Institute of Finance.
17. Students may refer to NSE website for more contents: [www.nseindia.com](http://www.nseindia.com)

## Semester-III

### DSC-7 Indian Public Finance

Course Credits	(05) Five
<b>Course Learning Outcomes (CLO)</b>	<b>CO1: Define and explain the nature, scope and role of public finance in economic development.</b>  • CO2: Explain the structure and features of the Indian tax system, including direct and indirect taxes, GST framework and recent tax reforms.  • CO3: Apply concepts of public expenditure, public debt and budget analysis to interpret trends and evaluate government financial policies and budgets.  • CO4: Analyze fiscal relations between Centre and States in India, including resource distribution, debt issues and institutional mechanisms such as the Finance Commission.  • CO5: Evaluate current challenges in India's public finance system, including taxation issues, fiscal imbalances and policy implications for sustainable economic development.

**Unit 1: Introduction to Public Finance:** Meaning & Definition, Nature, Scope of Public finance, Role of Public Finance in Economic Development.

**Unit 2: Indian Tax System:** Meaning & features of Tax, Major Direct & Indirect Taxes in India, Reforms in Direct and Indirect taxes in India, GST: Concept, Objectives, Evolution of GST in India, Tax Slabs and Rates under GST, Concept and Eligibility of Input Tax Credit; Current Challenges of the Indian Tax System.

**Unit 3: Public Expenditure, Public Debt and Budget Analysis:** Trends in Public Expenditure, Trends & Composition of State & Central Governments' Debt; Deficit Financing; Budget: Meaning, Objectives, Key Components, Preparation & its Execution; Analysis of latest Union Budget of India: Key Highlights and Major Announcements, Revenue and Expenditure Trends, Sectoral Allocation (Education, Health, Infrastructure, etc.), Changes in Taxation Policies, Subsidies & Welfare Programs, Environmental & Sustainable Development Initiatives, Challenges in Implementation; Recent fiscal policy stance of India.

**Unit 4: Fiscal federalism in India:** Centre-State Financial Relations in India; Problems of States' Resources and Indebtedness; Resource Transfer from Union to States: Criteria for Transfer of Resources; Finance Commission: Meaning & its Functions, Importance, Recommendations of latest (16<sup>th</sup>) Finance Commission.

#### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. H L Bhatia (2024), Public Finance, Vikas Publishing House Pvt Ltd, New Delhi.
2. [Dr. J.C. Varshney](#) (2020), Public Finance, SBPD Publishing House, Agra.
3. Ashutosh Raravikar, Fiscal Deficit and Inflation in India, Macmillan India Ltd. New Delhi.
4. Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.

5. Gandhi, V.P. (1970), Some Aspects of India's Tax Structure, Vora and Company, Bombay.
6. Government of India (1992), Reports of the Tax Reforms Committee — Interim and Final (Chairman:Raja J. Chelliah).
7. Joshi P.L. Zero Base Budgeting Technology in Government, Dhruv and Deep Books, Bombay.
8. Mithani D.M. Principles of Public Finance and Fiscal Policy Himalaya Publishing House, New Delhi.
9. Ruddar Datt and K.P.M. Sundharam (2008), Indian Economy, S.C.Chand and Company Ltd, New Delhi
10. Srivastava, D.K. (Ed.) (2000), Fiscal Federalism in India, Har-Anand Publications Ltd., New Delhi

## DSC-8 Dissertation

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• <b>CO1: Identify and formulate research problems, objectives and research questions.</b></li><li>• <b>CO2: Explain the process of literature review, data collection and ethical issues such as plagiarism in research.</b></li><li>• <b>CO3: Apply appropriate research methods and analytical tools to collect, organize and interpret economic data.</b></li><li>• <b>CO4: Analyze research findings to draw meaningful conclusions related to economic issues at local, regional, national or global levels.</b></li><li>• <b>CO5: Evaluate policy implications and provide suggestions or recommendations based on empirical research outcomes.</b></li></ul>

**Note:** Dissertation will be compulsory for all the students of Third semester. The dissertation shall be carried out by the student under the supervision of a faculty advisor. (teacher of department).

### Guidelines for Dissertation:

1. Dissertation should be based on any relevant economic issue at local/regional/state/National/international level
2. It should be developed on the basis of either primary or secondary data.
3. Dissertation should be limited to a range of 40 to 80 pages approx. (Font type-Times New Roman or Font Size-14 font, Line spacing- 1.5 spacing; For Hindi- Kruti Dev-010, Font size-16, Line spacing-1.5)

### Format of Report:

The report should be submitted in following format: Title Page, Certificate (by supervisor and student), Introduction (Background of the Problem), Literature Review, Study Methodology, Research Findings, Conclusion, suggestions or policy prescriptions, Bibliography

**Note:** There should not be any plagiarism in the research report.

## DSC-9 Economics of Growth and Development

Course Credits	(05) Five
<b>Course Learning outcomes (CLO)</b>	<ul style="list-style-type: none"><li>• CO1: Explain the concepts, dimensions, determinants and measures of economic growth and development.</li><li>• CO2: Explain major theories of economic development, including classical, Marxian, Schumpeterian, modern stage and structural theories.</li><li>• CO3: Apply growth models such as Harrod-Domar and neoclassical models to explain the dynamics of economic growth and equilibrium.</li><li>• CO4: Analyze sectoral contributions of agriculture, industry and foreign trade, along with the role of monetary, fiscal and price policies in development.</li><li>• CO5: Evaluate different development strategies, including balanced versus unbalanced growth and labour-intensive versus capital-intensive approaches, in the context of developing economies.</li></ul>

**Unit-1:** Economic Growth and Development: Meaning, Concept and dimensions; Determinants of economic growth; Obstacles in development. Measuring Development: Income Measures, Basic Needs Approach, PQLI, HDI and Capabilities Approach; Goulet's core values of development

**Unit-2:** Theories of Development: Contributions of Adam Smith, Ricardo, Karl Marx and Schumpeter, Rostow's Theory of Stage of Economic Growth, Nurkse's theory

**Unit-3:** Growth Models Harrod and Domar: Instability of equilibrium; Neo Classical Growth Models: Solow and Meade; Growth Models of Joan Robinson, Kaldor and Pasinetti.

**Unit-4:** Sectoral Aspects of development: Role of agriculture, industry and foreign trade in economic development; Role of Monetary, Fiscal and Price policies in economic development. Strategies for development: Balanced versus unbalanced growth and Capital intensive versus Labour-intensive strategies

### Teaching Learning Process: Lectures and tutorials

### Suggested Readings:

1. Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam.
3. Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge,
4. Mass Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols. 1 & 2, Elsevier,
5. Amsterdam. Chenery, H.B. et. al. (Eds.) (1974), Redistribution with Growth, Oxford University Press, Oxford.
6. Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, Oxford.
7. Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
8. Gillis, M., D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition),
9. W.W. Norton, New York. Gimmell, N. (1987), Surveys in Development Economics, Blackwell, Oxford.
10. Higgins, B. (1959), Economic Development, W.W. Norton, New York.
11. Hogendorn, J. (1996), Economic Development, Addison, Wesley, New York.
12. Kahkonon, S. and M. Olson (2000), A New Institutional Approach to Economic Development, Vistaar.

## DSC-10 Demography-I

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Define and describe the scope, sources of data and key measurements of demography.</li><li>• CO2: Explain population growth, structure and composition using demographic indicators such as dependency ratios, population distribution and demographic dividend.</li><li>• CO3: Apply concepts and methods of fertility and mortality analysis, including life tables and transition theories, to interpret population trends.</li><li>• CO4: Analyze migration patterns and population dynamics using theoretical frameworks, including push-pull factors and demographic transition theory.</li><li>• CO5: Evaluate population-related issues such as urbanization, migration and sustainability and their implications for economic and social development.</li></ul>

### Unit-1 Introduction

Concept and scope of demography; Historical development of demographic studies; Relationship with other social sciences; Sources of demographic data: Census, vital registration systems, demographic surveys; Quality and limitations of demographic data; Basic demographic concepts and measurements

### Unit-2 Population Growth and Structure

Measures of population growth and distribution; Components of population change; Population composition: Age and sex structure, population pyramids; Dependency ratios; Demographic dividend; Urbanization and rural-urban migration; Labor force participation and economic activity

### Unit-3 Fertility and Mortality

Concepts and measurements of fertility; Determinants of fertility; Trends in global fertility; Fertility transition theories; Concepts and measurements of mortality; Life tables: Construction and applications; Infant and maternal mortality; Epidemiological transition; Morbidity and health transition

### Unit-4 Migration and Population Theories

Internal and international migration: Concepts, types, and measurements; Theories of migration; Push and pull factors; Consequences of migration; Malthusian theory of population; Theory of demographic transition; Demographic dividend; Population and sustainable development

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Bhende, A.A. and Kanitkar, T. (2018) **Principles of Population Studies**, Himalaya Publishing House, Mumbai
2. Bogue, D.J. (1969) **Principles of Demography**, John Wiley and Sons, New York
3. Haupt, A. and Kane, T.T. (2005) **Population Handbook**, Population Reference Bureau, Washington D.C.
4. Kulkarni, P.M. (2019) **Demographic Techniques and Applications**, Rawat Publications, Jaipur
5. Premi, M.K. (2009) **An Introduction to Demography**, Himalaya Publishing House, Mumbai

6. Preston, S.H., Heuveline, P. and Guillot, M. (2001) **Demography: Measuring and Modeling Population Processes**, Blackwell Publishers, Oxford
7. Siegel, J.S. and Swanson, D.A. (Eds.) (2004) **The Methods and Materials of Demography**, Academic Press, California
8. Srinivasan, K. (1998) **Basic Demographic Techniques and Applications**, Sage Publications, New Delhi

### DSE-3 (a): Agricultural Economics-I

Course Credits	(04) Four.
Course Learning outcomes	<ul style="list-style-type: none"><li>• CO1: Explain the nature, scope and role of agricultural economics in economic development.</li><li>• CO2: Explain key issues in agriculture such as land utilization, land reforms, agricultural labour, credit, irrigation and sustainable farming practices.</li><li>• CO3: Apply economic concepts such as production and cost functions to analyze agricultural growth, technological progress and policy impacts.</li><li>• CO4: Analyze structural and regional aspects of agricultural development, including cropping patterns, Green Revolution outcomes and inter-regional disparities.</li><li>• CO5: Evaluate food security issues, government policies and programmes such as PDS and Food Security Act, along with their implications for sustainable development.</li></ul>

**UNIT-1:** Introduction: Nature and Scope; Role of Agriculture in Economic Development; Agriculture-industry interface. Major issues of Agriculture-Land, Subsidies, investment, irrigation and water management, agriculture credit, risk and insurance, research and extension, diversification and food security, Marketing, Agribusiness, Climate change and other issues. Sustainable agriculture-transformation of traditional agricultural; Organic farming: Present status & Future scope. Contract and Natural Farming.

**UNIT-2:** Land utilization and cropping pattern. Land tenure system, Land Reforms: Measures and performance. Land Holding – Sub division and fragmentation. Agriculture Labour- Problem of small and marginal farmers.

**UNIT-3:** Agricultural cost function and Production function, Agriculture Growth under the Plans: Overall trends and Inter-regional Variations. Green Revolution: Achievements and failures; Agriculture Development and Technological Progress: Mechanization of Indian agriculture, use of modern technology, Indigenous and bio-Technological practices for sustainable agriculture.

**UNIT-4:** Food Security and sustainable Development Goals, Food security in India, per capita food availability and consumption. Food security related problems and solutions, programmes and policies for food security. Food Security Act. Public Distribution system in India; New Agriculture Policy and ICT enabled Initiatives in Agriculture.

#### **Teaching Learning Process: Lectures and tutorials**

#### **Suggested Readings:**

1. Drummond, H E and Goodwin, J W., Agricultural Economics, Standard Book Distributing House, 2004
2. Eicher, Carl and Lawrence Witt, Agriculture in Economic Development, McGraw Hill Book Company, 1964
3. Joshi P C., Land Reforms in India: Trends and Perspective, New Delhi; Allied Publishers, 1975
4. Kahlon, A S and Karam Singh, Managing Agricultural Finance: Theory and Practice, New Delhi: Allied Publishers Pvt. Ltd 1984.
5. Khusro, A.
6. Khusro, A. M., Readings in Agricultural Development, New Delhi: Allied Publishers Pvt. Ltd

7. Mellor W. Hohn, The Economics of Agricultural Development, Mumbai: Vora and Co Publishers Pvt. Ltd.
8. Ruddra Datt, K.P.M. Sundaram, 2008, Indian Economy, S.Chand publication, New Delhi
9. Rudra Ashok, Indian Agricultural Economics: Myths and Realities, New Delhi: Allied Publishers Pvt. Ltd. 1982.
10. Sadhu A.N., Singh [Amarjit], Fundamentals of Agricultural Economics, 2000
11. Shrivastava, O S, Agricultural Economics, 1996
12. Tyagi, B P Agricultural Economics and Rural Development, 1989
13. Krishnaji, N and T.N.Krishan: Public Support for Food Security- The Public Distribution
14. System in India, Sage Publications, New Delhi, 2000.
15. Radhakrishna R (and Others): India's Public Distribution System - A National and
16. International Perspective, World Bank Discussion Paper 380, 1997.

### DSE-3 (b): Environmental Economics

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Explain the interaction between economy and environment and the principles of sustainable development.</li><li>• CO2: Explain ecosystem functioning, natural resource classification and issues of market failure, public goods and externalities in environmental contexts.</li><li>• CO3: Apply theories of environmental valuation and cost-benefit analysis to assess environmental resources and policy decisions.</li><li>• CO4: Analyze environmental problems using concepts such as externalities, missing markets and regulatory frameworks.</li><li>• CO5: Evaluate policy instruments for environmental regulation, including taxes, tradable permits, property rights and the implications of the Coase Theorem.</li></ul>

**Unit 1:** Scope and meaning, Interaction and linkages between Economy and Environment; Kuznets Curve; Central Themes of Environmental Economics; Ecology- Environment and Economy Perspectives; Different Perspectives on Development - Limits to Growth, Current State of Environment; Sustainable Development: Basic Issues, Concepts, Definitions Approaches, Rules and Indicators.

**Unit 2:** Eco-System and Natural Resources. Definition, Functions of Ecosystem, Food-Chains, Food Webs and Ecological Succession, Net Productivity of an Eco-System; Natural Resources and the Economy, Classification of Natural Resources, Economics of Natural Resource Exploitation: Economic Analysis of Non-Renewable Renewable Natural Resources; Market Failures, Public Goods and Externalities

**Unit 3:** Environmental Capital—Theory, Practice and Evaluation. Externality, Market Failures and Missing Markets. Theory of Environmental Valuation, and Introduction to Methods of Valuation. Theory of Regulation and instruments of Regulation. Application of Cost and Benefits Analysis to Environmental Analysis.

**Unit 4:** Regulating the Environment, Market based incentives: Taxes and Tradable Permits Property Rights, Liability Rules Incentives and Market Structure Coase Theorem.

### Teaching Learning Process: Lectures and tutorials

### Suggested Readings:

1. Baumol, William J. and Wallace E. Oates, (1988) the Theory of Environmental Policy, 2nd Edition, Cambridge University Press, (Ch.3,4,5)
2. Bhattacharya, R.N. Edt. (2001), Environmental Economics - an Indian Perspective (Oup).
3. David Pepper, (1996), Modern Environmentalism - an Introduction, Routledge, London.
4. Hanley, Shogren and White (1997), Environmental Economics in Theory and Practice, Macmillan India Ltd. (and OUP
5. Edition).
6. Hussen, Ahmed. M, (2000), Principles of Environmental Economics: Economics, Ecology and Public Policy, Routledge, New York.
7. Kadekodi, Gopal K. (2004) Ed.” Environment Economics in Practice. Oxford University Press, New York.
8. Kolstad, D. Charles. (2004). Environmental Economics. Oxford University Press, New Delhi
9. Maler, K. Goran, (1974), Environmental Economics: A Theoretical inquiry, Resource for Future, Baltimore.
10. Pearce, David. W. (1978) Edt. The Valuation of Social Cost. George Allen and Unwin Ltd. London.
11. Sengupta, Ramprasad (2002): Ecology & Economics: An Approach to Sustainable Development, Oup, India.
12. Solow, in Shankar U. Edt. (2000), Environmental Economics, Oup.

### DSE-3(c): Econometrics

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Define and distinguish econometric models, types of data and variable classifications.</li><li>• CO2: Explain issues related to model specification, including specification bias, measurement errors and the use of dummy and proxy variables.</li><li>• CO3: Apply identification conditions and distinguish between structural, reduced and final forms of econometric models.</li><li>• CO4: Analyze the linear regression model using the OLS method, including its assumptions and estimation procedures.</li><li>• CO5: Evaluate the properties and reliability of OLS estimators, including the concept of BLUE and limitations of econometric models.</li></ul>

1. **Unit-1:** Introduction: Nature and Scope of Econometrics; Economic model versus Econometric model; Conceptual Analysis: Endogenous, Exogenous and Lagged Variables; Single equation versus Simultaneous Equation Models; Cross-section, Time-series and Panel data.
2. **Unit-2:** Specification bias: Meaning, causes, effects; Measurement Errors; Concepts of Dummy and Proxy variables.
3. **Unit-3:** Problem of Identification: Rank and Order conditions. Equations in a model: Structural, Reduced and Final forms.
4. **Unit-4:** Linear regression model: OLS method and its assumptions; Estimation of parameters through OLS in case of maximum two explanatory variables; BLUE properties of OLS estimators.

#### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill Irwin.
2. Gujarati, D. N., & Porter, D. C. (2010). *Essentials of econometrics* (4th ed.). McGraw-Hill/Irwin.
3. Gujarati, D. N. (2021). *Essentials of econometrics* (5th ed.). SAGE Publications.
4. Wooldridge, J. M. (2020). *Introductory econometrics: A modern approach* (7th ed.). Cengage Learning.
5. Stock, J. H., & Watson, M. W. (2020). *Introduction to econometrics* (4th ed.). Pearson.

### DSE-3(d): Labour Economics-I

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Explain labour market structure, characteristics and challenges in the Indian context.</li><li>• CO2: Explain theories of wage determination, wage differentials and wage policies, along with the impact of globalization and technological change on wages.</li><li>• CO3: Apply concepts and measures of employment and unemployment to analyze labour market indicators and policy outcomes in developing economies.</li><li>• CO4: Analyze industrial relations, trade unions, labour welfare and social security systems, including gender and labour rights issues.</li><li>• CO5: Evaluate emerging trends in labour markets such as the gig economy, labour codes and future of work, along with their implications for labour welfare and policy.</li></ul>

#### Unit–1: Introduction

Nature, scope, and importance of Labour Economics; Structure of labour markets: classical and modern perspectives; Indian labour market: trends, features, and challenges; Organised and unorganised sectors; Informalisation of labour and its impact; Labour underutilization and poverty in developing countries; Status of labour in the public and private sectors in India.

#### Unit–2: Wage Determination

Theories of wage determination- Marginal Productivity Theory; Bargaining Theory of Wages; Efficiency Wage Theory (modern perspective); Wage Differentials: Types, causes and Impacts— Gender, Skill, Regional, and Sectoral Disparities; Concepts: Minimum wage, living wage, and fair wage; Wage policy in India: Evolution and recent trends; Bonus, fringe benefits, and compensation systems; Role and Impact of technology and automation in wage determination; Impact of globalization and liberalization on wages

#### Unit–3: Employment, Unemployment, and Development

Employment–development nexus in developing economies; Concepts and types of unemployment; Measurement of employment and unemployment (PLFS, NSSO); Key labour market indicators- Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR), Unemployment Rate (UR) and their interpretation; Impact of globalization, liberalization, and technological change on employment; Automation, Artificial Intelligence, and the future of work; Employment policies in India: Skill India, Make in India, Start-Up India, MGNREGA.

#### Unit–4: Industrial Relations, Trade Unions, and Labour Welfare

Industrial relations: Concept and emerging trends; Trade Unions: Concept, nature, functions, growth, achievements and challenges; Labour welfare and social security: EPFO, ESIC, and pension schemes; Labour rights and gender issues: Women labour participation and challenges, Child labour and labour standards

#### Recommended readings:

1. Datt, G. (1996), *Bargaining Power, Wages and Employment: An Analysis of Agricultural Labour Markets in India*, Sage Publications, New Delhi.
2. Hajela, P.D. (1998), *Labour Restructuring in India: A Critique of the New Economic Policies*, Commonwealth Publishers, New Delhi.
3. Lester, R.A. (1964), *Economics of Labour* (2nd Edition), Macmillan, New York.
4. McConnell, C.R. and Brue, S.L. (1986), *Contemporary Labour Economics*, McGraw-Hill, New York.
5. Papola, T.S., Ghosh, P.P. and Sharma, A.N. (Eds.) (1993), *Labour, Employment and Industrial Relations in India*, B.R. Publishing Corporation, New Delhi.

6. Rosenberg, M.R. (1988), "Labour Markets in Low Income Countries" in Chenery & Srinivasan (Eds.), *Handbook of Development Economics*, North-Holland.
7. Datt, R. and Sundharam, K.P.M. (2008), *Indian Economy*, S. Chand Publications, New Delhi.
8. Jhabvala, R. and Subrahmanya, R.K. (Eds.) (2000), *The Unorganised Sector: Work Security and Social Protection*, Sage Publications, New Delhi.
9. Venkata Ratnam, C.S. (2001), *Globalization and Labour-Management Relations*, Sage Publications, New Delhi.
10. Papola, T.S. (various reports), Institute for Studies in Industrial Development (ISID).
11. Government of India, *Periodic Labour Force Survey (PLFS) Reports* (latest rounds).
12. International Labour Organization (ILO), *World Employment and Social Outlook Reports*.
13. World Bank, *World Development Report* (Jobs / Future of Work editions).
14. Government of India, *Labour Codes*:
15. Code on Wages (2019)
16. Industrial Relations Code (2020)
17. Social Security Code (2020)
18. Occupational Safety, Health and Working Conditions Code (2020)
19. NITI Aayog (2022), *India's Booming Gig and Platform Economy Report*.
20. Autor, D. (2015), "Why Are There Still So Many Jobs?" *Journal of Economic Perspectives*.
21. Acemoglu, D. and Restrepo, P. (2020), *AI and Jobs: Evidence from US Labour Markets*.

### MDE-3: Health Economics

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Explain the role of health in economic development and the determinants of health.</li><li>• CO2: Explain the functioning of healthcare markets, including market failures, health insurance and healthcare financing mechanisms.</li><li>• CO3: Apply economic evaluation techniques such as cost-effectiveness, cost-benefit and cost-utility analysis in healthcare decision-making.</li><li>• CO4: Analyze healthcare systems, resource allocation and policy interventions in addressing health issues and inequalities.</li><li>• CO5: Evaluate health policies and emerging challenges in the healthcare sector, including ageing, pandemics, digital health and reforms in the Indian context.</li></ul>

Unit 1: Introduction to Health Economics: Concept, nature, and scope of health economics; Importance of health in economic development; Demand for health and healthcare; Determinants of health; Health as a consumption and investment good; Health production function; Role of public and private sectors in healthcare; Overview of healthcare systems (public vs private); Health indicators and measurement (life expectancy, IMR, morbidity rates).

Unit 2: Healthcare Markets and Financing: Characteristics of healthcare markets; Market failure in healthcare (externalities, public goods, information asymmetry, moral hazard, adverse selection); Health insurance: types and functions; Risk and uncertainty in healthcare; Healthcare financing mechanisms (taxation, insurance, out-of-pocket expenditure); Role of government in healthcare financing; Universal Health Coverage (UHC).

Unit 3: Economic Evaluation in Healthcare: Concept of efficiency in healthcare; Cost analysis (cost minimization, cost-effectiveness, cost-benefit, cost-utility analysis); Measurement of costs and outcomes; Quality-Adjusted Life Years (QALY) and Disability-Adjusted Life Years (DALY); Resource allocation and priority setting in healthcare; Health technology assessment.

Unit 4: Health Policy and Current Issues: Health policy: objectives and instruments; Public health programs and interventions; Economics of hospitals and healthcare delivery; Regulation of healthcare sector; Issues in Indian healthcare system; Inequality in health and access to healthcare; Emerging issues: ageing population, pandemics, digital health, and healthcare reforms.

#### **Teaching Learning Process: Lectures and tutorials**

#### **Suggested Readings:**

1. Bhattacharya, J., Hyde, T., & Tu, P. (2013). *Health economics*. Palgrave Macmillan.
2. Folland, S., Goodman, A. C., & Stano, M. (2017). *The economics of health and health care* (8th ed.). Routledge.
3. Henderson, J. W. (2018). *Health economics and policy* (7th ed.). Cengage Learning.
4. Santerre, R. E., & Neun, S. P. (2013). *Health economics: Theory, insights, and industry studies* (6th ed.). Cengage Learning.
5. Phelps, C. E. (2018). *Health economics* (6th ed.). Routledge.
6. Getzen, T. E. (2019). *Health economics and financing* (5th ed.). Wiley.
7. Feldstein, P. J. (2012). *Health care economics* (7th ed.). Cengage Learning.
8. Drummond, M. F., Sculpher, M. J., Claxton, K., Stoddart, G. L., & Torrance, G. W. (2015). *Methods for the economic evaluation of health care programmes* (4th ed.). Oxford University Press.
9. Culyer, A. J., & Newhouse, J. P. (Eds.). (2000). *Handbook of health economics* (Vol. 1). Elsevier.

## SEC (Non-CGPA Course): Entrepreneurship & Startup Awareness

Course Credits	(01) One
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Define and describe entrepreneurship, types of entrepreneurs and forms of business organization.</li><li>• CO2: Explain the process of opportunity identification, the startup ecosystem and government initiatives supporting entrepreneurship.</li><li>• CO3: Apply concepts of business planning, including preparation of a Detailed Project Report (DPR) and basic business plans for new ventures.</li><li>• CO4: Analyze sources of finance, marketing strategies and challenges faced by startups in a dynamic business environment.</li><li>• CO5: Evaluate the role of innovation, digital entrepreneurship and startup development in promoting economic growth and employment generation.</li></ul>

### Unit 1: Introduction to Entrepreneurship and Forms of Business

Meaning and concept of entrepreneurship; Characteristics and functions of an entrepreneur; Types of entrepreneurs; Role of entrepreneurship in economic development; Entrepreneur vs manager; Basics of business ideas and opportunity identification; Introduction to startups and startup ecosystem; Forms of business organization: Sole proprietorship, Partnership, Limited Liability Partnership (LLP), Private Limited Company and Public Limited Company – features, merits and demerits, and differences among them; Overview of government initiatives for startups.

### Unit 2: Startup Basics and Business Planning

Concept of startups; Steps in starting a new venture; Idea generation and screening; Concept and importance of Detailed Project Report (DPR); basic components of a DPR; Basics of business plan; Sources of finance (own funds, bank loans, venture capital – basic idea); Marketing basics for startups; Challenges faced by startups; Introduction to digital entrepreneurship and innovation.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2020). *Entrepreneurship* (11th ed.). McGraw-Hill Education.
2. Scarborough, N. M., & Cornwall, J. R. (2019). *Essentials of entrepreneurship and small business management* (9th ed.). Pearson.
3. Barringer, B. R., & Ireland, R. D. (2019). *Entrepreneurship: Successfully launching new ventures* (6th ed.). Pearson.
4. Kuratko, D. F. (2021). *Entrepreneurship: Theory, process, and practice* (11th ed.). Cengage Learning.
5. Drucker, P. F. (2014). *Innovation and entrepreneurship*. Routledge.
6. Khanka, S. S. (2013). *Entrepreneurial development*. S. Chand Publishing.
7. Desai, V. (2019). *Small scale industries and entrepreneurship* (3rd ed.). Himalaya Publishing House.

## Semester IV

### DSC-11 Monetary Economics

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Explain classical and modern theories of demand for money.</li><li>• CO2: Explain the supply of money, including monetary aggregates, money multiplier process and determinants of money supply in India.</li><li>• CO3: Apply monetary theories and frameworks such as Quantity Theory of Money and IS-LM model to analyze macroeconomic relationships between money, output and prices.</li><li>• CO4: Analyze monetary policy, exchange rate regimes, financial crises and international monetary systems in a global context.</li><li>• CO5: Evaluate the role and functioning of monetary institutions such as RBI, NABARD and banking systems, along with policy measures such as demonetization and their economic implications.</li></ul>

#### Unit-1 Demand for Money

Measurement of money: Demand for money: Liquidity Preference of Money, further developments in Liquidity Preference Theory; Tobin's; Baumol Model; Friedman, New Monetarism and its critiques.

#### Unit 2 Supply of Money

Monetary aggregates, H-Theory of Money Supply, Money Multiplier Process and factors affecting H, exogeneity of money supply, money supply in India its component; Determinants and measures; Money multiplier; Financial innovation and its impact on monetary system; Financial intermediation

#### Unit-3 Monetary Macroeconomics

Quantity theory of money; Money and output: Classical, Keynesian, Monetarist, and New Classical perspectives; IS-LM framework; Monetary theories of business cycles; International dimensions of monetary policy; Exchange rate regimes and monetary policy; International monetary system and institutions; Financial crises and monetary policy responses; Current challenges in monetary economics

#### Unit-4 Monetary Institutions

Indian and International Monetary System, RBI – NABARD, NABARD – RRB and Co-operative Banks.

#### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Mishkin, F.S. (2019) **The Economics of Money, Banking, and Financial Markets**, Pearson Education, New York
2. Lewis, M.K. and Mizen, P.D. (2000) **Monetary Economics**, Oxford University Press, Oxford
3. Walsh, C.E. (2017) **Monetary Theory and Policy**, MIT Press, Cambridge
4. Bain, K. and Howells, P. (2016) **Monetary Economics: Policy and its Theoretical Basis**, Palgrave Macmillan, London
5. Goodhart, C.A.E. (1989) **Money, Information and Uncertainty**, Macmillan, London
6. Woodford, M. (2003) **Interest and Prices: Foundations of a Theory of Monetary Policy**, Princeton University Press, Princeton
7. Reserve Bank of India (Latest) **Report on Currency and Finance**, RBI, Mumbai
8. De Grauwe, P. (2020) **Economics of Monetary Union**, Oxford University Press, Oxford
9. IMF (Latest) **Monetary and Financial Statistics Manual**, International Monetary Fund, Washington D.C.

## DSC-12 Indian Economic policies

Course Credits	(05) Five
<b>Course Learning Outcomes (CLO)</b>	<ul style="list-style-type: none"><li>• CO1: Explain the objectives, evolution and institutional framework of economic planning in India.</li><li>• CO2: Compare different development approaches, including Gandhian and Nehruvian models, and explain the New Economic Policy of 1991.</li><li>• CO3: Apply knowledge of economic reforms across agriculture, industry, finance and foreign trade to assess policy changes.</li><li>• CO4: Analyze the role of planning institutions and policy frameworks, including NITI Aayog and development programmes addressing economic issues.</li><li>• CO5: Evaluate the effectiveness of economic policies and programmes in addressing poverty, unemployment, inequality and sustainable development.</li></ul>

**Unit 1: Economic Planning in India:** Meaning, Objectives, History and Importance of Economic Planning; Different Types of Economic Planning; Planning Process in India; Planning Approaches in Different Five-Year Plans, Achievements & Shortcomings of five-Year Plans in India; Role of NDC & Planning Commission; NITI Aayog: Meaning, Objectives, & Establishment, Key Features, Functions, Three Years Action Plan.

**Unit 2: Development of Indian Economic Policies:** Gandhian Approach: Key Features & Influence on Policies; Nehruvian Approach: Key Features & Influence on Policies, Gandhian Approach versus Nehruvian Approach; Economic Policy of 1991: Concept and objectives, Components: Liberalization, Privatization, & Globalization; PURA Model.

**Unit 3: Recent Economic Policies:** Recent Economic policies in Agricultural sector, Industrial Sector, Financial Sector, and Foreign Trade Sector.

**Unit 4: Programs Related to Economic Problems:** Food Security, Poverty, Unemployment, Women Empowerment, Education, Social Security & Health Care, and Environment Sustainability.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
2. Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
3. Bawa, R.S. and P.S. Raikhy (Ed.) (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar
4. Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy : Inter-State Perspectives, Bookwell, Delhi.
5. Chakravarty, S. (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi.
6. Dantwala, M.L. (1996), Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.
7. Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
8. Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.
9. Jain, A.K. (1986), Economic Planning in India, Ashish Publishing House, New Delhi.
10. Jalan, B. (1992), The Indian Economy — Problems and Prospects, Viking, New Delhi.

11. Jalan, B. (1996), *India's Economic Policy — Preparing for the Twenty First Century*, Viking, New Delhi.
12. Joshi, V. and I.M.D. Little (1999), *India : Macro Economics and Political Economy, 1964-1991*, Oxford University Press, New Delhi.
13. Parikh, K.S. (1999), *India Development Report — 1999-2000*, Oxford University Press, New Delhi.
14. Reserve Bank of India, *Report on Currency and Finance, (Annual)*.
15. Sandesara, J.C. (1992), *Industrial Policy and Planning, 1947-1991 : Tendencies, Interpretations and Issues*, Sage Publications, New Delhi.
16. Sen, R.K. and B. Chatterjee (2001), *Indian Economy : Agenda for 21st Century (Essays in honour of Prof. P.R. Brahmananda)*, Deep & Deep Publications, New Delhi.

## DSC-13 India and Global Economy

Course Credits	(05) Five
<b>Course Learning Outcomes (CLO)</b>	<ul style="list-style-type: none"><li>• CO1: Describe India's integration into the global economy, including trade policy, balance of payments and exchange-rate management.</li><li>• CO2: Explain India's role in global trade and production systems, including comparative advantage, global value chains, WTO framework and trade agreements.</li><li>• CO3: Apply concepts of international finance and investment, including capital flows, external debt and macroeconomic linkages, in the global context.</li><li>• CO4: Analyze global economic trends such as globalization, protectionism and digital transformation and their implications for India's economy.</li><li>• CO5: Evaluate India's position and policy responses in global governance and contemporary issues, including SDGs, global institutions and emerging economic challenges.</li></ul>

**Unit 1: India in the Global Economic System:** India's trade policy: pre- and post-1991 reforms; Trends and composition of India's foreign trade; Balance of Payments: structure, trends, and sustainability; Exchange rate regimes and currency management in India; India's current Position in the Global Economy: Emerging economic power, role in global trade, services, and geopolitics.

**Unit 2: India in the Global Trade and Production System:** India's comparative advantage and global trade competitiveness; Composition and direction of India's exports and imports; Global Value Chains (GVCs) and India's participation; Trade facilitation, logistics performance, and ease of doing business; WTO framework: key agreements and India's stance in global trade negotiations; India's trade relations and regional integration (FTAs, RCEP issues); Export promotion strategies and production-linked incentive (PLI) schemes.

**Unit 3: International Finance, Investment, & Macroeconomic Linkages:** Capital flows: FDI, FPI, ECBs and remittances; Role of multinational corporations (MNCs) in India; External debt and financial stability; Global financial crises and their impact on India; Role of institutions: IMF, World Bank, AIIB, NDB.

**Unit 4: Indian Economy amidst Geopolitical Scenario:** Impact of Russia-Ukraine conflict; US - Israel and Iran Conflict; US-India Tariff conflicts and its impacts. US-India Trade Deal; Global Technological advancements-AI and digital transformation, Recent Rupee depreciation against US-Dollar.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Krugman, P. R., Obstfeld, M., & Melitz, M. J. (2018). *International Economics: Theory and Policy*. Pearson.
2. Salvatore, D. (2019). *International Economics*. Wiley.
3. Government of India. (Latest). *Economic Survey*.
4. World Bank. (Latest). *World Development Report*.
5. IMF. (Latest). *World Economic Outlook*.
6. WTO. (Latest). *World Trade Report*.

## DSC-14 Demography-II

Course Credits	(05) Five
<b>Course Learning outcomes (CLO)</b>	<ul style="list-style-type: none"><li>• CO1: Describe contemporary demographic trends, ageing, urbanization and demographic diversity.</li><li>• CO2: Explain the demographic scenario of India, including population growth, fertility and mortality transitions, migration and demographic composition.</li><li>• CO3: Apply knowledge of population policies and programmes in India to assess their objectives, implementation and outcomes.</li><li>• CO4: Analyze the interrelationship between population dynamics and socioeconomic development, including poverty, inequality and labour markets.</li><li>• CO5: Evaluate demographic challenges and policy responses related to sustainability, public health, gender issues and vulnerable populations.</li></ul>

### Unit-1 Contemporary Demographic Issues

Global population trends and challenges; Demographic diversity across regions; Low fertility societies and their challenges; High fertility regions and development issues; Population aging: Causes, patterns, and implications; Changing family structures and living arrangements; Urbanization trends and population distribution; Demographic vulnerabilities and resilience

### Unit-2 Indian Demographic Scenario

Historical trends in India's population growth; Regional diversity in demographic indicators; Fertility transition in India; Mortality patterns and health transition; Migration trends: Rural-urban and inter-state migration; Urbanization in India; Population composition: Age, sex, religion, caste; Demographic dividend in India; Population projections and future trends; Census of India: Methodology and key findings

### Unit-3 Population Policy and Programs in India

Evolution of population policy in India; National Population Policy 2000: Objectives and achievements; State-level population policies; Family planning programs: History and current approaches; Reproductive and child health programs; Population stabilization efforts; Integrated Child Development Services; Population and development programs; Evaluating India's population programs

### Unit-4 Population and Socioeconomic Development

Relationship between population and economic development; Population, poverty, and inequality; Population and environment; Aging and social security; Gender and population; Population and public health; Urbanization and development; Population and labor markets; Migration and development; Special population groups: Tribal populations, urban slum dwellers, and vulnerable communities

### Teaching Learning Process: Lectures and tutorials

### Suggested Readings:

1. Agarwala, S.N. (2016) **India's Population Problems**, Tata McGraw Hill, New Delhi
2. Dyson, T. (2018) **A Population History of India: From the First Modern People to the Present Day**, Oxford University Press, New Delhi
3. National Population Policy (2000), Ministry of Health and Family Welfare, Government of India, New Delhi

4. Registrar General of India (Latest) **Sample Registration System Statistical Report**, Office of the Registrar General & Census Commissioner, New Delhi
5. Rajan, S.I. (Ed.) (2016) **India's Demographic Dividend: Opportunities and Challenges**, Cambridge University Press, New Delhi
6. Census of India (Latest), Office of the Registrar General & Census Commissioner, Ministry of Home Affairs, Government of India, New Delhi

## Optional-Dissertation

Course Credits	(05) Five
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Identify and formulate research problems, objectives and methodology.</li><li>• CO2: Explain the process of literature review, data collection and ethical issues such as plagiarism in research.</li><li>• CO3: Apply appropriate research methods and analytical tools to collect, organize and interpret economic data.</li><li>• CO4: Analyze research findings to draw meaningful conclusions related to economic issues at local, regional, national or global levels.</li><li>• CO5: Evaluate policy implications and provide suggestions or recommendations based on empirical research outcomes.</li></ul>

**Note:** Dissertation will be carried by the student under the supervision of Student advisor (teacher of department).

### Guidelines for Dissertation Report:

1. Dissertation Report should be based on any relevant economic issue at local/regional/state/National/international level
2. It should be developed on the basis of either primary or secondary data.
3. Dissertation should be limited to a range of 40 to 80 pages approx. (Font type-Times New Roman or Font Size-14 font, Line spacing- 1.5 spacing; For Hindi- Kruti Dev-010, Font size-16, Line spacing-1.5)

### Format of Report:

The report should be submitted in following format: Title Page, Certificate (by supervisor and student), Introduction (Background of the Problem), Literature Review, Study Methodology, Research Findings, Conclusion, suggestions or policy prescriptions, Bibliography

**Note:** There should not be any plagiarism in the research report.

### Method of Evaluation:

*Performance of student in dissertation will be evaluated on the following three basis:*

(a) Dissertation Report (By external and internal experts)	60 Marks
(b) Viva-voce (By external expert)	20 Marks
(c) Periodical presentation (by supervisor-internal expert)	<u>20 Marks</u>
Total:	100 Marks

Note: Name of the external expert will be decided by the University.

**DSE-4****(a) Agricultural Economics-II**

<b>Course Credits</b>	<b>(04) Four</b>
Course Learning outcomes	<ul style="list-style-type: none"> <li>• CO1: Explain agricultural finance systems and the role of institutional and non-institutional credit sources in India.</li> <li>• CO2: Explain agricultural marketing systems, price policies, crop insurance and the functioning of regulated markets and related institutions.</li> <li>• CO3: Apply concepts of agribusiness, value chains and supply chains to analyze entrepreneurship and startup opportunities in agriculture.</li> <li>• CO4: Analyze environmental challenges affecting agriculture and policy measures aimed at promoting sustainable agricultural practices.</li> <li>• CO5: Evaluate agricultural trade policies, subsidies and the role of international institutions such as WTO and MNCs in shaping agricultural trade dynamics.</li> </ul>

**UNIT-1:** Agriculture Finance in India: Importance, Institutional and Non-Institutional sources, Existing Credit Delivery System – Structure, problems and remedies. Cooperative Movement in India: Problems and prospects of Cooperative Institutions for agriculture credit.

**UNIT-2:** Agricultural Marketing: Market Structure and Problems, Regulated Markets, Warehousing, New Marketing Channels. Taxation and Crop Insurance; Agricultural Price Policy – Objectives, Instruments and Evaluation. Factors Determining Agricultural Price Policy, Commission for Agricultural Costs and Prices.

**UNIT -3:** Agripreneurs, Startup and agribusiness, value chain and supply chain. Environmental Impact on Agriculture- Factors contributing to adverse impact of environment on agriculture. Policy measures to address environment concern

**UNIT-4:** Agro-Subsidies in India; International Trade of Agricultural Commodities: Factors Influencing Trade in Agriculture and its Implications. Trend of India's Agricultural Trade. India's Trade policy; International Concern in Agricultural Trade, Role of WTO and MNCs in Agriculture.

**Teaching Learning Process: Lectures and tutorials****Suggested Readings:**

1. Drummond, H E and Goodwin, J W., Agricultural Economics, Standard Book Distributing House, 2004
2. Eicher, Carl and Lawrence Witt, Agriculture in Economic Development, McGraw Hill Book Company, 1964
3. Joshi P C., Land Reforms in India: Trends and Perspective, New Delhi; Allied Publishers, 1975
4. Kahlon, A S and Karam Singh, Managing Agricultural Finance: Theory and Practice, New Delhi: Allied Publishers Pvt. Ltd 1984.
5. Khusro, A. M., Readings in Agricultural Development, New Delhi: Allied Publishers Pvt. Ltd.
6. Mellor W. Hohn, The Economics of Agricultural Development, Mumbai: Vora and Co Publishers Pvt. Ltd.
7. Ruddar Datt, K.P.M. Sundharam, 2008, Indian Economy, S.Chand publication, New Delhi
8. Rudra Ashok, Indian Agricultural Economics: Myths and Realities, New Delhi: Allied Publishers Pvt. Ltd. 1982.
9. Sadhu A.N., Singh [Amarjit], Fundamentals of Agricultural Economics, 2000
10. Shrivastava, O S, Agricultural Economics, 1996

## DSE-4

### (b) Financial Econometrics (Swayam Course\*)

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Define and describe financial variables, time value of money and financial econometric models.</li><li>• CO2: Explain linear regression models, simultaneous equation models and the basics of time series analysis in financial contexts.</li><li>• CO3: Apply econometric techniques, including univariate and multivariate time series models, to analyze financial data.</li><li>• CO4: Analyze asset pricing theories and models such as Efficient Market Hypothesis, CAPM and Arbitrage Pricing Theory.</li><li>• CO5: Evaluate financial risk and volatility using models such as ARCH, GARCH, Value-at-Risk and event study methodologies.</li></ul>

### Course Outline

Week 1: Introduction to Financial Econometrics and Financial System.

Week 2: Introduction to Financial Variables, Time Value of Money, and R.

Week 3: Introduction to Linear Regression Model I.

Week 4: Introduction to Linear Regression Model II and Simultaneous Equations Model

Week 5: Introduction to Time Series Analysis

Week 6: Univariate Time Series Modelling

Week 7: Multivariate Time Series Modelling

Week 8: Asset Pricing Model: Efficient Market Hypothesis, Mean- Variance Portfolio Analyses

Week 9: Asset Pricing Models: Capital Asset Pricing Model, Multi- factor Model, Arbitrage Pricing Model (APT)

Week 10: Univariate Volatility Models: Historical, Implied, ARCH, GARCH volatility Models and its extensions

Week 11: Multivariate Volatility Models: GARCH Models and its extensions

Week 12: Event-Study Analysis and Value-at-Risk Models

### Books and References

1. Campbell, J. Y., Lo, A. W. and MacKinlay, A. C. (1996), The Econometrics of Financial Markets
2. Chris Brooks, 2014, Introductory econometrics for finance, Cambridge University Press
3. Christian Gourieroux and Joann Jasiak, 2001, Financial Econometrics: Problems, Models, and Methods, Princeton University Press
4. Walter Enders, 2004, Applied Econometric Time Series, John Wiley and Sons
5. Luenberger, G David 1998, Investment Science, Oxford University press
6. Khan MY, 2018. Indian Financial System, McGrawHill Education

## DSE-4 (c) Gender Economics

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Explain gender roles, division of labour and feminist critiques of mainstream economics.</li><li>• CO2: Explain gender issues in development, including gender indices, feminization of poverty and women's access to resources in India and Uttarakhand.</li><li>• CO3: Apply concepts related to female labour force participation, gender wage gap and labour market dynamics to assess women's economic roles.</li><li>• CO4: Analyze gender disparities in labour markets, unpaid work and socio-economic conditions, particularly in rural and hill economies.</li><li>• CO5: Evaluate gender-focused policies, including gender budgeting, financial inclusion and government programmes for women empowerment and their effectiveness.</li></ul>

### Unit 1: Conceptual Foundations and Gender Profile

Gender vs sex: economic relevance; Gender roles and division of labour; Feminist economics: critique of mainstream economics; Importance, scope and objectives of Gender Economics; Gender sensitization: meaning and importance; Condition and role of women in India and Uttarakhand; Demography of female population – age structure, mortality rates and sex ratio; Trends in fertility and sex ratio in India; Socio-economic status of women; Problems and challenges for rural and urban women (Indian and Uttarakhand economy)

### Unit 2: Gender issues and Development

Gender and economic development; Capability approach (basic idea); Gender Development Index (GDI); Gender Inequality Index (GII); Feminization of poverty; Women's access to education, health, nutrition and economic resources and its impact on development; Women in agriculture (India and Uttarakhand context); migration-induced changes in women's work roles-feminization of labour, limited access to resources and markets, and livelihood vulnerabilities

### Unit 3: Gender and Labour Markets

Female Labour Force Participation (FLFP): meaning, trends and rural–urban differences in India and Uttarakhand; Factors affecting female participation in labour markets; Gender wage gap: concepts, causes, and methods of measurement; Occupational segregation and labour market discrimination; Women's participation in the informal sector and unpaid work; Human capital formation and gender disparities; Women's labour market dynamics in rural and hill economies, with special reference to Uttarakhand; Participation of women in hill regions in unpaid economic work: concept, significance, measurement issues, and its impact on women's economic status and well-being

### Unit 4: Gender, Policy and Public Economics

Gender budgeting: concept and practice; Public policy and gender outcomes; Economic impact of property rights and labour laws; Gender and economic planning in India; Women participation in MGNREGA; Financial inclusion of women; Role of Panchayati Raj institutions in women empowerment; Role of self-help groups and voluntary organizations; Government policies and programmes for women empowerment in India and Uttarakhand; problems in implementation of various government policies for attaining women empowerment.

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Sen, A. (1999). *Development as freedom*. Oxford University Press.
2. Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature*, 50(4), 1051–1079.
3. Kabeer, N. (1994). *Reversed realities: Gender hierarchies in development thought*. Verso.
4. Elson, D. (1995). *Male bias in the development process* (2nd ed.). Manchester University Press.
5. Agarwal, B. (1994). *A field of one's own: Gender and land rights in South Asia*. Cambridge University

- Press.
6. Nelson, J. A. (2006). *Economics for humans*. University of Chicago Press.
  7. Ferber, M. A., & Nelson, J. A. (Eds.). (2003). *Feminist economics today: Beyond economic man*. University of Chicago Press.
  8. Jain, D. (2005). *Women, development, and the UN: A sixty-year quest for equality and justice*. Indiana University Press.
  9. International Labour Organization. (2018). *World employment and social outlook: Trends for women 2018*. ILO.
  10. World Bank. (2012). *World development report 2012: Gender equality and development*. World Bank.
  11. Klasen, S., & Pieters, J. (2015). What explains the stagnation of female labor force participation in India? *The World Bank Economic Review*, 29(3), 449–478.
  12. United Nations Development Programme. (2020). *Human development report 2020*. UNDP.
  13. NITI Aayog. (2021). *National multidimensional poverty index: Baseline report*. Government of India.
  14. Drèze, J., & Sen, A. (2013). *An uncertain glory: India and its contradictions*. Princeton University Press.
  15. Government of India. (2023). *Economic survey 2022–23*. Ministry of Finance.
  16. Ministry of Women and Child Development. (2022). *Annual report 2021–22*. Government of India.
  17. NITI Aayog. (2022). *Women empowerment in India: Policies and progress*. Government of India.
  18. Office of the Registrar General & Census Commissioner, India. (2011). *Census of India 2011*. Government of India.
  19. National Statistical Office. (2023). *Periodic labour force survey (PLFS) annual report*. Government of India.
  20. International Institute for Population Sciences (IIPS) & ICF. (2021). *National family health survey (NFHS-5), 2019–21: India report*.
  21. UN Women. (2020). *Progress of the world's women 2019–2020: Families in a changing world*. UN Women.

## DSE-4 (d) Labour Economics-II

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Explain labour migration, absenteeism and migration patterns in India and Uttarakhand.</li><li>• CO2: Explain causes, impacts and mechanisms of industrial disputes, along with institutional frameworks and conflict-resolution strategies.</li><li>• CO3: Apply concepts of labour welfare and social security to assess schemes and policies for organised, unorganised and gig workers.</li><li>• CO4: Analyze migration dynamics, labour absenteeism and industrial relations in the context of regional disparities and changing labour markets.</li><li>• CO5: Evaluate emerging trends in labour markets, including gig economy, labour codes and social security measures, along with their policy implications.</li></ul>

### Unit-1: Labour Migration and labour absenteeism

Theoretical approaches to labour migration (Lewis, Harris-Todaro, Push-Pull models); Internal and international migration patterns; Economic and social impacts of migration on source and destination regions; Causes and form of migration; Migration in India: A State-wise Analysis of Migration Patterns; Migration in Uttarakhand- reasons, impact on labour supply and regional disparity and government initiatives, feminisation of labour; Absenteeism of Industrial Labour in India: Causes, Impact and Remedies

### Unit-2: Industrial Disputes and Conflict Resolution

Nature and causes of industrial disputes in contemporary labour markets; Mechanisms for prevention and settlement of disputes; Institutional framework under the Industrial Disputes Act, 1947 (with recent developments); Collective bargaining, negotiation strategies, adjudication and arbitration; Role of tripartism and labour administration; Emerging trends in industrial relations and Role of judicial activism

### Unit-3: Labour Welfare and Social Security

Objectives and scope of labour welfare; Features and components of social security, Types and significance of labour welfare activities in India; Social security: concept, features, and components; Major social security schemes in India (EPFO, ESIC, pensions, insurance, and welfare boards); Social security for unorganised and gig workers. Gender and Labour Welfare- Maternity benefits and women-centric policies, Workplace safety and gender-sensitive welfare measures

### Unit-4: Emerging Trends in Labour Markets and Future of Work

Emerging forms of work: Gig economy, platform work, and digital labour markets—importance and challenges faced by labour; Labour Codes in India—need, significance and overview (Code on Wages, Industrial Relations Code, Social Security Code, Occupational Safety, Health and Working Conditions Code); Social Security and Welfare Measures for Unorganized Workers (e-Shram, gig worker policies, etc.)

### Teaching Learning Process: Lectures and tutorials

#### Suggested Readings:

1. Datt, G. (1996), *Bargaining Power, Wages and Employment: An Analysis of Agricultural Labour Markets in India*, Sage Publications, New Delhi.
2. Hajela, P.D. (1998), *Labour Restructuring in India: A Critique of the New Economic Policies*, Commonwealth Publishers, New Delhi.
3. Lester, R.A. (1964), *Economics of Labour* (2nd Edition), Macmillan, New York.

4. McConnell, C.R. and Brue, S.L. (1986), *Contemporary Labour Economics*, McGraw-Hill, New York.
5. Papola, T.S., Ghosh, P.P. and Sharma, A.N. (Eds.) (1993), *Labour, Employment and Industrial Relations in India*, B.R. Publishing Corporation, New Delhi.
6. Rosenberg, M.R. (1988), "Labour Markets in Low Income Countries" in Chenery & Srinivasan (Eds.), *Handbook of Development Economics*, North-Holland.
7. Datt, R. and Sundharam, K.P.M. (2008), *Indian Economy*, S. Chand Publications, New Delhi.
8. Jhabvala, R. and Subrahmanya, R.K. (Eds.) (2000), *The Unorganised Sector: Work Security and Social Protection*, Sage Publications, New Delhi.
9. Venkata Ratnam, C.S. (2001), *Globalization and Labour-Management Relations*, Sage Publications, New Delhi.
10. Papola, T.S. (various reports), Institute for Studies in Industrial Development (ISID).
11. Government of India, *Periodic Labour Force Survey (PLFS) Reports* (latest rounds).
12. International Labour Organization (ILO), *World Employment and Social Outlook Reports*.
13. World Bank, *World Development Report (Jobs / Future of Work editions)*.
14. NITI Aayog (2022), *India's Booming Gig and Platform Economy Report*.
15. Autor, D. (2015), "Why Are There Still So Many Jobs?" *Journal of Economic Perspectives*.
16. Acemoglu, D. and Restrepo, P. (2020), *AI and Jobs: Evidence from US Labour Markets*.
17. Government of India, *Labour Codes*:
18. Code on Wages (2019)
19. Industrial Relations Code (2020)
20. Social Security Code (2020)
21. Occupational Safety, Health and Working Conditions Code (2020)

## MDE-4 Energy Economics

Course Credits	(04) Four
Course Learning outcomes (CLO)	<ul style="list-style-type: none"><li>• CO1: Describe renewable and non-renewable energy sources, green energy markets and economic principles of energy demand and supply.</li><li>• CO2: Explain the rationale and strategies for green growth and inclusive green economy, including global and India-specific climate commitments and policies.</li><li>• CO3: Apply economic tools to analyze green energy investments, pricing models and fiscal and financial incentives promoting renewable energy.</li><li>• CO4: Analyze regulatory frameworks, international mechanisms and institutional roles in facilitating green transition and sustainable development.</li><li>• CO5: Evaluate the role of renewable energy sources, government agencies and policy initiatives in achieving sustainable and inclusive economic growth.</li></ul>

**Unit 1:** Understanding Renewable and Non- Renewable Energy sources. Environment Sustainability and Governance (ESG), supply side and demand side economics of energy, Economic analysis of green energy investments, economics of small-scale decentralized renewable energy systems, green energy pricing, green energy markets, various pricing models.

**Unit 2:** The rationale, strategies and planning for an inclusive green economy; the agenda 2030, 2047 and 2070; inclusive green economies, India's climate agenda and commitments, NAPCC, GHG inventory estimation, NDC and reporting.

**Unit 3:** Fiscal and financial instruments and incentives to promote green energy such as GBI, Feed in Tariff (FiT) and VGF etc. International regulatory mechanisms and frameworks guiding the green transition, Inclusive green economy initiatives around the world. International Development finance for an inclusive green economy, Enabling change agents through capacity development, Domestic regulatory regime for green energy and green building.

**Unit 4:** Renewable energy resources in India (Hydro, wind, solar, Geothermal, bio, nuclear power); Indian Institutes and agencies: National Institute of Solar Energy, National Institute of Wind Energy, Indian Renewable Energy Development Agency, Solar Energy Corporation of India.

### **Teaching Learning Process: Lectures and tutorials**

#### **Suggested Readings:**

1. Environmental Economics and Policy, Lynne Lewis and Tom Tietenberg, Routledge, 2022.
2. Stavins, R. N. (Ed.). Economics of the Environment: Selected Readings, 7th edition, 2019. Cheltenham, UK: Edward Elgar Publishing Ltd.
3. Sterner Thomas and Jessica Coria. Policy Instruments for Environmental and Natural Resource Management. RFF. 2012.
4. Nick Hanley, Jason F Shogren and Ben White. Environmental Economics in Theory and Practice. MacMillan 1997.
5. Kolstad Charles D. Environmental Economics. Oxford University Press. 2011.
6. Baumol William J. and Oates Wallace E. The Theory of Environmental Policy. Second Edition. Cambridge University Press. 1994.
7. Jeroen C.J.M. van den Bergh, Handbook of Environmental and Resource Economics (1999).

8. Maler Karl-Goran and Jeffrey R Vincent. Handbook of Environmental Economics: Environmental Degradation and Institutional Responses. Volume I. North-Holland, 2003.
9. Spash, C. (2017). The Routledge Handbook of Ecological Economics. New York: Routledge.
10. S.C. Bhattacharya (2015): Energy Economics, Oxford University Press.