

Fourth Year- Under Graduate program

B.A. IV (Honours with Research)

For Three Batches (2022-23, 2023-24, 2024-25)

Entry requirement	(After completing requirements of a 3-year bachelor's degree (120 credits) and 2 additional credits under SSD, candidates who meet a minimum CGPA of 7.5 will be allowed to continue studies in the fourth year of the undergraduate programme leading to the four years bachelor's degree (Honours with Research)).			
Course Type	Semester-VII		Semester-VIII	
	Course Code/Course Title	Credits	Course Code/Course Title	Credits
Major Subject	HR/SOS/ECO/CC/711 Advanced Economic Theory-I	5	HR/SOS/ECO/CC/811 Advanced Economic Theory-II	5
	HR/SOS/ECO/CC/712 Quantitative Methods	5		
	HR/SOS/ECO/CC/713 Economics of Human Development	5		
Major Elective (Any 1 out of the 4 electives)	HR/SOS/ECO/EC/714 (a) Financial Literacy, Investment and stock markets HR/SOS/ECO/EC/714 (b) Mathematical Economics-I HR/SOS/ECO/EC/714 (c) Indian Financial System-1 HR/SOS/ECO/EC/714 (d) Regional planning and Development	4	HR/SOS/ECO/EC/812 (a) Fundamental and Technical analysis of stocks HR/SOS/ECO/EC/812 (b) Mathematical Economics-II HR/SOS/ECO/EC/812 (c) Indian Financial System-II HR/SOS/ECO/EC/812 (d) Sectoral Dynamics of Uttarakhand	4
Core Course (Research Based)	HR/SOS/ECO/RC/715 Research Methodology	5	HR/SOS/ECO/RC/813 Research Writing & Ethics	3
			HR/SOS/ECO/RC/814 Dissertation	12
Minor (one)	H/SOS/ECO/MMD/716 (a) Intellectual Property Rights H/SOS/ECO/MMD/716 (b) Uttarakhand Economy	4	H/SOS/ECO/MMD/815 (a) Detailed Project Report for Enterprise H/SOS/ECO/MMD/815 (b) Indian Economy: Policy and Environment (Swayam Course)	4
Total		28		28
NHEQF Level-6	<i>Student on exit after successfully completing four years (i.e., securing minimum required 176 credits along with securing additional 2 credits under SSD course work) will be awarded "Four years Bachelor's Degree (Honours)", in related field/discipline.</i>			

VII Semester

HR/SOS/ECO/CC/711 Advanced Economic Theory-I

Course Credits	(05) Five
Course Objectives	The objective of the course is to help the students to learn the advanced concepts of Economics related to the theories of Demand, Production, Cost, and Decision under Risk and Uncertainty. The course aims to help the learners to understand the concept of Keynesian, Monetarist, New Classical, New Keynesian and Behavioural Economics.
Course Learning outcomes (CLO)	This course will enable students to understand various advanced concepts of Revealed Preference Theory, Cobb-Douglas, CES function and analyze the Macro-economic equilibrium: AS-AD Model. They will gain insights into Rational Expectations, New Keynesian model, price adjustment and coordination failure. Additionally, students will develop an understanding of Behavioural economics, learning how this knowledge contributes to making efficient economic decisions.

Unit-1 Theory of Demand

Revealed preference theory; Hicks revision of Demand Theory; Linear expenditure system; Indirect utility function; Theory of consumer demand: Bandwagon effect – Veblen effect.

Unit-2 Production, Costs and Decision under Risk and Uncertainty

Production functions: Cobb-Douglas and 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; ST. Petersburg paradox; Utility theory and attitude towards risk; Risk aversion and Insurance; Friedman-Savage Hypothesis; Markowitz Hypotheses.

Unit 3: Keynesian and Monetarist Economics

Keynes Theory of Income and Employment, Macro-economic equilibrium: AS-AD model-with variable prices; Monetarist approaches to inflation; Structuralist theory of inflation; Okun's Law, Philips curve analysis – Short run and long run Philips curve; NAIRU; natural rate of unemployment; Tobin's modified Philips curve and policies to control inflation. Supply-side Economics.

Unit 4: New Classical, New Keynesian Economics and Behavioural Economics

Rational expectations: Meaning and policy implications; New Keynesian Models: Mankiw's New Keynesian Model, Price adjustment and coordination failure. 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. 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
10. Mankiw, N. G. (2015), *Macroeconomics*, 5th Indian Edition, Worth Publishers / Cengage India.
11. Dornbusch, R., S. Fischer, and R. Startz (2018), *Macroeconomics*, 12th Edition, Tata McGraw-Hill.
12. Blanchard, O. (2017), *Macroeconomics*, 7th Edition, Pearson India.
13. Romer, D. (2018), *Advanced Macroeconomics*, 5th Edition, McGraw-Hill India.
14. Froyen, R. T. (2013), *Macroeconomics: Theories and Policies*, 10th Edition, Pearson India.

HR/SOS/ECO/CC 712 Quantitative Methods

Course Credits	(05) Five
Course Objectives	The objective of the course is to help the students to learn the basic concepts of Mathematical Economics and apply the quantitative tools and techniques in economic theories. Also to understand and develop skills of analysis using the quantitative methods for minimisation and maximisation etc.
Course Learning outcomes (CLO)	The course will help the student to understand various concepts relating to Mathematical Economics and to apply the quantitative tools and techniques for optimisation purposes. They will be able to apply different quantitative tools for decision making purposes.

Unit-1: Statistical inference: Parametric and Non-Parametric test, Assumption of Normality; Hypothesis-Meaning, types; Formulation and testing of Hypothesis; Type I and Type II errors; Chi-square tests, t-test, Z-test, and F-test.

Unit-2: Role of Mathematics in economic theory and its limitations; Differentiation: meaning and rules of simple differentiation, partial and total differentiation, concept of maxima & minima in single and multivariate functions; rules of indefinite integration and definite integration.

Unit-3: Applications of the differentiation and integration in Economics: Concavity and Convexity; Optimization of Functions; Marginal Concepts; Optimizing Economic Functions; Price Elasticity of Demand and Supply; Relationship among Total, Marginal and Average Concepts.

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. 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.

HR/SOS/ECO/CC/713 Economics of Human Development

Course Credits	(05) Five
Course Objectives	The objective of the course is to help the students to learn the basic concepts relating to Human Development. The economics of education and economics and health which are integral part of Human Development will be put in to perspective to the students for understanding policy making for the social sector in India
Course Learning outcomes (CLO)	The course will help the student to understand various concepts relating to Human Development, economics of education and economics and health which will help them in understanding policy decision for the social sector. They will be able to analyse education and health sector and the investment allocation needed for these sectors for favourable outcome towards human development.

Unit-1: Human Development: Concepts, Millennium Development Goals and human development, Human Development Index, Multidimensional Poverty Index, Gender related Development Indices, Entitlement and capability approach; Sustainable development: Goals and strategies.

Unit-2: Human development in Indian States; Empowered Action Group (EAG); Aspirational districts; Factors responsible for low human development in India, Demographic trends and issues in context of human development; Demographic Dividend.

Unit-3: Impact of Education on Labour Force Participation, Technological Change and Economic Development. Production and Cost Functions of Education. Financing of Education, Public - Private Participation. Theories of Public Expenditure on Education, Models and Methodologies. Linkages between Education, Skills and Jobs; technology advancement and employment levels; Major Government initiatives for Education.

Unit-4: Health and Human Development: Major findings of National Family Health Survey (NFHS-5), 2019-21 (India and Uttarakhand): Rationale and Scope of Health Economics; Trends of Investment in Health; Health outcomes and their relationship with macroeconomic performance; Economics of Nutrition; Major Government initiatives for Health.

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

1. Ananda Krishnan M (2006) Privatization of Higher Education Opportunities and Anomalies, National Seminar on Privatisation and Commercialization of Higher Education, New Delhi May 2.
2. Anil B. Deolalikar, (2005), Attaining Millennium Development Goals in India, Oxford
3. B.G. Tilak, (2007) Women's Education and Development, Gyan Pub, House New Delhi.
4. Berman, P. Health Sector Reform in Developing Countries: Making Health Development Sustainable
5. Bruns Barbara, and Rakotomalala (2005) Achieving Universal Primary Education By 2015, Manas Publication New Delhi
6. Cohn E. and T Gaske (1989) Economics of education, Pergamon press London, Daniel Muijs, (2004), Quantitative Research In Education With SPSS, Sage New Delhi Government of India New Delhi,
7. Report of the National Commission on Macro Economics and Health, 2005 Govind R (2002) India Education Report, Oxford University Press, New Delhi

8. J. Behrman and T. Srinivasan, (1995) Hand Book of Development Economics
Ministry of Education, Government of India, Annual Progress Report Ministry of
Finance,
9. Government of India, Economic Survey, 2007, 2008,2009
10. Ministry of Health, Government of India, Annual Progress Report National Council
of Applied Economic Research, India Human Development Report, Oxford New
Delhi
11. National Council of Applied Economic Research, North India Human Development
Report, Oxford New Delhi
12. Panchmukhi P.R. (1990) 'Private Expenditure on Education in India- an Empirical
Study', Indian Institute of Education, Pune
13. R. Govinda and Rashmi Diwan, (2003), Community Participation and Empowerment
in Primary Education, Saga Publication India Pvt. Ltd, New Delhi.
14. R. Govinda, (2002) India Education Report, Oxford University Press, New Delhi
15. S. Mehrotra, P. R. Panchamukhi and R. Srivastava (2004), Universalizing Elementary
Education, Oxford University press, New Delhi.
16. Schultz T.W. (1961), Investment in Human Capital, American Economic Review, Sen
17. Amartya and Dreze Jean (2003) India Development and Participation, Oxford
18. Solow, Robert M. (1956), A Contribution to the theory of Economic Growth UNDP,
Human Development Reports, various issues
19. World Bank, (2003), India Sustaining Reform Reducing Poverty, Oxford, New Delhi
20. World Bank, World Development Report, various issues

HR/SOS/ECO/EC/714 (a) Financial Literacy, Investment and stock markets

Course Credits	(04) Four
Course Objectives	The objective of the course is to equip learners with the essential skills to make informed financial and investment decisions, ensuring financial security and wealth creation.
Course Learning outcomes (CLO)	The course will help the student to understanding of fundamental financial concepts, investment strategies, and stock market mechanisms. They will gain proficiency in managing personal finances, budgeting, saving, and understanding the impact of financial decisions on life. They will understand the structure and functioning of the stock market, including primary and secondary markets, stock exchanges, mutual funds, and different financial instruments. Furthermore, students will analyse macroeconomic factors affecting the stock market, comprehend the correlation between economic indicators and market movements, and assess the impact of global economic trends on the Indian stock market. This course will equip learners with the essential skills to make informed financial and investment decisions, ensuring financial security and wealth creation.

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 Creating 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.

HR/SOS/ECO/EC/714 (b) Mathematical Economics-I

Course Credits	(04) Four
Course Objectives	This course introduces the learners to basic mathematical concepts, tools and techniques, and also discusses how these techniques are applied to economic analysis.
Course Learning outcomes (CLO)	The students also learn to think about the appropriate mathematical tool to apply to a given economic phenomenon or process or idea. The course discusses sets, relations functions and logic. The students also learn about differential and integral calculus, and single-variable optimization. Finally, the students are exposed to integration.

Unit 1 Basic Concepts

Sets and Set Operations; Relations and Functions; rules of Logarithm; Trigonometric ratios and standard Trigonometric identities; elementary idea of Coordinate Geometry, concepts of elementary Algebra; sigma notations.

Unit 2 Functions and Relations

Meaning and types of function and relation- Multivariate, Logarithmic and Exponential function; elementary idea about growth rates.

Unit 3 Limits and Continuity

Limits-properties and application; Continuity, differentiability of function.

Unit 4 Single-Variable Optimisation

Concave and Convex functions; maximization, minimization and its application.

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.

HR/SOS/ECO/EC/714 (c) Indian Financial System-1

Course Credits	(04) Four
Course Objectives	The aim of the course is to help the students understand the structure, components, and functioning of the Indian financial system with a special emphasis on financial markets, banking institutions, and regulatory frameworks that govern the system.
Course Learning outcomes (CLO)	The course will help students gain comprehensive knowledge about the evolution and current state of the Indian financial system. Learners will understand the role and functions of key financial institutions, markets, and regulatory bodies. Students will develop analytical skills to evaluate financial instruments, banking operations, and monetary policies in the Indian context. This knowledge will enable them to connect theoretical concepts with real-world financial scenarios and prepare them for careers in banking, financial services, and regulatory bodies.

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

HR/SOS/ECO/EC/714 (d) Regional planning and development

Course Credits	(04) Four
Course Objectives	The objective of this course is to provide a comprehensive understanding of regional economics, planning approaches, and development theories while analysing regional disparities and policies. It aims to equip students with the knowledge of sustainable regional planning strategies, governance frameworks, and contemporary development programs, with a special focus on India, including Uttarakhand.
Course Learning outcomes (CLO)	By the end of this course, students will develop a strong foundation in regional economics, planning approaches, and development theories. They will be able to differentiate between regional and national economics, understand various types of regions, and assess factors influencing regional development. Students will gain proficiency in analyzing regional disparities using economic indicators and quantitative methods. They will also explore traditional and modern approaches to regional planning, including participatory and sustainable strategies. Additionally, students will critically evaluate India's regional development policies, governance frameworks, and special initiatives, with a focus on addressing regional imbalances and promoting sustainable growth.

Unit- I: 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 (Gini coefficient, Theil index, etc.)

Unit – II: 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 and Remote Sensing Applications

Unit – III: Regional planning and development theories

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

Unit – IV 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 in context of Uttarakhand; 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.

HR/SOS/ECO/RC/715 Research Methodology

Course Credits	(05) Five
Course Objectives	This course aims at empowering students with knowledge and ability to generate requisite information for decision making through carrying out effective research. Students will learn various tools and techniques necessary to create knowledge and information that will aid in decision making.
Course Learning outcomes (CLO)	This course will help students to understand basics of research i.e., research, research types, approaches, concepts etc. This will also help to learn and carry out effective research using exploratory, descriptive and experimental designs Also to develop an acumen to prepare an appropriate research design for given research.

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

H/SOS/ECO/MMD/716 (a) Intellectual Property Rights

Course Credits	(04) Four
Course Objectives	The course aims to provide a comprehensive understanding of Intellectual Property Rights (IPR), covering their origin, significance, and various forms. It will explore their international frameworks, legal aspects and enforcement mechanisms. Additionally, the course will equip the students with the knowledge to navigate intellectual property challenges in different industries.
Course Learning outcomes (CLO)	Upon completing this course, students will gain a comprehensive understanding of Intellectual Property Rights (IPR), including patents, copyrights, trademarks, and trade secrets. They will be able to analyze international frameworks like TRIPS and WTO, understand patentability criteria, registration procedures, infringement issues, and legal remedies. Additionally, students will develop knowledge of copyright laws, piracy concerns, and trademark regulations, including domain names in cyberspace. The course will equip learners with practical insights into IPR protection and enforcement, preparing them for legal and business challenges related to intellectual property.

Unit-1 Introduction: Meaning of property, Origin, Nature, Meaning of IPR; Introduction to TRIPS and WTO; Kinds of Intellectual property rights—Copy Right, Patent, Trade Mark, Trade Secret and trade dress, Design, Layout Design, Geographical Indication, Plant Varieties and Traditional Knowledge.

Unit-2 Patent Rights: Origin, Meaning of Patent, Types, Inventions which are not patentable, Registration Procedure, Rights and Duties of Patentee, Assignment and licence, Restoration of lapsed Patents, Surrender and Revocation of Patents, Infringement, Remedies & Penalties.

Unit-3 Copy Right: Origin, Definition & Types of Copy Right, Registration procedure, Assignment & licence, Terms of Copy Right, Piracy, Infringement, Remedies, Copy rights with special reference to software.

Unit-4 Trade Marks: Origin, Meaning & Nature of Trade Marks, Types, Registration of Trade Marks, Infringement & Remedies, Offences relating to Trade Marks, Passing Off, Penalties. Domain Names on cyber space

Suggested Readings

1. Bainbridge, D. (2018). Intellectual Property. Pearson Education.
2. Cornish, W., Llewelyn, D., & Aplin, T. (2019). Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights (9th ed.). Sweet & Maxwell.
3. Gopalakrishnan, N. S. (2012). Intellectual Property and Competitive Strategies in the 21st Century. National Law School of India University.
4. Ganguli, P. (2001). Intellectual Property Rights: Unleashing the Knowledge Economy. Tata McGraw Hill.
5. WIPO. (2004). WIPO Intellectual Property Handbook: Policy, Law and Use. World Intellectual Property Organization.
6. Maskus, K. E. (2000). Intellectual Property Rights in the Global Economy. Peterson Institute for International Economics.

7. Dutfield, G., & Suthersanen, U. (2008). Global Intellectual Property Law. Edward Elgar Publishing.
8. Narayanan, P. (2018). Patent Law. Eastern Law House.
9. Bently, L., & Sherman, B. (2014). Intellectual Property Law (4th ed.). Oxford University Press.
10. Basheer, S., & Reddy, P. (2015). Intellectual Property Law in India. Oxford University Press.
11. Moorthy, V. (2017). Cyber Law & Intellectual Property Rights. LexisNexis.
12. Stobbs, G. (2011). Software Patents. Aspen Publishers.4. Law of Intellectual Property, Asian Law House, Dr.S.R. Myneni.

H/SOS/ECO/MMD/716 (b) Uttarakhand Economy

Course Credits	(04) Four
Course Objectives	The course aims to analyze regional disparities, sectoral dynamics, migration patterns, and government initiatives in Uttarakhand, focusing on economic development, sustainability, and policy interventions.
Course Learning outcomes (CLO)	By completing this course, students will understand regional disparities, sectoral developments, and socio-economic challenges in Uttarakhand. They will analyze migration patterns, the impact of hydro projects, natural disasters, and gender issues. Additionally, they will evaluate government initiatives aimed at sustainable development, agriculture, tourism, and industrial growth, fostering a comprehensive understanding of regional planning and policy interventions.

Unit-1 Regional Disparities and Area Deprivation issues

Regional disparities between Rural and Urban regions, regional disparities between hill and plain regions, regional disparities between hill states (Himachal Pradesh and Uttarakhand); impact of regional disparities; Government programs designed mainly for resolving the issues of regional disparities.

Unit-2 Sectoral Analysis of Uttarakhand Economy

Agriculture in Uttarakhand: Role and status of agriculture in rural and urban economy, trends in cropping and farming pattern, sustainable agricultural practices, Issues of farming pattern and input costs, problems of agriculture, role of forest in Uttarakhand economy; Secondary and Tertiary Sector: Industrial development in rural and urban economy, Tourism sector- Role, status and its significance.

Unit-3 Problems of Uttarakhand Hill Areas

Migration- Trends, patterns and factors leading to migration, impact of migration; Hydro projects and its impact on Uttarakhand economy and its sustainability; Natural disasters: causes of natural disaster and its impact; Poverty in Uttarakhand, Health Economics: health issues; Gender Issues and Uttarakhand Economy: Trends of labour force participation in Uttarakhand urban and rural economy, factors affecting female labour force participation.

Unit-4 Government initiatives

Migration Commission, HADP, Policies for agriculture development-Uttarakhand Organic Commodity Board, government initiatives for developing tourism in Uttarakhand, policies for development of industrial sector and self-employment generation; Vibrant Village programme.

Suggested readings:

- Bhattacharya, B. B., & Sakthivel, S. (2004). Regional Growth and Disparity in India: A Comparison of Pre and Post-Reform Decades. *Economic and Political Weekly*, 39(10), 1071-1077.
- Government of India. (2020). *Economic Survey of India*. Ministry of Finance, Government of India.
- Joshi, V., & Pant, M. (2018). *Uttarakhand: Issues of Development and Sustainability*. Gyan Books.
- Mishra, R. P. (2002). *Regional Planning: Concepts, Techniques, Policies and Case Studies*. Concept Publishing Company.

- Planning Commission. (2008). Report of the Working Group on Hill Area Development Programme (HADP) and Western Ghats Development Programme (WGDP). Government of India.
- Ramesh, J. (2007). Making Sense of Chindia: Reflections on China and India. India Research Press.
- Rawat, A. S. (2019). History of Uttarakhand: The Lost Kingdom. Kalpaz Publications.
- Sen, A., & Himanshu. (2004). Poverty and Inequality in India: Widening Disparities during the 1990s. *Economic and Political Weekly*, 39(21), 2125-2133.
- Singh, M. P. (2014). Urbanization in the Himalayas: Emerging Patterns, Issues, and Challenges. Springer.
- Singh, R. L. (1971). India: A Regional Geography. National Geographical Society of India.
- Srivastava, R. (2011). Internal Migration in India: Initiatives for Inclusion. UNESCO Policy Paper.
- Tiwari, P. C. (2008). Sustainable Development of Mountain Environment in India and Climate Change Impacts. Scientific Publishers.

Semester-VIII

HR/SOS/ECO/CC/811 Advanced Economic Theory-II

Course Credits	(05) Five
Course Objectives	The objective of the course is to help the students to learn the advanced concepts of Economics such as price and output determination in market, Welfare Economics and market failures, income consumption theories and Business Cycles. The learners to understand the Neo-Classical synthesis and open economy.
Course Learning outcomes (CLO)	This course will enable students to understand the detailed intricates of equilibrium under different market condition, theories of market, welfare economics and market failures, consumption theories and theories of Business Cycles. Additionally, students will develop an understanding of the interaction of Real and Monetary sectors of the economy macroeconomics policy and stabilization strategies through IS-LM Model, Short run and long run Aggregate Supply curve analysis and open economy Models such as Mundell-Fleming Model, Purchasing Power Parity (PPP), Interest Rate Parity (IRP) and Forex Market Efficiency, learning how this knowledge contributes to making efficient economic decisions.

Unit-1 Price and Output Determination in Markets

Equilibrium under Perfect, Monopoly and Monopolistic competition, Oligopoly: 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-2 Welfare Economics and Market Failures

Pareto optimally criterion and efficiency conditions, Kaldor-Hicks Criterion: Compensation principle, Bergson-Samuelson Social welfare function; Arrows Impossibility Theorem, Amartya Sen's Possibility Theorem; Market failure: Asymmetric information, Moral Hazard; Market signalling.

Unit 3: Income-Consumption Theories and Business Cycles

Relative Income hypothesis; Permanent Income hypothesis; Accelerator: concept and working; Interaction of multiplier and accelerator; Tobin's q theory of investment; Business cycles: Meaning, phases and features; Theories of business cycles: Samuelson model, Schumpeter model, Hick's and Kaldor theory; relative effectiveness of monetary and fiscal policies; Real Business Cycle (RBC) theory.

Unit-4: Neo Classical Synthesis and Open Economy

IS-LM model: The interaction of Real and Monetary sectors of the economy; Fiscal and Monetary Policy analysis in an IS-LM model; Short run and long run Aggregate Supply curve analysis; 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. 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
10. Mankiw, N. G. (2015), Macroeconomics, 5th Indian Edition, Worth Publishers / Cengage India.
11. Dornbusch, R., S. Fischer, and R. Startz (2018), Macroeconomics, 12th Edition, Tata McGraw-Hill.
12. Blanchard, O. (2017), Macroeconomics, 7th Edition, Pearson India.
13. Romer, D. (2018), Advanced Macroeconomics, 5th Edition, McGraw-Hill India.
14. Froyen, R. T. (2013), Macroeconomics: Theories and Policies, 10th Edition, Pearson India.

HR/SOS/ECO/EC/812 (a) Fundamental and Technical analysis of stocks

Course Credits	(04) Four
Course Objectives	The objective of the course is to equip students with the basic knowledge and skills to do fundamental and technical analysis for informed investment and trading decisions in the stock market.
Course Learning outcomes (CLO)	The course will help the students to develop a comprehensive understanding of stock valuation and market trends. They will learn to analyse industries, assess company fundamentals, and interpret financial statements using key ratios. Additionally, students will gain proficiency in technical analysis, including chart patterns, candlestick formations, support and resistance levels, and market phases. The course will also cover indicators like SMA, EMA, MACD, and RSI, enabling students to identify breakouts, trends, and execute informed trading decisions.

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.

Students may refer to NSE website for more contents: www.nseindia.com

HR/SOS/ECO/EC/812 (b) Mathematical Economics-II

Course Credits	(04) Four
Course Objectives	This course introduces the learners to basic mathematical concepts, tools and techniques, and also discusses how these techniques are applied to economic analysis
Course Learning outcomes (CLO)	The students also learn to think about the appropriate mathematical tool to apply to a given economic phenomenon or process or idea. The course discusses functions of several variables, differential equations. The students also learn about linear algebra Finally, the students are exposed to multi variate optimisation.

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.

HR/SOS/ECO/EC/812 (c) Indian Financial System-II

Course Credits	(04) Four
Course Objectives	The objective of the course is to help students develop advanced understanding of financial institutions, risk management, regulatory frameworks, and contemporary issues in the Indian financial system, along with providing insights into international financial linkages and fintech developments
Course Learning outcomes (CLO)	This course will enable students to critically analyze the operations and regulations of various non-banking financial institutions and regulatory bodies in India. They will gain expertise in understanding financial risks, their management techniques, and governance issues. Students will develop the ability to evaluate India's position in the global financial system and assess the impact of financial technology innovations. Additionally, they will learn to apply theoretical knowledge to address real-world financial challenges and policy issues in the Indian context.

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

HR/SOS/ECO/EC/812 (d) Sectoral Dynamics of Uttarakhand

Course Credits	(04) Four
Course Objectives	The objective of the course is to help the students to have a broad understanding of Uttarakhand's economy, socio-economic development its resources, development challenges, and comparative advantages. The course will help students understand local economic development issues
Course Learning outcomes (CLO)	This course will enable students to develop overall understanding of the macroeconomic indicators of the state, the main issues that act as constraints for development, and the key advantages of the Himalayan state. The students will understand the regional disparities in development, gaps in skill, and scope in each sector. The students will have an in-depth understanding of the state's major resources and issues of human development, such as education, income, and health.

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.

Suggested readings:

1. Bhattacharya, B. B., & Sakthivel, S. (2004). Regional Growth and Disparity in India: A Comparison of Pre and Post-Reform Decades. *Economic and Political Weekly*, 39(10), 1071-1077.
2. Government of India. (2020). *Economic Survey of India*. Ministry of Finance, Government of India.
3. Joshi, V., & Pant, M. (2018). *Uttarakhand: Issues of Development and Sustainability*. Gyan Books.
4. Mishra, R. P. (2002). *Regional Planning: Concepts, Techniques, Policies and Case Studies*. Concept Publishing Company.
5. Planning Commission. (2008). *Report of the Working Group on Hill Area Development Programme (HADP) and Western Ghats Development Programme (WGDP)*. Government of India.
6. Ramesh, J. (2007). *Making Sense of Chindia: Reflections on China and India*. India Research Press.
7. Rawat, A. S. (2019). *History of Uttarakhand: The Lost Kingdom*. Kalpaz Publications.

8. Sen, A., & Himanshu. (2004). Poverty and Inequality in India: Widening Disparities during the 1990s. *Economic and Political Weekly*, 39(21), 2125-2133.
9. Singh, M. P. (2014). *Urbanization in the Himalayas: Emerging Patterns, Issues, and Challenges*. Springer.
10. Singh, R. L. (1971). *India: A Regional Geography*. National Geographical Society of India.
11. Srivastava, R. (2011). *Internal Migration in India: Initiatives for Inclusion*. UNESCO Policy Paper.
12. Tiwari, P. C. (2008). *Sustainable Development of Mountain Environment in India and Climate Change Impacts*. Scientific Publishers.

HR/SOS/ECO/RC/813 Research Writing & Ethics

Course Credits	(03) Three
Course Objectives	<ul style="list-style-type: none">• The objective of the course is to help the students to learn the basic and intricate concepts of academic writing and ethics related to research publications.
Course Learning outcomes (CLO)	<ul style="list-style-type: none">• The course will help the student to learn the concepts of academic writing along with understanding how it should strictly adhere with the research ethics. The learner will understand the global practices for fair research publication practices. The course will overall help the student to understand the concepts such as scientific conduct, research ethics, research tools, and the usage of research databases and metrics.

Unit I: Philosophy, Ethics, and Scientific Conduct

Introduction to Philosophy: Definition, nature, scope, and branches. Ethics: Moral philosophy, nature of moral judgments and reactions. Research Ethics: Intellectual honesty, integrity, and responsible conduct in research. Scientific misconduct: Falsification, Fabrication, Plagiarism (FFP), redundant publications, selective reporting, and data misrepresentation.

Unit II: Publication Ethics and Misconduct

Definition, importance, and best practices (COPE, WAME, etc.). Conflicts of interest, authorship, and contributorship. Publication misconduct: Causes, types, and consequences. Identification of unethical practices, complaints, and appeals. Predatory journals and publishers.

Unit III: Open Access Publishing and Research Tools

Open access initiatives and policies (SHERPA/RoMEO, UGC-CARE list). Journal selection tools (JANE, Elsevier Journal Finder, Springer Journal Suggester). Use of reference management tools (Mendeley, Zotero). Anti-plagiarism software (Turnitin, Urkund).

Unit IV: Research Databases and Metrics

Indexing and citation databases (Web of Science, Scopus). Journal impact assessment: Impact Factor, SNIP, SJR, IPP, CiteScore. Researcher metrics: h-index, g-index, i-10 index, altmetrics.

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

1. Resnik, D. B. (2020), *The Ethics of Science: An Introduction*, 2nd Edition, Routledge.

2. **Shamoo, A. E. and D. B. Resnik (2015)**, *Responsible Conduct of Research*, 3rd Edition, Oxford University Press.
3. **Kothari, C. R. and G. Garg (2019)**, *Research Methodology: Methods and Techniques*, 4th Edition, New Age International Publishers.
4. **Bryman, A. (2021)**, *Social Research Methods*, 6th Edition, Oxford University Press.
5. **Chakraborty, P. (2021)**, *Publication Ethics and Research Integrity*, 1st Edition, Springer.
6. **COPE (Committee on Publication Ethics) (2022)**, *COPE Guidelines on Publication Ethics*, Available Online: www.publicationethics.org

HR/SOS/ECO/RC/814 Dissertation

Course Credits	(12) Twelve
Course Objectives	The objective of the dissertation course is to enable students to conduct independent research on relevant economic issues, apply appropriate research methodologies using primary or secondary data, analyze findings critically, and develop academic writing skills while maintaining research integrity.
Course Learning outcomes (CLO)	Upon successful completion of the dissertation, students will be able to conduct independent research on relevant economic issues at local, regional, national, or international levels. They will develop critical thinking, data analysis, and academic writing skills by utilizing primary or secondary data. The dissertation process will enhance their ability to identify research gaps, apply appropriate methodologies, interpret findings, and propose policy recommendations. Additionally, students will gain experience in maintaining academic integrity through proper citation and plagiarism checks, preparing them for advanced research or professional roles.

Note: The dissertation will be compulsory for all students in the third semester. It will be carried out by the student under the supervision of a faculty advisor (a teacher from the department).

Guidelines for Dissertation:

1. Dissertation topic 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 or the combination of the both.
3. Dissertation should be limited to a range of 100 to 150 pages approx. (Font type-Times New Roman or Font Size-12 font, Line spacing- 1.5 spacing; For Hindi- Kruti Dev-11, 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, Relevance of the study, Research gaps identified, Research Methodology, Research Findings, Conclusion, suggestions or policy prescriptions, References

Note: The student will have to submit a plagiarism report along with the final report.

Method of Evaluation:

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

- (a) **Dissertation (By external expert)- 60 Marks**
- (b) **Viva-voce (By external expert and Internal expert)- 20 Marks**
- (c) **Periodical presentation (by supervisor-internal expert)- 20 Marks**

Total: 100 Marks

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

H/SOS/ECO/MMD/815 (a) Detailed Project Report for Enterprise

Course Credits	(04) Four
Course Objectives	The objective of this course is to equip students with the knowledge and skills required to develop a Detailed Project Report (DPR) by understanding business planning processes, market analysis, technological and operational considerations, financial assessments, and legal/ethical aspects essential for evaluating and implementing a successful enterprise.
Course Learning outcomes (CLO)	By completing this course, students will gain the ability to develop a Detailed Project Report (DPR), conduct market research, analyze product planning and marketing strategies, assess technological and operational aspects, and evaluate financial feasibility using tools like NPV and IRR. They will also understand the socio-economic and legal/ethical considerations involved in starting and managing an enterprise.

Unit1 Introduction: Meaning, objectives and significance of DPR, Business planning process for creating a new plan, Steps in writing a DPR.

Unit 2 Market Planning: Market research, Product –Categories of Products/Services; Product Planning and Policies; Branding and Packaging; Product life cycle; Product Positioning. marketing mix, Successful Marketing Plan.

Unit 3- Equipment and Process Technology: overview, choice of Technology and Appraisal; Location of the Project, Layout of the Project, Material Balance of the Project. Environment Impact, Assessment of Operations-capacity planning, plant organisation, personnel, operations planning vendor management, quality strategy, operations costing, management information system, safety; Commercial Aspects.

Unit 4 Financial Aspects: Profit & Loss statement, Balance Sheet, Cash Flows statement, Cost Analysis, NPV, IRR, Socio-economic Aspects, Legal/Ethical issues to consider when starting an enterprise, Evaluation of DPR.

Suggested Readings:

1. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2020). Entrepreneurship. McGraw-Hill Education.
2. Kotler, P., & Keller, K. L. (2019). Marketing management (15th ed.). Pearson.
3. Osterwalder, A., & Pigneur, Y. (2010). Business model generation: A handbook for visionaries, game changers, and challengers. Wiley.
4. Gopinath, C. (2021). Strategic business planning for accountants: Methods, tools, and case studies. Routledge.
5. Koller, T., Goedhart, M., & Wessels, D. (2020). Valuation: Measuring and managing the value of companies (7th ed.). McKinsey & Company, Inc., & Wiley.
6. Iyer, P. (2019). Project management and business planning. Himalaya Publishing House.
7. Meredith, J. R., Shafer, S. M., & Mantel, S. J. (2020). Project management: A strategic managerial approach (11th ed.). Wiley.
8. Pandey, I. M. (2021). Financial management (12th ed.). Vikas Publishing House.
9. Kalyani, D. (2018). Detailed project report (DPR) preparation: A step-by-step approach. Global Vision Publishing.
10. Lock, D. (2020). Project management (10th ed.). Routledge.
11. Porter, M. E. (1998). Competitive strategy: Techniques for analyzing industries and competitors. Free Press.
12. Schaper, M. (2016). Entrepreneurship and small business (4th ed.). Wiley.

H/SOS/ECO/MMD/815 (b) Indian Economy: Policy and Environment (Swayam Course)

Swayam Course: **Indian Economy: Policy and Environment**

[Indian Economy: Policy and Environment - Course](#)

https://onlinecourses.swayam2.ac.in/nou25_hs32/preview