

U.G. Course structure (for 3+1=4 years)

Department of Economics
School of Humanities and Social Sciences
H.N.B. Garhwal University, Srinagar Garhwal

Semester	Course category	Course title	Credits	Total Credits
Semester-I	Core	Principles of Micro Economics-I	6	6
	Additional Course	Managerial Economics-I	4	4
	Skill course	Entrepreneurship and Start-up-I	2	2
		Data Analysis-I	2	
			Total	12
Semester-II	Core	Principles of Micro Economics-II	6	6
	Additional Course	Managerial Economics-II	4	4
	Skill course	Entrepreneurship and Start-up-II	2	2
		Data Analysis-II	2	
			Total	12
Semester-III	Core	Principles of Macro Economics-I	6	6
	Additional Course	Managerial Economics-I	4	4
	Skill course	Entrepreneurship and Start-up-I	2	2
		Data Analysis-I	2	
			Total	12
Semester-IV	Core	Principles of Macro Economics-II	6	6
	Additional Course	Managerial Economics-II	4	4
	Skill course	Entrepreneurship and Start-up-II	2	2
		Data Analysis-II	2	

Semester-I

Core Course: Principles of Micro Economics-I

Course Credits	(06) Six
Course Objective:	The course objective is to make a student learn basic principles of Micro Economics which will help him/her to utilise them for understanding the economic behaviour of individual agents (Consumers and Producers) and firms. The course will help the learners to apply the economic concepts for a better understanding of the micro economy.
Course Learning outcomes	<p style="text-align: center;">The Course will help the learner to:</p> <ul style="list-style-type: none">• Learn the basic concepts of Economics along with the fundamentals and framework of Micro Economics• Analysis of the functioning of the micro economy• To understand the individual consumer, producer, firm economic behaviour along with their equilibrium conditions• To learn the status of cost and revenue of firm in the short and long run• To understand the firm's behaviour under perfect market competition• To understand the concept and conditions of allocative efficiency under perfectly competitive markets

1. Introduction

a. Problem of scarcity and choice: scarcity, choice and opportunity cost; Micro and Macro Economics: Concept, scope, and nature; Static and Dynamic Economics; Production Possibility Frontier.

b. Demand and supply: law of demand and its exceptions, determinants of demand, shifts of demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shifts of supply versus movements along a supply curve, market supply, market equilibrium; Consumer Surplus and Producer Surplus.

c. Elasticity: price elasticity of demand, calculating elasticity, determinants of price elasticity; Income and Cross Elasticity.

2. Consumer Theory

Concept of utility, Diamond-water paradox, Law of Diminishing Marginal Utility and equi-marginal utility; Indifference Curve: Consumer Equilibrium, Price Effect; Derivation of the demand curve from indifference curve.

3. Production, Costs and Revenue analysis

a. Production: Concept and factors of production; Production function; Law of variable proportions; Return to scale; Producer equilibrium.

b. Costs: costs in the short run and long run, revenue and profit maximizations, minimizing losses, short run industry supply curve, economies and diseconomies of scale, long run adjustments.

4. Perfect Competition

a. Assumptions: theory of a firm under perfect competition, demand and revenue; Equilibrium of the firm in the short run and long run; Long run industry supply curve: increasing, decreasing and constant cost industries.

b. Welfare: allocative efficiency under perfect competition.

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
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Semester-I or III

Additional Course: Managerial Economics-I

Course Credits	(04) Four
Course Objective:	This course will help the students to learn different concepts, theories and tools in economics and their application to business decision/research problem
Course Learning outcomes	<ul style="list-style-type: none">• Students will be able to explain the basics concepts of Managerial Economics along with its importance in decision making• Through the lens of economics, students will learn to think systematically and strategically about critical management issues concerning consumer demand, supply, Cost, consumer and producers' equilibrium.

Unit-1 Basics of Managerial Economics

Nature, Scope and significance of managerial economics; Managerial economics and Economics (Micro & Macro); Characteristics of managerial economics; Fundamental economic concepts - opportunity cost, discounting principle, time perspective, incremental concept, equimarginal concept; Application of economics in managerial decision making; Role and responsibilities of managerial economist in business.

Unit-2 Demand and Supply Analysis

Utility Analysis; Demand: Concept, Law- along with its exceptions and its determinants; Indifference Curve analysis; Consumer equilibrium; Income and substitution effect; Consumer surplus; Elasticity of Demand: Concept, types and measurement methods, importance in decision making; Demand Forecasting: Types, Process and methods, demand forecasting for new products.

Unit-3 Production and Cost and Revenue Analysis

Supply: Concept, Law, Determinants and elasticity; Equilibrium: static, unstable and neutral; Production function and its managerial use, Law of variable proportion and returns to scale; Different types of cost, cost curves under short and long run, the relationship between average and marginal cost, long run cost curves; Modern development in cost theory: L-Shaped long run average cost curves and learning curve; Isoquants and least cost combinations of factors; Expansion path.

Revenue Curves: Concept of average, marginal and total revenue under different market conditions, the relation between average and marginal revenue.

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

- Maurice, Charles, S., Thomas, Christopher, R and Smithson, Charles, W. 1992. *Managerial Economics- Applied microeconomics for decision making*. Irwin.
- Mote, V.L., Paul, Samuel and Gupta, G.S. 1987. *Managerial Economics-concepts and cases*. Tata McGraw Hill.
- Peterson, Craig, H. and Lewis, Cris, W.2012. *Managerial Economics*. Pearson Education Asia.
- Dholakia, Ravindra, H. and Oza, Ajay, N. 1996. *Microeconomics for Management Students*. Oxford University Press
- Koutsoyiannis, A. (1990) *Modern Microeconomics*, Macmillan Press Ltd., London
- Layard, P.R.G. and A. W. Walters (1978) *Microeconomic Theory*, McGraw Hill, New York
- Lipsey, R.G. and K.A. Chrystal (2004) *Principles of Economics*, (9th Edition), Oxford University Press, New Delhi
- Perloff, Jeffrey M. (2001) *Micro Economics*, Addison Wesley Longman Pvt. Ltd., New Delhi
- Sen, A. (1999) *Microeconomics Theory and Applications*, Oxford University Press, New Delhi
- Stigler, G. (1996) *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi
- Varian, H. (2000) *Microeconomic Analysis*, W. W. Norton, New York

Semester-I or III

Skill Course: Entrepreneurship and Start-up-I

Course Credits	(02) Two
Course Objective:	This course introduces students to the basic knowledge of starting new ventures. It will impart skills for the formulation and planning of projects. It will also provide them knowledge of institutions, helpful for the development of small businesses.
Course Learning outcomes	<p>The course will help the learners/potential entrepreneurs to:</p> <ul style="list-style-type: none">• understand the important requisite characteristics of an entrepreneur and attaining knowledge of different sectors that have immense scope of entrepreneurship development in the state and country• learn about the various government programs and schemes which promote and develop skills and entrepreneurship• help budding entrepreneurs to learn the process of starting an enterprise• get the knowledge of different types of businesses and to learn the legal details under them• help the learner to learn the process of developing/preparing a business plan along with learning various marketing management and developing strategies

Unit-1 Entrepreneurship

Entrepreneurship: Meaning and role in society; Characteristics of an entrepreneur, Entrepreneur skills; Forms of entrepreneurship- Private; public and joint entrepreneurship; Scope for entrepreneurship in Uttarakhand and India; Institutions of skill development, policies, programs and schemes of skill and entrepreneurship development in India

Unit 2: Entrepreneurship process

Idea identification and Need Gap assessment: Identification of business opportunity (idea, opportunity and innovation), how to identify business ideas and conducting need assessment study; methods for idea, generation, assessment and screening; Feasibility analysis of the idea (Market, financial, technical, socio-economic feasibility analysis) and feasibility report preparation)

Unit-3 Type of business

Nature and type of business: sole proprietorship, private limited, public limited, partnership, limited liability partnership; Legal details under different types of business: registration, legal status, liabilities, taxation etc

Unit-4 Preparation of business plan-I

Business plan: meaning and objectives, contents of a business plan, Marketing Plan: Marketing mix, market segmentation, identification of target market and developing strategies for target market, product positioning

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

Donald F Kuratko, "Entrepreneurship – Theory, Process and Practice", 9th Edition, Cengage Learning, 2014.

Khanka. S.S., "Entrepreneurial Development" S. Chand & Co. Ltd., Ram Nagar, New Delhi, 2013.

EDII "Faulty and External Experts – A Hand Book for New Entrepreneurs Publishers: Entrepreneurship Development", Institute of India, Ahmadabad, 1986.

Hisrich R D, Peters M P, "Entrepreneurship" 8th Edition, Tata McGraw-Hill, 2013.

Mathew J Manimala, "Entrepreneurship theory at crossroads: paradigms and praxis" 2nd Edition Dream tech, 2005.

Rajeev Roy, "Entrepreneurship" 2 Edition, Oxford University Press, 2011.

Vasant Desai, "The Dynamics of Entrepreneurship Development and Management", Himalaya Publication house, 2022

David H. Holt, "Entrepreneurship, New Venture Creation", Prentice Hall India, 1991.

S.S. Khanka, "Entrepreneurial Development", S. Chand & Company Ltd. New Delhi, 2007

Vasant Desai, "Small-Scale Industries and Entrepreneurship", Himalaya Publishing House, Delhi, 2003

Semester-I or III

Skill Course: Survey Methods and Data Analysis-I

Course Credits	(02) Two
Course Objective:	The main objective of the course is to help the student to learn about the sample surveys which will help them in increasing their employability
Course Learning outcomes	<p>The course will help the learner to</p> <ul style="list-style-type: none">• learn about the process of survey research along with its various types• understand the methods of collecting primary data and various sources of secondary data along with getting use to the various random and non-random sampling techniques• learn to design and prepare questionnaire for surveys along with process of testing it• learn various methods of conducting qualitative research along with dealing with issues with sample surveys such as non-response from the respondents• learn various methods and process of conducting participatory research• understand various types of measurements scales which will help them to input appropriate data into them for measurements• learn various scaling techniques which will help them in the process of conducting survey research

Unit-1 Data Collection and Sampling methods

Survey Research: Steps involved in conducting survey research; Types of survey research; Data collection Methods and sources of data: primary and secondary data; Census and sampling-based surveys; Sampling Methods: Random and Non-Random sampling methods.

Unit-2 Survey tools and techniques

Questionnaires and Schedules: Meaning and merits; Types of questions: Structured and unstructured; Questionnaire design and testing; preparing questionnaire for online surveys; pilot study Qualitative research methods: Direct: Observation, Focus group, Delphi method, Depth interviews, Content analysis; Indirect: Projective techniques, Sociometry.

Non-response in sample surveys

Unit-3 Participatory research

Participatory Action research; Participatory Evaluation; Participatory Rural Appraisal (PRA): Meaning, Social Map, resource map, Transect walk, timeline

Unit-4 Attitude measurement and Scaling techniques

Measurement scales; Scaling techniques: Comparative and Non-comparative Scales

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Fowler, J., Floyd J. (1995). *Improving survey questions: Design and evaluation*. (Vol. 38). Thousand Oaks, CA: Sage Publications.

Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: John Wiley and Sons.

Tourangeau, R. (1999). *Interdisciplinary survey methods research*. In M. G. Sirken, D. J. Herrmann, S. Schechter, N. Schwarz, J. M. Tanur, & R. Tourangeau (Eds.), *Cognition and Survey Research*. New York: John Wiley and Sons.

Williams, D.G. and Johnson, N.A. (1996). *Essentials in Qualitative Research: A Notebook for the Field*. Hamilton, Canada: Mc Master University.

Yin, R.K. (1984). *Case Study Research: Design and Methods*. Beverly Hills, CA, USA.: Sage Publications.

Moser, C. A. and G. Kalton 1973. *Survey Methods in Social Investigation*. The English Language Book Society: London

de Vaus, D.A. 1986. *Surveys in Social Research*. George Allen and Unwin: London

Young, P. V. 1988. *Scientific Social Surveys and Research*. New Delhi: Prentice Hall.

Semester-II

Core Course: Principles of Micro Economics-II

Course Credits	(06) Six
Course Objective:	The main objective of the course which is the extension of the Micro Economics course in first semester is to enhance the knowledge of the learner about Micro Economics which will help them to understand the pricing and output decisions under the various market structure. The course will help to understand the market behaviour and response under different conditions along with covering the pricing of factors of production. The course will also help in understanding the basics of International Trade.
Course Learning outcomes	The student will be able to: <ul style="list-style-type: none">• Understand the pricing and output determination under different forms of imperfect market competition• Understand how perfectly competitive markets ensure economic efficiency• Understand market failures and their causes• Understand the information problems and how it affects the behaviour of consumers and firms• Understand the pricing theories of different factors of production• Understand the basic theories of International Trade along with factors that impact international trade.

1. Imperfect Competition: Concept and forms of imperfect competition

a. Monopoly

Short run and long run price and output determination of a monopoly firm; concept of a supply curve under monopoly; comparison of perfect competition and monopoly, social cost of monopoly, price discrimination; remedies for monopoly: Antitrust laws, natural monopoly.

b. Monopolistic and Oligopoly

Monopolistic competition: assumptions, short run & long run price and output determination under monopolistic competition, economic efficiency and resource allocation; oligopoly: assumptions, oligopoly models- Kinked Demand Curve, price Leadership and Cartels, game theory, contestable markets, role of government.

2. Consumer and Producer Theory

a. Consumer and Producer Theory in Action: Externalities, marginal cost pricing, internalising externalities, imperfect information: adverse selection, moral hazard, social choice, government inefficiency.

b. Markets and Market Failure: Market adjustment to changes in demand, efficiency of perfect competition; sources of market failure: imperfect markets, public goods, externalities, imperfect information; evaluating the market mechanism.

3. Factor pricing

Ricardian theory of Rent: Scarcity and Differential Rent; Wages: Marshal-Hicks Wage determination theory; Keynes Liquidity preference theory; Profits- Schumpeter and Knights theory.

4. International Trade

Absolute advantage, comparative advantage, terms of trade, sources of comparative advantage, trade barriers, free trade/ protectionism.

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
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Semester-II

Additional Course: Managerial Economics-II

Course Credits	(04) Four
Course Objective:	The main objective of the course is to make learner both micro and macro-economic aspects along with their applications to understand the economic behaviour in the real world.
Course Learning outcomes	The course will help the learner to: <ul style="list-style-type: none">• Understand the price determination under different perfect and different forms of imperfect market competition.• Understand the pricing approaches along with factors that affects decisions related to pricing of the product• Understand the concepts of National Income and business cycles.• Understand the role and tools of monetary and fiscal policies to control business cycles• Learn the Macro Economic key features of the Indian Economy which includes LPG, PPP, foreign trade (with respect to WTO) and the existing Indian tax system

Unit-1 Market structure and Pricing Practices:

Market structure: Perfect Competition, Features, Determination of price under perfect competition; Monopoly: Features, Pricing under monopoly, Price Discrimination; Monopolistic Competition: Features, Pricing under monopolistic competition, Product differentiation; Oligopoly: Features, Kinked demand Curve, Cartels, Price leadership.

Pricing: Factor affecting pricing decision; Components in Pricing of the product; Descriptive Pricing Approaches: Full cost pricing, Product line pricing, Pricing Strategies: Price Skimming, Penetration Pricing, Loss leader pricing, Peak Load pricing.

Unit-2 National Income and Business Cycles

Primary, secondary and tertiary sectors and their contribution to the economy; National Income: Concepts, Determination; Multiplier and accelerator concepts; Business Cycles: Phases and Management of Cyclical Fluctuations: Fiscal and Monetary Policies.

Unit-3 Macro Economic Environment

Economic Transition in India: Liberalization, Privatization and Globalization; Business and Government: Public-Private Participation (PPP), Industrial Finance, Foreign Direct Investment (FDIs & FIIs); Trends in India's Foreign Trade, Impact of WTO on India's Foreign Trade, Role of MNCs in India; Present Indian Tax System.

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

- Maurice, Charles, S., Thomas, Christopher, R and Smithson, Charles, W. 1992. *Managerial Economics- Applied microeconomics for decision making*. Irwin.
- Mote, V.L., Paul, Samuel and Gupta, G.S. 1987. *Managerial Economics-concepts and cases*. Tata McGraw Hill.
- Peterson, Craig, H. and Lewis, Cris, W.2012. *Managerial Economics*. Pearson Education Asia.
- Dholakia, Ravindra, H. and Oza, Ajay, N. 1996. *Microeconomics for management Students*. Oxford University Press
- Koutsoyiannis, A. (1990) *Modern Microeconomics*, Macmillan Press Ltd., London
- Layard, P.R.G. and A. W. Walters (1978) *Microeconomic Theory*, McGraw Hill, New York
- Lipsey, R.G. and K.A. Chrystal (2004) *Principles of Economics*, (9th Edition), Oxford University Press, New Delhi
- Perloff, Jeffrey M. (2001) *Micro Economics*, Addison Wesley Longman Pvt. Ltd., New Delhi
- Sen, A. (1999) *Microeconomics Theory and Applications*, Oxford University Press, New Delhi
- Stigler, G. (1996) *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi
- Varian, H. (2000) *Microeconomic Analysis*, W. W. Norton, New York
- Salvatore D. (2018). *Managerial Economics in a Global Economy*, 9th Edition, Oxford University Press.

Semester-II or IV

Skill Course: Entrepreneurship and Start-up-II

Course Credits	(02) Two
Course Objective:	The course is a continuation of the course learnt in the previous semester and aims to further make the learner learn to develop a business plan and environment of developing entrepreneurship in India.
Course Learning outcomes	<p>The course will help the entrepreneur to:</p> <ul style="list-style-type: none">• Learn the preparation of a business plan which includes getting the knowledge of developing a financial plan, production/operation plans along with understanding and learning about inventory and quality management• Understand major project planning and scheduling techniques along with their various merits• know about the start-up funding environment in India which assist entrepreneurs at their different stage of entrepreneurship• To get the experience of various successful entrepreneurs from different sectors

Unit-1 Preparation of business plan-II

Financial plan: Profit and loss, Cash flow statement, Balance sheet, sales forecast, Business ratios and cost-benefit analysis, break-even analysis; Production/operation plans: selection of location/site, Input analysis (raw materials), suppliers, quality management and inventory management

Unit-2 Project planning and scheduling techniques

Work breakdown structure (WBS); Programme Evaluation & Review Technique (PERT): Meaning, advantages and limitations; Critical Path Method (CPM): Meaning, advantages and limitations

Unit-3 Start-up funding at different stages in India

Social entrepreneurship; Types of start-up funding, Seed stage: Incubators, Government loan schemes, Angel investors and crowdfunding; Further stages: Venture Capital Funds; Banks/Non-Banking Financial Companies (NBFCs), Venture Debt Funds; Venture Capital Funds, Private Equity/Investment Firms; Government support and start-ups: SIDBI Fund of Funds Scheme, Start-up India Seed Fund Scheme

Unit-4 Analysis of successful entrepreneurs

Study and analysis of different case studies (different sectors) in Uttarakhand; factors leading to success and failures; Innovation and entrepreneurship: types and sources of innovation (A Case study analysis)

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

Madhukar Shukla. "Social Entrepreneurship in India: Quarter Idealism and a Pound of Pragmatism", Sage. 2020

Desai, Vasant. "Small-Scale Industries and Entrepreneurship", Himalaya Publishing House, Delhi, 2003.

Kaulgud, Aruna. "Entrepreneurship Management". Vikas Publishing House, Delhi. 2003

Cynthia, L. Greene. "Entrepreneurship Ideas in Action". Thomson Asia Pvt. Ltd., Singapore. 2004

EDII "Faulty and External Experts – A Hand Book for New Entrepreneurs Publishers: Entrepreneurship Development", Institute of India, Ahmadabad, 1986.

Hisrich R D, Peters M P, "Entrepreneurship" 8th Edition, Tata McGraw-Hill, 2013.

Mathew J Manimala, "Entrepreneurship theory at cross roads: paradigms and praxis" 2 nd Edition Dream tech, 2005.

Rajeev Roy, "Entrepreneurship" 2 Edition, Oxford University Press, 2011.

Vasant Desai, "The Dynamics of Entrepreneurship Development and Management", Himalaya Publication house, 2022

David H. Holt, "Entrepreneurship, New Venture Creation", Prentice Hall India, 1991.

S.S. Khanka, "Entrepreneurial Development", S. Chand & Company Ltd. New Delhi, 2007

Vasant Desai, "Small-Scale Industries and Entrepreneurship", Himalaya Publishing House, Delhi, 2003

Semester-II or IV

Skill Course: Survey methods and Data Analysis-II

Course Credits	(02) Two
Course Objective:	The course is an extension of course studied by learners in previous semester and aims to deliver the knowledge of basic concepts of sampling along with various methods of data analysis.
Course Learning outcomes	<p>The course will help the learner to:</p> <ul style="list-style-type: none">• Understand the basic concepts of sampling• learn data presentation along with Measures of central tendency, dispersion, skewness and Kurtosis.• learn the meaning, types and use of correlation and skewness.• Understand the basic concepts of probability along with probability distribution• Learn selection of adequate test statistic and procedure of Hypothesis testing

Unit-1 Sampling basic concepts

Parameter, Statistic, Estimator and estimate; Sampling and Non-sampling errors; Sampling distribution and sample error; Desirable Properties of an Estimator

Unit-2 Data presentation and Univariate analysis

Classification and Tabulation of data; Graphical presentation of data; Univariate frequency distributions. Measures of central tendency: mean, median and mode. Measures of dispersion and skewness.

Unit 3: Bivariate frequency distribution

Covariance, Karl Pearson's coefficient of Correlation, Rank correlation; Simple regression analysis

Unit-4 Normal distribution, Statistical Inference and Hypothesis testing

Normal distributions, standard normal curve; Statistical Inference: Point estimation, Confidence interval for known and unknown variance, Selection of proper test statistic; Hypothesis testing: Formulation, One and two tailed test, Type I and Type II errors.

Teaching Learning Process: Lectures and tutorials

Suggested Readings:

Elhance, D. N. and V. Elhance, 1988, Fundamentals of Statistics, Kitab Mahal, Allahabad.
Nagar, A. L. and R. K. Dass, 1983, Basic Statistics, Oxford University Press, DeIhi.

Mansfield, E., 1991, Statistics for Business and Economics: Methods and Applications, W.W. Norton and Co.

Yule, G U. and M. G Kendall, 1991, An Introduction to the Theory of Statistics, Universal Books, Delhi.

. M.R. Spiegel, 2003, Theory and Problems of Probability and Statistics (Schaum Series).

Gupta, S.P. 2004. Statistical methods, S. Chand & Sons publications

Nagar, A. L. and Das, R. K., 1989, Basic Statistics: Oxford University Press, Delhi, Chapter 9.

Newbold, P., 1991, Statistics for Business and Economics (Third Edition): Prentice Hall, New Jersey.

Keller, G, and B. Warrack, 1991, Essentials of Business Statistics, Wordsworth Publishing Co., California.

Kothari, C.R. (1985) Research Methodology: Methods and Techniques, Wiley Eastern, New Delhi.

Levin, R.I. and D.S. Rubin. (1999) Statistics for Management, Prentice-Hall of India, New Delhi

Mustafi, C.K. (1981) Statistical Methods in Managerial Decisions, Macmillan, New Deb.

Plane, D.R. and E.B. Oppermann. (1986) Business and Economic Statistics, Business Publications, Inc: Plano.

Zikmund, William G. (1988) Business Research Methods, The Dryden Press, New York.

Semester-III

Core Course: Principles of Macro Economics-I

Course Credits	(06) Six
Course Objective:	The aim of the course is to acquaint the students with Macro Economic theory and concepts which will help them to understand the real-world economic situations and changes.
Course Learning outcomes	<p>The course will help learner to:</p> <ul style="list-style-type: none">• Understand major Macro Economic issues along with meaning and importance of Macro Economics• Learn National Income accounting along with understanding the different concepts of national income and its measurement methods.• Understand the concept of actual and potential GDP along with learning Consumption function and working of multiplier• Learn the objectives and tools of Fiscal policy along with impact of changes in fiscal policy• Learn functions of money along with understanding the quantity theory of money and process of credit creation• Learn the objectives and instruments of Monetary policy

1. Introduction

Concept and significance of macroeconomics; Macroeconomic issues in an economy.

2. National Income Accounting

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

3. Determination of GDP

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

4. National Income and Fiscal policies

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

5. Money in a Modern Economy

Concept of money in a modern economy; functions of money; monetary aggregates; demand for money; quantity theory of Money-Fisher, Cambridge and Friedman theory; liquidity preference and rate of interest; money supply and credit creation; monetary policy: Objectives and instruments

Teaching Learning Process: Lectures and tutorials

Suggested Readings

1. Agarwal, V. (2010) *Macroeconomics: theory and Policy*, Dorling Kindersley (India) Pvt. Ltd., New Delhi
2. Ahuja, H.L. (2012) *Macro Economics, Theory and policy*, S. Chand and Company Ltd., New Delhi

3. Dornbusch, R. and F. Stanley (1997) *Macroeconomics*, McGraw Hill, Inc., New York
4. Errol D'souza, (2008) *Macroeconomics*, Dorling Kindersley (India) Pvt. Ltd. New Delhi
5. Jha, R. (1991) *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
6. Mankiw, N.G. (2013) *Principles of Macroeconomics*, Cengage Learning India (Pvt.) Ltd., New Delhi

Semester-IV

Core Course: Principles of Macro Economics-I

Course Credits	(06) Six
Course Objective:	The aim of the course is to deliver the knowledge related to the major macro-economic variables and how they work in the economy to attain equilibrium
Course Learning outcomes	<p>The course will help learner to:</p> <ul style="list-style-type: none">• Derive IS and LM curves and to understand the simultaneous equilibrium of the goods and money market• Understand the concepts of aggregate demand and aggregate supply• Study aggregate supply in short and long run• Learn the concept of inflation and to know the existence of Philips curve and its further collapse leading to the situation of stagflation• Understand the basic concepts related to international trade• Learn Indian currency convertibility, exchange rate system and its merits and demerits and exchange control.

1. IS-LM Analysis

Derivations of the IS and LM functions; IS-LM and aggregate demand; shifts in the AD curve.

2. GDP and Price Level in Short Run and Long Run

Aggregate demand and aggregate supply; multiplier Analysis with AD curve and changes in price levels; aggregate supply in the SR and LR.

3. Inflation and Unemployment

Concept of inflation; types, causes, and effects of inflation; Inflationary gap; relationship between inflation and unemployment: Phillips Curve in short run and long run, Stagflation.

4. Balance of Payments and Exchange Rate

Balance of Trade; Balance of payments: current account and capital account; market for foreign exchange; determination of exchange rate; Fixed and flexible exchange rate system, Indian Currency convertibility, Exchange control.

Teaching Learning Process: Lectures and tutorials

Suggested Readings

Agarwal, V. (2010) *Macroeconomics: theory and Policy*, Dorling Kindersley (India) Pvt. Ltd., New Delhi

Ahuja, H.L. (2020) *Macro Economics, Theory and policy*, S. Chand and Company Ltd., New Delhi

Dornbusch, R. and F. Stanley (1997) *Macroeconomics*, McGraw Hill, Inc., New York

Errol D'souza, (2008) *Macroeconomics*, Dorling Kindersley (India) Pvt. Ltd. New Delhi

Jha, R. (1991) *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.

Mankiw, N.G. (2013) *Principles of Macroeconomics*, Cengage Learning India (Pvt.) Ltd., New Delhi

