Vijayanagara Sri Krishnadevaraya University Department of Studies in Economics

'Jnana Sagar' Campus, Vinayak Nagar, Cantonment, Ballari - 583105



New CBCS Syllabus

(in-line with NEP-2020)

for

Master of Arts in Economics

With effect from 2021-2022

Vijayanagara Sri Krishnadevaraya University

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Department of Studies in Economics

'Jnana Sagar' Campus, Vinayak Nagar, Cantonment, Ballari - 583105

Programme: Master of Arts (M.A) in Economics

Duration: 2 Years (4 semesters)

Programme Overview:

The Master of Arts (M.A) in Economics will enable students to understand the current trends in the discipline of economics. This master programme is under Choice Based Credit System (CBCS) as per UGC and in-line with the NEP-2020 with effect from the academic year 2021- 22. This programme will begins with advanced microeconomics, macroeconomics leading to strong policy understanding with exemplary application of quantitative techniques with applied economics such as international trade, public finance, banking and financial institutions, economics of health and education etc. The curricula pedagogy enables the student's skills such as innovation and entrepreneurship and data analytics with various software. The programme also offers discipline specific elective courses (DSEs), which allow student to pursue their studies in their area of interest leading to research and it will strengthen student's cognitive behaviour which will help in nation building

Programme Educational Objectives (PEOs):

After the completion of the programme the graduates will be able to:

PEO1: to develop critical thinking to carry out investigation about various socio-economic issues objectively while bridging the gap between theory and practice.

PEO2: to impart in depth knowledge of economic theory regarding optimum utilization of resources.

PEO3: to enable to understand sectoral aspects of various sectors of the economy agricultural, industry, financial market and global & reginal aspects with reference to India

PEO4: To make students familiar with various economic and econometric modelling.

PEO5: to empower students with research capacity by using various latest data softwares for economic policy making, analysis and evaluation.

Programme Outcomes (POs):

At the end of the programme the students will be able to:

PO1: will get in depth knowledge about economic theory regarding optimum utilization and allocation of resources.

PO2: to apply quantitate and econometric tools to solve complex socio-economic problems.

PO3: to formulate broad economic policies.

PO4: to operate with software related to economic data analysis.

PO5: to monitoring and evaluating the public programmes.

PO6: to be professional entrepreneur such as economic advisers, economic policy maker, economist etc.



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New Choice Based Credit System (CBCS) pattern for PG Program in Master of Arts in Economics

First Semester:

Category Subject code Title of the Paper		Marks		Teaching Hours/Week		Credits	Duration of			
j	~~~ j		IA	Sem. Exam	Total	L	Т	Р		Exam (Hrs)
DSC1	21ECO1C1L	Advanced Microeconomics	30	70	100	4	-	-	4	3
DSC2	21ECO1C2L	Advanced Macroeconomics	30	70	100	4	-	-	4	3
DSC3	21ECO1C3L	Quantitative Techniques for Economics	30	70	100	4	-	-	4	3
DSC4	21ECO1C4L	Indian Economic Policy	30	70	100	4	-	-	4	3
DSC5	21ECO1C5L	Industry and Labour Economics	30	70	100	4	-	-	4	3
SEC1	21ECO1S1T	Innovation and Entrepreneurship	20	30	50	-	2	-	2	1
DSC3T1	21ECO1C1T	Quantitative Techniques for Economics	20	30	50	-	2	-	2	1
	Total Semes	ter Marks, Credits, Lecture Hours, Tutorials, Sem. End Exam Hours			600	20	4	-	24	-

M. A. Economics Semester-I

Advanced Microeconomics

Sub. Code: 21ECO1C1L	L: T:P = 4+0+0=4
Credits: 04	Category: DSC1

Course Objectives:

- 1. To familiarize the students with the micro-foundations of the economy;
- 2. To understand and analyse the behaviour of firms and markets.
- 3. To study the functioning, pricing and other decisions of firms under different market structures.

Course Outcome:

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

CO1: Analyse the cost structure of firms.

CO2: Describe economic conditions leading to profit and loss of firms operating under various market structures.

CO3: Analyse functioning of markets under real world conditions.

CO4: Analyse economically optimal levels of output and pricing under different market structures.

CO5: Describe the functioning, pricing and other decisions of monopolists, and cartels.

Module I	Theory of Production and Costs	12		
Production Function: Short-run and Long-run; Law of Variable Proportions; Isoquants; Least Cost Combination of Inputs; Returns to Scale; Multi-Product Firm; Technical Progress and Production Function; Cobb-Douglas, CES Production Functions and Their Properties; Traditional and Modern Theories of Costs. Derivation of Cost Functions from Production Functions.				
Module II	Perfect Competition	11		
Marginal Ana Competition-	lysis as an Approach to Price and Output Determination; Perfe Short and Long-run Equilibrium of the Firm and Industry Supp	ct ply Curve.		
Module III	Monopoly	11		
Monopoly- Short and Long-run Equilibrium; Price Discrimination; Monopoly Control and Regulation; Monopolistic Competition- Equilibrium of the Firm and the Group with Product Differentiation and Selling Costs; Excess Capacity.				
Module IV	Monopsony	11		
Monopsony-Oligopsony, Comparison of monopoly and monopsony. Sources of monopsony power, social costs of monopsony.				
Module V	Oligopoly	11		
Oligopoly- Non-Collusive (Cournot, Bertrand, Edgeworth, Chamberlin, Kinked Demand Curve and Stackelberg's Solution) and Collusive (Cartels and Mergers, Price Leadership and Basing Point Price System) Models				

- 1. Ahuja, H L, (1980): *Advanced Economic Theory*, 21st Edition. S Chand publishers New Delhi.
- 2. Baumol, W.J. (1982): *Economic Theory and Operations Analysis*, Prentice Hall of India, New Delhi
- 3. Hirshleifer J.A.Glazer (1997): *Price Theory and Applications,* Prentice Hall of India, New Delhi.
- 4. Kreps, David .M. (1990): A Course in Micro Economic Theory, University Press Princeton.
- 5. Koutsoyiannis, A. (1979): Modern Micro Economics, Macmillan Press, London.
- 6. Layard.P.R.G and A.W.Walters (1978): *Micro Economic Theory*, McGraw Hill New York.
- 7. Pyndick and Rubenfeld (2012): *Micro Economics*, 8th Edition. Prentice Hall Publishers
- 8. Salvatore, Dominick (2008): *Microeconomics Theory and Applications*, 5th Edition. Oxford University Press.
- 9. Sen, Anindya (1999): *Micro Economic Theory and Applications*, Oxford University Press, New Delhi.
- 10. Varian, Hal. R (2010): Intermediate Microeconomics: A Modern Approach. 8th Edition. WW Norton Company. East West Press, New Delhi.

Advanced Macroeconomics

Sub. Code: 21ECO1C2L	L: $T:P = 4+0+0=4$
Credits: 04	Category: DSC2

Course Objectives:

- 1. To enable the students to understand the macroeconomic environment of an economy
- 2. To designed to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy and related public policy issues for better decision making

Course Outcomes:

By the end of the course the student will be able to:

CO1: understand the macroeconomic environment of an economy,

CO2: learn public policy issues,

CO3: helps in better decision making,

CO4: understand macroeconomic behaviour of different concepts,

CO5: analyse consumption behaviour in the economy,

CO6: impact of multiplier and accelerator in an economy

Module I	Macro Economics and National Income accounting	11			
Basic concepts of Macroeconomics; National Income: Measurement of National Income - National Income Accounts - Accounting Concepts and Identities - Measuring the Cost of Living - GNP and Quality of Life;					
Importance of National Income Accounting; Green Accounting in relation with Indian contemporary accounting system					
Module II	Consumption Function	11			
 Keynes' Psychological Law of Consumption - Implications of the Law; Short Run and Long Run Consumption Function; Empirical Evidence on Consumption Function; Income - Consumption Relationship: Absolute Income, Relative Income, Life Cycle and Permanent Income Hypotheses. Rural and Urban Consumption Function; Empirical Evidence from Rural India 					
Module III	Investment Function	11			
Marginal Efficiency of Investment and Level of Investment; Marginal Efficiency of Capital and Investment - Long Run and Short Run;					
Multiplier: Investment Multiplier - Relevance in Emerging Economies;					
Accelerator: Accelerator and Investment Behaviour - Accelerator impact on Inflation;					

IS-LM Model; Policy influence on Investment - Empirical Evidence

Module IV	Supply of Money and Demand for Money	12				
Supply of Money Budget Deficits a Money - Control	Supply of Money: Demand Determined Money Supply - RBI Approach to Money Supply - Budget Deficits and Money Supply - Open Economy and Money Supply - High Powered Money - Control of Money Supply					
Demand for Mon of Demand for 1 Approach - Tobi Keynes's Liquidi	Demand for Money: Theories of Demand for Money ~ Classical and Neo-classical Theories of Demand for Money: Modern Theories of Demand for Money ~ Fisher's Transaction Approach - Tobin Portfolio Approach - Baumol's Inventory Approach - Friedman's and Keynes's Liquidity Preference Approach.					
Module V	Inflation and Unemployment	11				
Inflation: Inflation and Unemployment - Inflation and Interest Rates - Fisher Effects - Social Cost of Inflation - Stagflation.						
Philips Curve: Philips Curve Analysis (Short run and long run) - Natural rate of Unemployment - Expectation Augmented Phillips's curve.						
Unemployment: Demand for Labour and Supply of Labour - Wage-unemployment relationship - Adaptive Expectations and Rational Expectations Hypothesis;						
Policies to control Inflation - Empirical Analysis of COVID-19 period on Unemployment and Inflation						

- 1. Andrew Abel and Ben Bernanke (2003): Macroeconomics, Pearson, Indian Ed
- 2. David Roned (2001): Advanced Macroeconomics, McGraw Hill International Edition
- 3. Edward Shapiro (1997): Macroeconomic Analysis, Thompson Learning
- 4. Gupta R.D. and Rana A.S. (1998): Post Keynesian Economics, Kalyani Publishers, Ludhiyana
- 5. Jha.R. (1999): Contemporary Macro Economic Theory and Policy, New Age International, New Delhi
- 6. Mankiw N. Gregory (2010): Macroeconomics, 7th Edition, Worth Publishers
- 7. Rana K.C & K.N Verma (1998): *Macro economic Analysis*, Vishal Publications
- 8. Richard T. Froyen (2003): *Macroeconomics*, Pearson Indian Ed.
- 9. Rudiger Dornbusch and Stanley Fischer (2009): Macroeconomics, McGrawhill
- 10. Rosalind Levacic and Alexander Rebman (1982): Macroeconomics, McMillan

Quantitative Techniques for Economics

Sub. Code: 21ECO1C3L	L: $T:P = 4+0+0=4$
Credits: 04	Category: DSC3

Course Objectives:

- 1. The aim of the course is to provide basic inputs of applied statistics and application of statistical tools in economics
- 2. This course will help the student in drawing inferences about various statistical hypotheses
- 3. The course helps to develop the analytical skills in the student

Course Outcomes:

By the end of the course the student will be able to:

- **CO1:** Analyse economic theories in numerical form,
- **CO2:** Understand complex economic theories in easier, shorter and faster way,
- **CO3:** Analyse economic problems,

CO4: application of statistical tools in economics and

CO5: resent and draw inferences in more expressive way

Module I	Introduction to Quantitative Technique	10				
Definition and Ty	Definition and Types of Statistics: Descriptive Statistics and Inferential Statistics;					
Sources of Data Schedules and Qu	Sources of Data: Primary and Secondary Data; Methods of Primary Data Collection: Schedules and Questionnaires;					
Types of Data: Nominal, Ordinal and Ratio-Scale Data - Qualitative and Quantitative Data - Individual, Discrete and Continuous Data - Cross Section, Time Series and Pooled Data						
Module II	Measures of Central Tendency	12				
Meaning of Central Tendency; Measurement of Average: Mean ~ Arithmetic Mean - Weighted Arithmetic Mean - Geometric Mean - Harmonic Mean; Median; Quartile; Mode;						
Meaning of Dispersion, Objectives of Dispersion: Range - Mean Deviation - Standard Deviation - Coefficient Variation;						
Skewness: Types of Skewness - Measures of Skewness;						
Kurtosis: Types o	of Kurtoses - Measures of Kurtosis					
Module III	Correlation and Regression Analysis	12				
Correlation: Meaning - Types of Correlation - Partial and Multiple Correlations;						
Measurement of Correlation ~ Scatter Diagram - Karl Pearson's Coefficient of Correlation - Spearman's Rank Correlation; Testing Correlation of Coefficients						
Regression: Simple Regression Model – Estimation - Least Squares Method - Goodness of Fit						

Module IV	Time Series Analysis	10
Introduction to Ti	ma Samian Innantana of Time Samian Common anto of Time S	ani ani

Introduction to Time Series; Importance of Time Series; Components of Time Series;

Measurement of Secular Trend - Graphic method - Semi-average method - Moving average method - Least Square method

Module V Hypothesis Testing

12

Hypothesis Testing: Meaning and Importance;

Basic Concepts of Testing of Hypothesis: null hypothesis - alternative hypothesis - one-tail test - two-tails test;

Steps in Hypothesis Testing; Type of Errors in Hypothesis Testing - Type I and Type II errors;

Hypothesis Testing: Traditional Approach – P Value Approach - Confidence Interval Approach

- 1. Anderson, Sweeney & Williams, (2002): *Statistics for Business & Economics*, 11th *Edn.*, Thomson South-Western, Cengage Learning, India.
- 2. Agarwal B.L (2013): Basic Statistics, New Age International Publication, New Delhi.
- 3. Gupta S P (2012) Statistical Methods, S. Chand and Company, New Delhi.
- 4. Gupta S. C. (2017): Fundamentals of Statistics, Himalaya Publishing House, Bombay
- Goon A.M., Gupta M.K. and Dasgupta B. (2013): *Fundamentals of Statistics*, Vol. I & II, 8th Edn, The World Press, Kolkata.
- 6. Jain T R, and V K Ohri (2020): Statistics for Economics, V K Global Publiser Pvt. Ltd.
- 7. Johnson R. and G. Bhattacharya (2000): *Statistics: Principles and Methods,* John Wiley and Sons.
- 8. Nagar A.L. and R.K.Das (1997): *Basic Statistics*, Oxford University Press, New Delhi.
- 9. Sachdeva S. (2017): *Quantitative Techniques*, Lakshmi Narain Agarwal Publications, Agra.
- 10. Veerachami R. (2019): *Quantitative Methods for Economists*, New Age International Publication, New Delhi.

Indian Economic Policy

Sub. Code: 21ECO1C4L	L: $T:P = 4+0+0=4$
Credits: 04	Category: DSC4

Course Objectives:

- 1. Acquaint the students with development issues and critical appraisal of the Indian Economy
- 2. Enhance analytical power of the students in understanding India's economic development policies

Course Outcomes:

By the end of the course the student will be able to:

CO1: critically appraise the Indian economy,

CO2: understand issues in India's economic policy,

CO3: map the influence and impact of infrastructure on economic development,

CO4: learn challenges in framing government policy,

CO5: give solutions to government for problems while framing policy,

CO6: analyse issues related to foreign trade.

Module I	Structural Reforms in India	11

Introduction: Changing features of the Indian Economy;

Economic Policy before 1991: Mixed Economy - Centralized planning and Five-Year Plans - Market intervention Policies - Public Sector Investment Policies.

Economic Policy after 1991: Sectoral transformation and performance of the Economy since 1991. Impact of new economic policy on Indian Economy.

Policy Formulation: Retrospective of the Planning Commission to establish NITI Aayog; NITI Aayog- Objectives, Features, and Operation. Multi-Level Planning- Centre, State, District, Block, and Local Level Planning.

Module II	Demography, Unemployment, and Poverty	12

Introduction: Role of Human capital on Economy.

Census of Population: Importance - demographic features of the Indian population - Demographic transition and its significance on the Indian Economy - Indian population Policy and Development - India's human development record from a global perspective - Gender issues.

Migration and Urbanization: Causes and consequences of migration - trends of Urbanization - Emerging issues and challenges of Urbanization.

Unemployment and Poverty: Estimation of Unemployment and analysis of current unemployment eradication policies - Various committees for estimation of Poverty _ Analysis of recent Poverty eradication policies.

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Module III	Agriculture and Industry	11
Introduction: Role of Agriculture on changing perspective - Commercialization of Indian agriculture - Trends and pattern in agriculture growth.		
Green Revolution: New initiatives for water conservation - Agricultural marketing and credit facilities - Farm Subsidies - present issues in Indian agriculture - Agriculture Policies - Contract farming - Doubling farmer's income - Food security in India – PDS and Food subsidy.		
Industrial Sector: Review of industrial policies before 1991 - New Industrial Policy 1991 - structural changes in Indian industries, performance of public sector enterprises - Privatization and disinvestment debate. MSME's.		
Recent policies for Production linked	or Industrial Promotion: Make in India, Mudra Yojana, Start-u l incentives.	p India, and
Module IV	Infrastructure	11
Introduction: Role of Infrastructure, Economic and Social Infrastructure.		
Irrigation. Irrigation Policy.		

Social Sector: Status of Health and Education Sectors - Issues and Challenges - Education policy - Gender parity index - analysis of Sustainable development Goals concerning India.

Financial Sector: Changing role of RBI - Non-Banking Financial Institutions - SEBI. Analysis of Financial sector reforms - the role of Small and payment banks and sovereign gold bond scheme.

Module V External Trade

11

Introduction: Salient features of India's foreign trade.

Trade Direction: composition - direction, and organization of trade, recent changes - Balance of payments - Recent policy changes and India's export - Current account deficit.

Trade reforms: Recent reforms in foreign trade - EXIM policy - Role of FDI in India's economic development - Indian Competition commission,

India and WTO requirements: Bilateral Trade Agreements and their implications.

- 1. Bhagvati, Jagdish and Arvind Pangariya (2011): India's Tryst with Destiny, Harper Collins
- 2. Bawa, R.S. and P.S. Raikhy (Ed.) (1997): *Structural Changes in Indian Economy*, Guru Nanak Dev University Press, Amritsar
- 3. Gaurav Datt and Ashwani Mahajan (2016): *Indian Economy*, S Chand Publications, 72nd edition.
- 4. Jean Dreze, and Amartya Sen (2002): 'India: Development and Participation, Oxford University Press, New Delhi.
- 5. Krueger A (2003): '*Economic Policy Reforms and the Indian Economy*, Oxford University Press.

- 6. Ramesh Singh (2020): '*Indian Economy*, McGraw Hill Education (India) Private Limited, 12th edition.
- 7. Rangarajan, C (2004): *Select Essays on Indian Economy,* Academic Foundation, Vol.1&2.
- 8. S K Mishra and V K Puri (2020): *Indian Economy*, Himalaya Publishing House, 38th edition.
- 9. Timothy Besley (2016): *Contemporary Issues in Development Economics*, Palgrave Macmillan, 1st edition.
- 10. Uma Kapila (2020): *Indian Economy Since Independence*, Academic Foundation, 31st edition.

Industry and Labour Economics

0+0-4
DSC5

Course Objectives:

- 1. To familiarize students the overall industrial development
- 2. To create adequate information base among the students about basic issues related to labour

Course Outcomes:

By the end of the course the student will be able to:

CO1: Know the role of public and private sector in industrial development,

CO2: understand issues of industrial growth,

CO3: figure out the need for balanced regional development in India,

CO4: give the techniques of improving labour productivity,

CO5: analyse recent economic policies such as 'make in India',

CO6: find out demand and supply of labours in India,

CO7: know the wage determination in various sectors of the economy

Module I Industrial Economics	11		
Introduction of Industrial Economics and Industrial Structure: Meaning-Nature and Scope- Significance of Industrial Economics; Concept of Firm: Objectives - Ownership and Control; Size of the Firm-Optimum Firm. Passive and Active behaviour of a firm.			
Industrial Structure: Changing role of Public Sector, Short comings of Public Sector - Role of Private Sector in Industrial development and its Limitation - Large, Medium and Small-Scale Industries (MSME) - Current Problems in Industrial Sector; Industrial combinations - Mergers and Amalgamations (M & A), Integration.			
Module II Industrial Location and Productivity	11		
 Industrial Location: Factors affecting Industrial Location - Need for Balanced Regional Development in India - Theories of Industrial Location: Weber - Sargent Florence and August Losch - Centre Place Theory. Industrial Productivity: Meaning - Concept - Formulas of Productivity Index - Measurement; Tools of Industrial Productivity; Techniques of Improving Productivity and Quality of Products; Production Control and Advantages of Higher Productivity. 			
Module III Industrial Finance and Industrial Policy	11		
Industrial Finance: IDBI – IFCI – ICICI – IIBI – SIDBI; Commercial Banks and Other Financial Institutions: Life Insurance Corporation of India (LIC) - Unit Trust of India (UTI);			
Financial Statement – Balance Sheet - Income Statement - Cash flow Statement.			
Industrial Policy: Industrial Policy 1991 – New Industrial Policy 2020 - Karnataka's New Industrial Policy for 2020-25 – 'Make in India' policy for promoting the manufacturing industry			

Module IV Industrial Labour and Labour Market	12			
Industrial Labour: Characteristics of labour as a factor of production - Demand for labour in relation to size and pattern of investment - Supply of labour in relation to growth of labour force - Unorganised labourers in India, and issues.				
Labour Market: Nature and characteristics of labour markets in India - Structural Changes in India's Labour Market - Impact of globalization on labour market.				
Labour market policies in India: Passive Labour Market Policy - Active Labour Market Policy - Extending and Targeting Labour Market Policies to Trade affected workers - Exit policy - Safety Requirements.				
Module VEmployment, Wage determination and Industrial Relations11				
Employment: Employment and Economic Development - Current Employment and Unemployment Situation - Employment models – J. B. Say's and Keynesian Theory of Employment.				
Wage Determination: Concepts of Minimum Wage - Living Wage and Fair Wage; Wage determination in various sectors – Rural – Urban - Organized and Unorganized Sectors; National Wage Policy - Wage Bonds in India.				
Industrial Relations: Meaning – Scope Objectives and types of Industrial Relations; Essential conditions for sound Industrial Relations; Strategic Issues in Labour Management Relation; Growth and achievements of labour unions in India; Industrial disputes and their settlement and prevention mechanism.				

- 1. Ahluwalia, I. J. (1985): *Industrial Growth in India: Stagnation in the Mid-Sixties*, Delhi: Oxford University Press.
- 2. Armstrong, M. and R. Porter (eds.) (2007): *Handbook of Industrial Organization*, Vol.3. North Holland.
- 3. Bhat, T.P. (2013): *Growth and Structural Changes in Indian Industries*, ISID Working Paper, No. 2103/02, New Delhi: Institute for Studies in Industrial Development.
- 4. Dasai, B. (1999): Industrial Economy in India. (3rd Edition), Himalaya Publishing House, Mumbai.
- 5. Hay, D. A. and D. J. Morris (1991): *Industrial Economics and Organization: Theory and Evidence*, Oxford University Press.
- 6. Krishna, K.L. (2011): Industrial growth and Diversification, Academic Foundation New Delhi.
- 7. Mittal A.C and Sanjay Prakash Sharma (2005): *Labour Economics*, RSBA Jaypur
- 8. S.K. Mishra & V.K. Puri (2009), Indian Economy, Himalaya Publications house.
- 9. Singh, A. and A.N. Sadhu (1988): Industrial Economics, Himalaya Publishing
- 10. Nagjar, R. (2003), *Industrial Policy and Performance since 1980: Which Way Now?*, Economic & Political Weekly, 38(35), pp. 3707–3715.

Innovation and Entrepreneurship

Sub. Code: 21ECO1S1T	L: $T:P = 0+2+0=2$
Credits: 02	Category: SEC1

Course Objectives:

- 1. To deepen the theoretical and experiential understanding of concepts, strategies and tools of entrepreneurship.
- 2. To promote Entrepreneurship as life-skills to improve quality of life, skills of creation and management of entrepreneurial pursuits.
- 3. To encourage students for self-employment and give confidence that it is a viable option for earning dignified means of living.

Course Outcome:

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

CO1: To understand their respective entrepreneurial competencies

CO2: Provide an innovative solution to real-world problems

CO3: Understand the role of entrepreneurs as problem solvers

CO4: Develop effective creative projects

CO5: Make feasible economical, marketing and financial plan

Module I	Entrepreneurship: Concept and Functions	10 Hours		
Entrepreneurship: Concept, Functions and Need; Process of Entrepreneurship; Types of Entrepreneurs; Competencies of an Entrepreneur; Entrepreneurship – The Indian Scenario; Social Entrepreneurship.				
Module II	Entrepreneurship Track	11 Hours		
Innovation: Introduction to Innovation; Schumpeter Theory of Innovation; Innovations and Entrepreneurial Ventures – Global and Indian; Entrepreneurial Idea Generation; Identifying Business Opportunities and Selection (BIOS); Feasibility Study and Opportunity Assessment.				
Module III	New Venture Planning	11 Hours		
New Venture Plan: Meaning, Purpose and Elements; New Venture and National – Global Business Environment				
Preparation of New Venture Plan: Organisational Plan – Economic Aspects - Market Plan - Business Finance - Resource Mobilization				
Types of IPR – Patents – Copywrites (theory)				

- 1. Edward Lumsdaine and Martin Binks (2006): *Entrepreneurship from Creativity to Innovation: Effective Thinking Skills for a Changing World*, Trafford Publishing.
- 2. Gordon Cain (2001): Everybody Wins! A Life in Free Enterprise, Chemical Heritage Foundation.

- 3. James Harrington H. (2018): *Creativity, Innovation, and Entrepreneurship,* Productivity Press.
- 4. John R. Bessant and Joe Tidd (2015): Innovation and Entrepreneurship, Wiley Publications.
- 5. Ken Banks (2021): Social Entrepreneurship and Innovation: International Case Studies and Practice, Kogan Page Publisher.
- 6. Mohd. Shoeb (2020): Skill Development, Innovations and Entrepreneurship, New Century Publications.
- 7. Pankaj Goyal (2017): Before You Start Up: How to Prepare to Make Your Startup Dream a Reality, Fingerprint Publishing.
- 8. Peter F. Drucker (2006): *Innovation and Entrepreneurship: Principles and Practice,* Routledge Classics, New York.
- 9. Stephen Spinelli and Rob Adams (2015): *New Venture Creation: Entrepreneurship for the 21st Century*, McGraw-Hill Education.
- 10. Vinay Dabholkar and Rishikesha T.Krishnan (2013): 8 Steps To Innovation: Going From Jugaad to Excellence, Collins India.

Quantitative Techniques for Economics

Sub. Code: 21ECO1C1T	L: $T:P = 0+2+0=2$
Credits: 02	Category: DSC3T1

Course Objectives:

- 1. The aim of the course is to provide basic inputs of applied statistics and application of statistical tools in economics
- 2. This course will help the student in drawing inferences about various statistical hypotheses
- 3. The course helps to develop the analytical skills in the student

Course Outcomes:

By the end of the course the student will be able to:

- **CO1:** analyse economic theories in numerical form,
- CO2: understand complex economic theories in easier, shorter and faster way,
- **CO3:** analyse economic problems,
- CO4: application of statistical tools in economics and

CO5: draw inferences in more expressive way

Module I	Measures of Central Tendency	18 (P)	
Computation of Mean - Arithmetic Mean - Weighted Arithmetic Mean - Geometric Mean - Harmonic Mean: Median: Quartile:			
Computation of Mean Mode;			
Computation of Range - Mean Deviation - Standard Deviation - Coefficient Variation;			
Computation of S	Skewness;		
Computation of Kurtosis.			
Module II	Correlation and Regression Analysis	17 (P)	
Measurement of Correlation ~ Scatter Diagram - Karl Pearson's Coefficient of Correlation - Spearman's Rank Correlation; Testing Correlation of Coefficients			
Regression Estim	ation - Least Squares Method - Goodness of Fit		
Module III	Time Series Analysis and Hypothesis Testing	17 (P)	
Measurement of Secular Trend - Graphic method - Semi-average method - Moving average method - Least Square method			
Hypothesis Testing: Traditional Approach – P Value Approach - Confidence Interval Approach			

- 1. Anderson, Sweeney & Williams, (2002): *Statistics for Business & Economics*, 11th *Edn.*, Thomson South-Western, Cengage Learning, India.
- 2. Agarwal B.L (2013): Basic Statistics, New Age International Publication, New Delhi.
- 3. Gupta S P (2012) Statistical Methods, S. Chand and Company, New Delhi.
- 4. Gupta S. C. (2017): Fundamentals of Statistics, Himalaya Publishing House, Bombay
- Goon A.M., Gupta M.K. and Dasgupta B. (2013): *Fundamentals of Statistics*, Vol. I & II, 8th Edn, The World Press, Kolkata.
- 6. Jain T R, and V K Ohri (2020): Statistics for Economics, V K Global Publiser Pvt. Ltd.
- 7. Johnson R. and G. Bhattacharya (2000): *Statistics: Principles and Methods,* John Wiley and Sons.
- 8. Nagar A.L. and R.K.Das (1997): *Basic Statistics*, Oxford University Press, New Delhi.
- 9. Sachdeva S. (2017): *Quantitative Techniques*, Lakshmi Narain Agarwal Publications, Agra.
- 10. Veerachami R. (2019): *Quantitative Methods for Economists,* New Age International Publication, New Delhi.

CBCS Question Paper Pattern for PG Semester End Examination

Disciplines Specific Core (DSC) and Discipline Specific Elective (DSE)

Paper Code:	Paper Title:	
Time: 3 Hours		Max. Marks: 70
Note: Answer any FIVE of	f the following questions, each question ca	arries equal marks.
Q1.		14 Marks
Q2.		14 Marks
Q3.		14 Marks
Q4.		14 Marks
Q5.		14 Marks

Note: Question No.1 to 5, one question from each unit i.e. (Module I, Module II,). The Questions may be a whole or it may consists of sub questions such as a,b, c etc...

Q6. Note: Question No.6, shall be from Module II and III, the Question may be a whole or it may consists of sub questions such as a,b, c etc...

Q7. 14 Marks

Note: Question No.7, shall be from Module IV and V, the Question may be a whole or it may consists of sub questions such as a,b, c etc...

Note: Question No-8 shall be from Module II, Module III, Module IV and Module V. The question shall have the following sub questions and weightage. i.e a - 05 marks, b - 05 marks, c – 04 marks.

Q8.

14 Marks

14 Marks

Skill Enhancement Courses (SECs)

Paper Code:

Paper Title:

Time: 1 Hours

Max. Marks: 30

There shall be Theory examinations of Multiple Choice Based Questions [MCQs] with Question Paper set of A, B, C and D Series at the end of each semester for SECs for the duration of One hour (First Fifteen Minutes for the Preparation of OMR and remaining Forty-Five Minutes for Answering thirty Questions). The Answer Paper is of OMR (Optical Mark Reader) Sheet.

Question Paper Pattern for Subjects with Tutorial

For the subjects with Tutorial component, there is Internal Semester-End Examination (ISEE) to the component C3 at department level. The liberty of assessment of C3 is with the concerned faculty of tutorial course. The faculty may present innovative method of evaluation of component C3 before the respective BoS for approval before the commencement of the course during the semester.

However, the BoS approves Internal Semester-End Examination of Multiple Choice Based Questions [MCQs] method for the duration of One hour (First Fifteen Minutes for the Preparation of OMR and remaining Forty-Five Minutes for Answering thirty Questions), in respective semester with 30 questions carrying one mark each in respective tutorial course. The Answer Paper is of OMR (Optical Mark Reader) Sheet.

Note: the internal semester end examination of tutorial course agenda approved as per the oral direction of the university authorities.

The outline for continuous assessment activities for Component-I (C1) and Component-II (C2) of a course shall be as under;

S1.No.	Activities	C1 marks	C2 marks	Total IA Marks
01	Session Test	10	10	20
02	Seminars/Presentations/Activity	05	-	05
03	Case study /Assignment / Fieldwork / Project work etc.	-	05	05
	Total	15	15	30

a. For theory courses of 04 Credits:

Suggested Continuous Assessment Session Test (For Sl.No.01 in the above table) (10 marks) (C1 & C2) question paper pattern:

Internal Test C1/C2

Paper Code:

Time: 45 minutes

Instructions: Answer both the sections

SECTION – A

Answer any <u>ONE</u> of the following questions, each question carries <u>FIVE</u> marks

(1x5=5)

1.

2.

3.

<u>SECTION – B</u>

Answer any <u>**TWO**</u> of the following questions, each question carries 2.5 marks (2x2.5=5)

a.	 (2.5)
b.	 (2.5)
c.	 (2.5)
d.	 (2.5)

Max Marks: 10

Paper Title:

b. For SEC/Tutorial of 02 Credits:

S1.No.	Activities	C1 marks	C2 marks	Total IA Marks
01	Session Test	05	05	10
02	Seminars/Presentations/Activity	05	-	05
03	Case study /Assignment / Fieldwork / Project work etc.	-	05	05
	Total	10	10	20

Suggested Continuous Assessment Session Test (For Sl.No.01 in the above table) (05 marks) (C1 & C2) question paper pattern:

Internal Test C1/C2

Paper Code:	Paper Title:
Time: 30 minutes	Max Marks: 5
Answer any ONE of the following questions, each question carrie sub-question i.e., 'a' & 'b' carries 2.5 marks each)	s <u>FIVE</u> marks (each (1x5=5)
1.	
a	(2.5)
b	(2.5)
2.	
a	(2.5)
b	(2.5)

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