POSTGRADUATE DEGREE PROGRAMME

M.A. Economics

(1 Year for PG Diploma / 2 Years for Degree)

CURRICULUM & SYLLABUS

REGULATION 2023

Choice Based Credit System (CBCS)

&

Learning Outcomes Based Curriculum Framework (LOCF)

Effective from the Academic Year

2023 -2024

Department of Economics
School of Management Studies and Commerce

DEPARTMENT OF ECONOMICS

VISION OF THE DEPARTMENT
The Department of Economics aims to be a center for learning and research in economics. We strive to help students develop strong analytical skills and a deep understanding of economic issues. We are committed in providing high-quality education and fostering research that addresses real-world economic challenges.

MISSION OF THE DEPARTMENT	
M1	To Provide students with a comprehensive education in economics, equipping them with the knowledge and skills needed to analyze economic problems.
M2	To develop the ability to think deeply about economic concepts and challenges.
M3	To apply economic knowledge to real-world problems and support economic growth.
M4	To equip students with communication skill, leadership quality, ability to work with team help to improve the society.
M5	To provide value based and technical oriented related students help to build the nation.

PROGRAMME EDUCATIONAL OUTCOMES (PEO)	
PEO1	Program enables the learners to build up a professional carrier as economists, financial advisors, economics planners and policy makers. It prepares them to cope up with the obstacles involved in the process of economic development
PEO2	Exhibits theoretical and practical knowledge of economic concepts and theories to explain and understand the business and economic phenomena in the domestic and global context.
PEO3	Acquaint with statistical, mathematical methods to be applied to obtain solutions to pertinent questions by using qualitative and quantitative reasoning. Application of Statistical techniques to analyze and interpret data for more authentication.
PEO4	Equips knowledge of the discipline of Economics including concepts, fundamental theories, fiscal and monetary policies to overcome the problems of inflation and deflation.
PEO5	Publish research findings and innovations in national, international conferences and seminars, project presentations, and publication of research articles in peer reviewed and indexed conferences and journals.

PROGRAMME OUTCOMES (PO)	
PO1	**Logical / Analytical reasoning:** Learners will effectively visualize, conceptualize, articulate, and solve complex problems or address problems that do not have a clear answer, with available information, through experimentation and observation, using microeconomic and macroeconomic theories as well as calculus and statistical tools.
PO2	**Conceptualizing**: Learners are capable to apply economic analysis for day-to-day problems by helping them to understand events, identify proposals to solve the issues, evaluate specific policy proposals and implement the policies in an

	effective manner
PO3	**Integrative Knowledge:** Students will broaden their global and disciplinary knowledge, enhancing their understanding of the world around them both within economy and beyond.
PO4	**Applicability:** Students are provided with opportunity to focus on applied and policy issues in Economics by emphasizing quantitative and theoretical aspects of Economics.
PO5	**Superintendence**: Students are equipped with skills to work as part of a team and lead others, ensuring them to prepare and navigate diverse audiences and situations.
PO6	**Specialization:** Learners to understand the economic functioning and conditions of our country in the context of past, present and future.
PO7	**The Teacher and Society:** Application of reasoning for the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional teaching practice.

PROGRAMME SPECIFIC OUTCOMES (PSO)	
PSO1	Demonstrate competency across economic disciplines, specifically apply the essential elements of core political theories and economics principles to analyse and evaluate problems and to construct and implement solutions in the political environment.
PSO2	As the Post Graduate Course contains the fields like public administration, Indian constitution, Political Geography and cyber laws etc., it enhances them to compute and assess the real situation of the economy
PSO3	Demonstrate ability to recognize and identify the working of the Indian constitution and its operation at the central and state level.

BOARD OF STUDIES

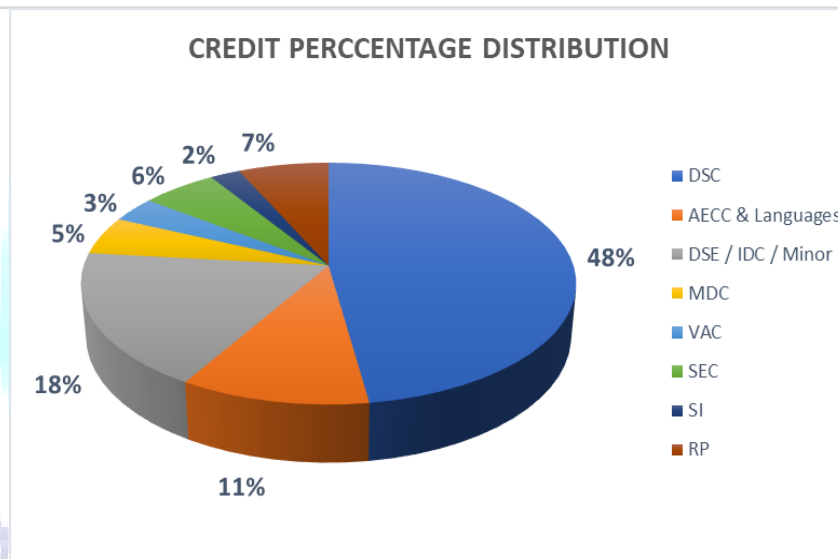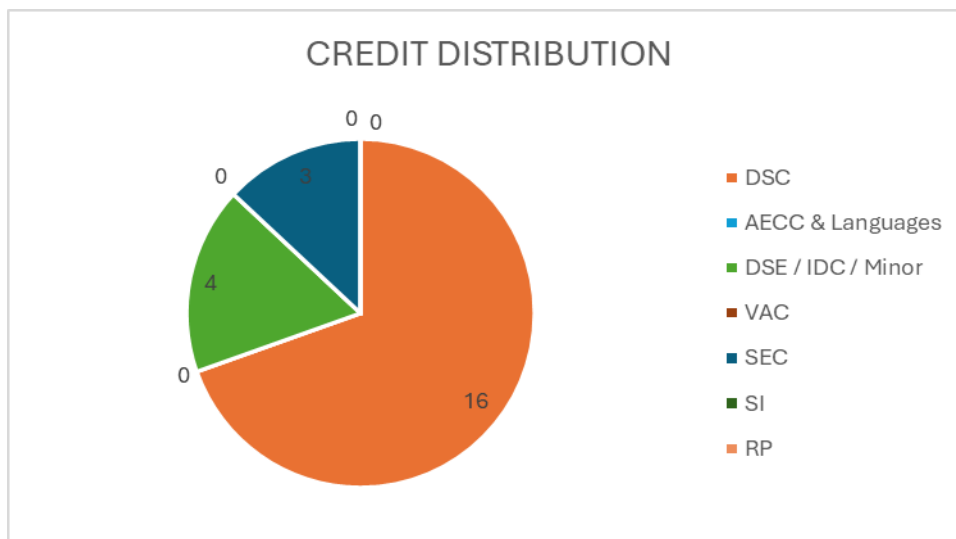## List of Members

Department of Economics

S. No	Name & Designation	Address	Role
1.	Dr.S.N.Sugumar	Professor and Head, Department of Economics, School of Management studies and commerce, VISTAS, Chennai-117	Internal Member
2.	Dr.N.Gajalakshmi	Associate Professor Department of Economics, SDNB Vaishnav College, Chrompet Chennai-44	Academic Expert (External Member)
3.	Mr.M.Gunasekar	Vice-President Tristha Global Private Ltd Tamarai Tech Park, Guindy Chennai-32	Industrial Expert (External Member)
4.	Dr.B.P.Chandramohan	Professor and Director, School of Management studies and Commerce, VISTAS, Chennai-117	Internal Member
5.	Dr. S. Chandrachud	Professor Department of Economics, School of Management studies and commerce, VISTAS, Chennai-117	Internal Member
6.	Dr.S.Jansirani	Professor Department of Economics, School of Management studies and commerce, VISTAS, Chennai-117	Internal Member

CREDIT DISTRIBUTION

M.A., Economics
Minimum credits to be earned: 92

Component	I Sem	II Sem	III Sem	IV Sem	2 Yrs. Total Credits
DSC	16	16	16	16	64
AECC & Languages	-	-	-	-	-
DSE / IDC / Minor	4	4	4	4	16
VAC	-	-	-	-	-
SEC	3	3	3	3	12
SI	-	-	-	-	-
RP	-	-	-	-	-
Total Credits	23	23	23	23	92

CREDIT DISTRIBUTION

Legend:
- DSC
- AECC & Languages
- DSE / IDC / Minor
- VAC
- SEC
- SI
- RP

Values shown: 16, 3, 0, 0, 4, 0, 0

CREDIT PERCCENTAGE DISTRIBUTION

Legend:
- DSC
- AECC & Languages
- DSE / IDC / Minor
- MDC
- VAC
- SEC
- SI
- RP

Values shown: 48%, 11%, 18%, 5%, 3%, 6%, 2%, 7%

ABBREVIATIONS

DSC	Disciplinary Specific Core
AECC	Ability Enhancement Compulsory Courses
DSE	Disciplinary Specific Elective
IDC	Interdisciplinary / Minor Courses
MDC	Multidisciplinary Courses
VAC	Value Added Courses

SEC	Skill Enhancement Courses
SI	Summer Internship
RP	Research Project

CURRICULUM STURCTURE

M.A Economics

Total number of Credits: 92

		M.A Economics Minimum Credits to be earned: 92								
		SEMESTER 1								
			Hours/Week					**Maximum Marks**		
Category	**Code**	**Course**	**L**	**T**	**P**	**O**	**C**	**CIA**	**SEE**	**Total**
DSC 1	23CMCN11	ADVANCED MICRO ECONOMIC ANALYSIS - I	4	0	0	2	4	40	60	100
DSC 2	23CMCN12	PUBLIC ECONOMICS- I	4	0	0	2	4	40	60	100
DSC 3	23CMCN13	INDIAN ECONOMY- I	4	0	0	2	4	40	60	100
DSC 4	23CMCN14	MANAGERIAL ECONOMICS	4	0	0	2	4	40	60	100
DSE 1	23DMCN11	STATISTICAL METHODS	3	1	0	2	4	40	60	100
SEC 1	23SMCN11	BUSINESS COMMUNICATION	3	0	0	1	3	40	60	100
			22	1			23			

CIA - Continuous Internal Assessment   SEE - Semester End Examination

*L – Lecture, *T- Tutorial, *P- Practical, *O - Outside the class effort / self-study

SEMESTER 2										
Category	Code	Course	L	T	P	O	C	CIA	SEE	Total
DSC 5	23CMCN21	ADVANCED MICRO ECONOMIC ANALYSIS- II	4	0	0	2	4	40	60	100
DSC 6	23CMCN22	PUBLIC ECONOMICS-II	4	0	0	2	4	40	60	100
DSC 7	23CMCN23	INDIAN ECONOMY-II	4	0	0	2	4	40	60	100
DSC 8	23CMCN24	INTERNATIONAL ECONOMICS	4	0	0	2	4	40	60	100
DSE 2	23DMCN21	MATHEMATICAL ECONOMICS	3	1	0	2	4	40	60	100
SEC 2	23SMCN21	COMPUTER APPLICATIONS FOR ECONOMISTS	3	0	0	1	3	40	60	100
			22	1	-	-	23	-	-	-

SEMESTER 3										
Category	Code	Course	L	T	P	O	C	CIA	SEE	Total
DSC 9	23CMCN31	MACRO ECONOMICS-1	4	0	0	2	4	40	60	100
DSC 10	23CMCN32	MONETARY ECONOMICS	4	0	0	2	4	40	60	100
DSC 11	23CMCN33	ENVIRONMENTAL AND RESOURCE ECONOMICS	4	0	0	2	4	40	60	100
DSC 12	23CMCN34	ENERGY ECONOMICS	4	0	0	2	4	40	60	100

DSE 3	23DMCN31	ECONOMETRICS	3	1	0	2	4	40	60	100
SEC 3	23SMCN31	INDUSTRIAL ECONOMICS	3	0	0	1	3	40	60	100
			22	**1**	**-**	**-**	**23**	**-**	**-**	**-**

SEMESTER 4										
Category	**Code**	**Course**	**L**	**T**	**P**	**O**	**C**	**CIA**	**SEE**	**Total**
DSC 13	23CMCN41	MACRO ECONOMICS-II	4	0	0	2	4	40	60	100
DSC 14	23CMCN42	FINANCIAL ECONOMICS	4	0	0	2	4	40	60	100
DSC 15	23CMCN43	RESEARCH METHODOLOGY	4	0	0	2	4	40	60	100
DSC 16	23CMCN44	COMPUTATIONAL ECONOMICS	4	0	0	2	4	40	60	100
DSE 4	23DMCN41	DISSERTATION	4	0	0	2	4	40	60	100
SEC 4	23SMCN41	INTERNSHIP	0	0	3	1	3	40	60	100
			20	**-**	**3**	**-**	**23**	**-**	**-**	**-**

DISCIPLINE SPECIFIC CORE COURSES

Category	**Code**	**Course**	**L**	**T**	**P**	**O**	**C**
DSC 1	23CMCN11	ADVANCED MICRO ECONOMIC ANALYSIS - I	4	0	0	2	4
DSC 2	23CMCN12	PUBLIC ECONOMICS- I	4	0	0	2	4
DSC 3	23CMCN13	INDIAN ECONOMY- I	4	0	0	2	4
DSC 4	23CMCN14	MANAGERIAL ECONOMICS	4	0	0	2	4

Category	Code	Course	L	T	P	O	C
DSC 5	23CMCN21	ADVANCED MICRO ECONOMIC ANALYSIS- II	4	0	0	2	4
DSC 6	23CMCN22	PUBLIC ECONOMICS-II	4	0	0	2	4
DSC 7	23CMCN23	INDIAN ECONOMY-II	4	0	0	2	4
DSC 8	23CMCN24	INTERNATIONAL ECONOMICS	4	0	0	2	4
DSC 9	23CMCN31	MACRO ECONOMICS-1	4	0	0	2	4
DSC 10	23CMCN32	MONETARY ECONOMICS	4	0	0	2	4
DSC 11	23CMCN33	ENVIRONMENTAL AND RESOURCE ECONOMICS	4	0	0	2	4
DSC 12	23CMCN34	ENERGY ECONOMICS	4	0	0	2	4
DSC 13	23CMCN41	MACRO ECONOMICS-II	4	0	0	2	4
DSC 14	23CMCN42	FINANCIAL ECONOMICS	4	0	0	2	4
DSC 15	23CMCN43	RESEARCH METHODOLOGY	4	0	0	2	4
DSC 16	23CMCN44	COMPUTATIONAL ECONOMICS	4	0	0	2	4

DISCIPLINE SPECIFIC ELECTIVE COURSES

Category	Code	Course	L	T	P	O	C
DSE 1	23DMCN11	STATISTICAL METHODS	3	1	0	2	4

DSE 2	23DMCN21	MATHEMATICAL ECONOMICS	3	1	0	2	4
DSE 3	23DMCN31	ECONOMETRICS	3	1	0	2	4
DSE 4	23DMCN41	DISSERTATION	4	0	0	2	4

SKILL ENHANCEMENT COURSES

Category	Code	Course	L	T	P	O	C
SEC 1	23SMCN11	BUSINESS COMMUNICATION	3	0	0	1	3
SEC 2	23SMCN21	COMPUTER APPLICATIONS FOR ECONOMISTS	3	0	0	1	3
SEC 3	23SMCN31	INDUSTRIAL ECONOMICS	3	0	0	1	3
SEC 4	23SMCN41	INTERNSHIP	0	0	3	1	3
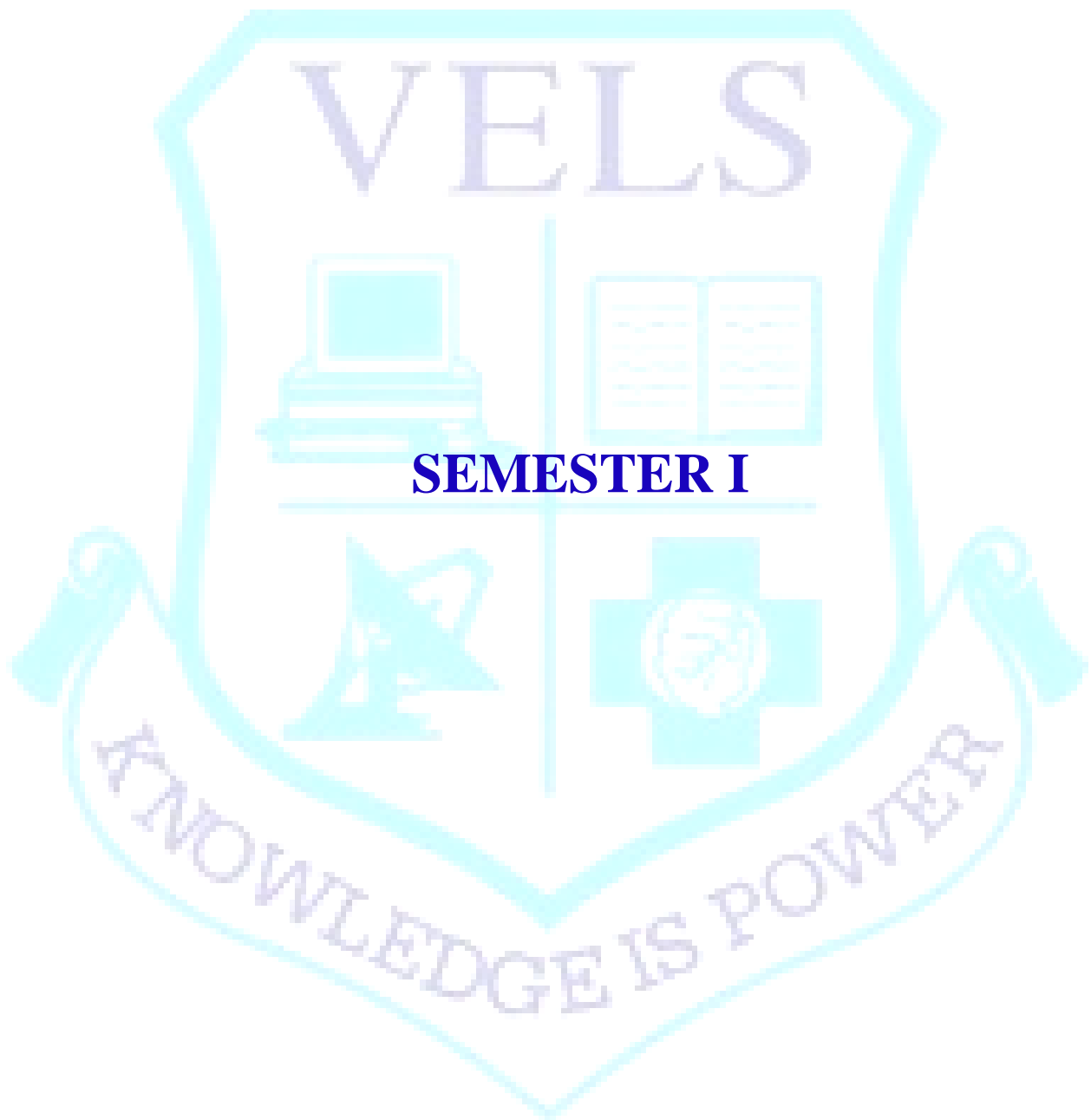
SEMESTER I

L	T	P	O	C
4	0	0	2	4

23CMCN11   ADVANCED MICRO ECONOMIC ANALYSIS -I

Course Objective:

Advanced microeconomic analysis at an advanced level presents formal techniques as well as critical perspectives along with possible alternatives. Topics include product pricing under risk and uncertainties, market structures and extension of oligopoly models.

UNIT- I   INTRODUCTION TO MICROECONOMICS   12

Micro Economics- Cost Minimization and profit Maximisation - Constrained Maximization Envelope theorem – Concavity and quasi-concavity -Homogeneous and homothetic functions - Principles of economic modelling

UNIT-II CONSUMER BEHAVIOUR   12

Utility Analysis of Demand - Theory of Demand - The Revealed Preference Theory - Income Substitution Effects - The Slutsky theorem; Compensated demand curves.

UNIT-III THEORIES OF PRODUCTION AND COST   12

Theory of Production: Stages of production function; Returns to factor proportions - Return to scale; Elasticity of substitution; Technical progress and production function - Cost and Revenue Analysis (traditional and modern theories of cost) - Equilibrium of the firm-marginal analysis - Optimum factor combination and product combination

UNIT – IV MARKET STRUCTURES   12

Equilibrium of firm and industry under perfect competition – Monopoly Bilateral monopoly; Discriminating monopoly and Monopolistic competition; Excess capacity and imperfect competition - Pricing and output behaviour under oligopoly: Collusive and non-collusive models: Extensions of Oligopoly Models

UNIT– V OLIGOPOLY MODELS   12

Baumol's Model - Marris and Williamson's Model - Behavioural theory of the Firm - Cyert and March - Full cost pricing principle - Limit pricing principle -Bains, Modigliani

and Bhagawati

Total: 60 Hours

Course Outcome:

CO1 It will enable the students better to undertake the tasks of critique of existing theory and construction of alternatives.

CO2 It provides exposure to alternative approaches and to critical perspectives in microeconomics.

CO3 To explore the competitive market conditions and theories relating to it.

CO4 To acquaint the students with the knowledge of micro economic theories and their practical applications

CO5 To practically apply the knowledge gained to solve the dynamic business situations

Books for Reference

1. Henderson and Quandt (1980) Microeconomic Theory, **McGraw-Hill Education Publications**
2. Koutsoyiannis, A (1979), Modern Microeconomics, Palgrave Macmillan Publishers
3. Layard, P.R.G. and A W. Walters (1978) Microeconomic Theory. McGraw Hill, New York.
4. MasCollel, A. Whinston M.D. and Green J.R. (2012) Microeconomic Theory, Oxford University Press, India
5. Sen, A. (1999) Microeconomics; Theory and Applications, Oxford University Press, New Delhi.
6. Varian, H (2009) Microeconomic Analysis, 3rd edition Viva Books Private Limited

Web Links

1. Lecture 1, The Queen of Social Sciences:https://www.youtube.com/playlist?list=PLmtuEaMvhDZbgLy0on9VQAVNajp1-5-U3
2. Lecture 2, Consumers: The Samuelsonian Program:https://www.youtube.com/playlist?list=PLmtuEaMvhDZZsehVGMa_Hqk4GaPOKTfse
3. Lecture 3, Consumers, Demand:https://www.youtube.com/playlist?list=PLmtuEaMvhDZbMICKH3OdQYS_Pams81xEu
4. Lecture 4, The Theory of the Firm:
5. https://www.youtube.com/playlist?list=PLmtuEaMvhDZaC-J9RQv6cS5uOOL4Mgt
6. Lecture 5, Risk and Uncertainty:

23CMCN12   **PUBLIC ECONOMICS – I**

L	T	P	O	C
4	0	0	2	4

Course Objective

       The objective of this course is to introduce specific role of the state in economic development.

UNIT-1: INTRODUCTION   12

Meaning and Definition of Public finance - Scope of Public Finance- Similarities and Dissimilarities of Public and Private Finance - Market Failure-Causes of Market Failure - Spill Over Benefit and Spill Over Cost - Role of government in Economic Activity.

UNIT 2: INTER- SECTOR ALLOCATION AND PUBLIC CHOICES   12

Private & Public Mechanism for Allocating Resources - Types of Goods and Their Characteristics -Private, Public and Merit Goods - Principle of Maximum Social Advantage - The Medium Voter Theorem - Arrow's Impossibility Theorem.

UNIT -3: THEORIES OF PUBLIC EXPENDITURE   12

Meaning of Public Expenditure- Classification of Public Expenditure - Causes of Increase in Public Expenditure- Importance of Public Expenditure - Canons of Public Expenditure- Wagner's law of Public Expenditure - Wiseman & Peacock Hypothesis on Public Expenditure. -Prof. Samuelson's Pure Theory of Public Expenditure - Trends of Public Expenditure in India.

UNIT-4 PUBLIC REVENUE AND THEORIES OF TAXATION   12

Meaning and Definition of Public Revenue - Sources of Public Revenue - classification of Public Revenue - Meaning and definition of Tax - Characteristics of Tax - Objectives and effects of taxation.

UNIT-5 DIRECT AND INDIRECT TAXES   12

Characteristics of Good tax system - Direct Tax-its meaning and merits and demerits of direct tax - Indirect Tax-its meaning and merits and demerits of indirect tax - Laffer Curve - GST- -meaning and history of GST- types of GST in India.

Total Hours: 60 Hours

Course Outcome

CO1 Equip the knowledge of fiscal institutions with a careful analysis of the issues, which underline budgetary policies in general, and Indian experience in particular.

CO2 To analyse the role of the Government in the context of fiscal behaviour.

CO3 To understand the basic problems of use of resources, distribution of income etc.

CO4 To apply the studied policies and theories to the economic policy making

CO5 To equip the students with the knowledge of the tax and tax policies.

Books for Reference

1. Buchanan J.M. (1970) The Public Finances, Richard D. Irwin, Home Wood.
2. Goode R (1986) Govt. finance in Developing Countries, Tata McGraw Hill New Delhi.
3. Houghton J.M. (1970) The Public Finance selected Readings, Penguin, and Harmondsworh.
4. Jha, R. (1998) Modern Public Economics, Routledge, London.
5. Menutt P. (1996) The Economics of Public Choice Edward Elgar, U.K.
6. Musgrave R.A. (1956) The Theory of Public Finance, McGraw Hill K/akhuse, Tokyo.
7. Musgrave R.A. and P.B. Musgrave (1976) Public Finance in Theory and Practice, Macgraw Hill, Kogukhusa, Tokyo.
8. Shoup,C.S. (1970) Pubic finance, Aldine Chicago.
9. Shome P. (Ed) (1995) Tax Policy Hand Book Tax Division, Fiscal Affairs Department, International Monetary Fund Washington, D.C.
10. Auerbach, A.J. and M Feldstein (Eds) (1985), Handbook of Public Economics, Vol-I, N/th Holland, Amsterdam.
11. Bhatia, H.L., (2003), Public Finance, Vikas Publishing House Pvt. Ltd., New Delhi

23CMCN13   **INDIAN ECONOMY- I**

L	T	P	O	C
4	0	0	2	4

Course Objective

This subject introduces lays solid foundation to the general understanding of Indian economy.

UNIT-I: NATIONAL INCOME   12

Official estimates: National Accounts Statistics - Growth and Structural Change - Sectoral Composition - Features of High Growth Regime - Changes in the Methodology of National Income Measurement

UNIT-II: AGRICULTURE   12

Technologies and Institutions; Land Relations and Land Reforms - Rural Credit; Modern Farm Inputs and Marketing— Price Policy and Subsidies - Commercialisation and Diversification; Agriculture and WTO Food Processing, Subsidies, Agricultural Prices and Public Distribution System - Impact of Public Expenditure on Agricultural Growth.

UNIT -III: INDUSTRY   12

Strategy of Industrial Development— Industrial Policy Reform - Reservation Policy Relating to Small Scale Industries - Sources of Industrial Finances - Bank, Share Market, Insurance Companies, Pension Funds, Non-Banking Sources and Foreign Direct Investment - Role of Foreign Capital for Direct Investment and Portfolio Investment - Growth of the tertiary sector -Public Sector Reform, Privatisation and Disinvestment

UNIT-IV   PLANNING   12

From Central Planning to Indicative Planning - Relation between Planning and Markets for Growth - Alternative Development Strategies - Goal of Self-Reliance Based on Import Substitution and Protection - Stabilisation and structural adjustment packages - fiscal reforms, financial sector reforms and trade reforms - Niti Aayog and Economic Planning – Differences between Planning Commission and Niti Aayog

UNIT-V LABOUR AND EMPLOYMENT   12

Concepts and Measurement of Employment - Trends in Unemployment and Underemployment - Different NSS Rounds on Employment and Unemployment - Urban Labour Market and Informal Sector Employment

and Poverty; Strategies for Employment Generation - Social Issues Relating to Labour - Child Labour; Rural Employment Guarantee Scheme–MGNAREGA.

Course Outcome

CO1 It will enable the students better to undertake the tasks of critique of existing theory and construction of alternatives.

CO2 It provides exposure to alternative approaches and to critical perspectives in economy

CO3 The course acquaints the students with the knowledge of various sector of the economy

CO4 it enables the students to understand the economic planning and policies

CO5 The course describes the labour policies and employment trends in the economy

Books for Reference

1. A.N. Agarwal: Indian Economy, Problems of Development and Planning, New Age.
2. Anne O Krugger: Economic Policy Reforms and the Indian Economy, OUP
3. D Nayyar and A Bhaduri: Intelligent Person's Guide to Liberalisation, Penguine.
4. D Nayyar: Liberalisation and Development, OUP
5. D.Mazumdar and S Sarkar: Globalisation, Labour Markets and Inequality in India, Routeledge.
6. Francine R Frankel: India's Political Economy, 1947-2004, 2nd Edition. OUP
7. Government of India: Economic Survey (latest issue)
8. J Dreze and A Sen: India, Development and participation, OUP
9. Mishra and Puri: Indian Economy, Himalaya.
10. NCEUS: Report on Conditions of Work and Promotion of Livelihood in Unorganised Sector.
11. Planning Commission: Eleventh Five Year Plan, Vol I, II and III, Academic Foundation.
12. R Dutta and K P M Sundaram: Indian Economy, S Chand

23CMCN14   MANAGERIAL ECONOMICS

L	T	P	O	C
4	0	0	2	4

Course Objective

This subject helps to manage business by taking optimal decisions by the application of managerial theories.

UNIT-1: INTRODUCTION   12

Managerial Economics -Role and Significance - Contribution of Economics to Managerial Functions - The Scope of Managerial Economics - Objectives of Business Firms: Profit Maximisation-Revenue Maximisation- Entry Prevention and Risk Avoidance - Decision Rules: Opportunity Cost - Marginal Principle, Incremental Principle -The Equi-Marginal Principle.

UNIT-II: DEMAND FORECASTING   12

Purpose of Forecasting Demand - Scope of Demand Forecasting - Methods of Demand Forecasting - Survey Methods - Statistical Methods - Case Studies of Demand Forecasting

UNIT -III: PRICING PRACTICES AND STRATEGIES   12

Cost Oriented Pricing: Cost-Plus Pricing Marginal Cost Pricing - Competition Oriented Pricing- Going Rate Pricing - Multiple Product Pricing and Pricing in Lifecycle of a Product - Pricing in Relation to Established Products - Transfer Pricing- Competitive Bidding of Price- Peak Load Pricing

UNIT-IV   BREAK-EVEN ANALYSIS- PLANNING FOR PROFIT   12

Break-even Analysis –Illustration - Linear Cost and Revenue Function- Non-Linear Cost and Revenue Functions - Contribution Analysis, Profit-Volume Ratio and Safety Margin - Managerial Uses of Break-Even Analysis

UNIT-V CAPITAL BUDGETING   12

Meaning and importance of capital budgeting - Pre-Requisites of Capital Budgeting - benefit and cost analysis - Determining the Optimum Level of Capital - Investment Decisions Under Certainty- Pay-back Period Method, Net Present Value Method, Internal Rate of Return Method - Sources and Cost of Capital

Total Hours: 60 Hours

Course Outcome

CO1 It will enable the students better to undertake the tasks of managing business by pricing of the product, input procurement and managerial decision making.

CO2 It provides exposure to various approaches to business management.

CO3 To examine the profit position of the firm through Break even analysis

CO4 To Critically evaluate the business practices existing in the market

CO5 To equip the students with the knowledge of capital budgeting in business planning.

Books for Reference

1. David Besanko and Ronald R. Braeutigam. Microeconomics: An Integrated Approach. John Wiley & Sons, Inc., New York, USA, 2001.
2. Geetika, Ghosh & Choudhury, Managerial Economics, Tata McGraw Hill, New Delhi, 2011
3. Gupta G.S., Managerial Economics, Tata Mcgraw-Hill, New Delhi.
4. Michael R. Baye. Managerial Economics and Business Strategy. McGraw-Hill, International edition, 5th edition, 2006.
5. Moyer &Harris, Managerial Economics, Cengage Learning, New Delhi, 2005
6. W. Bruce Allen, Neil A. Doherty, Keith Weigelt and Edwin Masfield. Managerial Economics: Theory, Applications, and Cases. W.W. Norton & Company, Ltd., 6th edition, 2005.
7. Yogesh Maheswari, Managerial Economics, Phi Learning, New Delhi, 2005

   WEB SOURCES:

   1. https://www.cheggindia.com/career-guidance/managerial-economics-principals-types-and-scop e/

   2. https://theinvestorsbook.com/managerial-economics.html

   3. https://www.analyticssteps.com/blogs/what-managerial-economics-definition-types-nature-pr inciples-scope

23DMCN11   **STATISTICAL METHODS**

L	T	P	O	C
4	0	0	2	4

Course Objective

The main aim of this subject is to develop the student's ability to deal with numerical and quantitative issues in business and to enable the use of statistical, graphical and algebraic techniques wherever relevant. Moreover, learning of this subject helps a proper understanding of Statistical applications in Economics and Management.

UNIT-1: INTRODUCTION   12

Data, Methods of Collection and Presentation of Data - Basic concepts: population, sample, sampling vs. population, variable, parameter, primary and secondary data - Techniques of data collection - Sampling: Random and Non-Random Sampling; Simple Random; Stratified Random, Multi-stage Sampling, Quota Sampling, Cluster Sampling; Judgement Sampling - Frequency Distribution, Cumulative Frequency, Tabular, Graphic and diagrammatic representation of data.

UNIT-II: MEASURES OF CENTRAL TENDENCY   12

Measures of central tendency: Mean, Median, Mode, Geometric mean and Harmonic mean - Measures of dispersion; Range, Quartile deviation, Mean Deviation, Standard Deviation - Coefficient of Variation - Skewness and Kurtosis - Measures of Central Tendency Vs. Measures of Dispersion.

UNIT -III: CORRELATION AND REGRESSION ANALYSIS   12

Correlation: Co-efficient of correlation – Karl Pearson and Rank Correlation - Partial and Multiple Correlation Analysis - Regression analysis - Estimation of regression line in a bivariate distribution - Least squares methods, interpretation of regression coefficients.

UNIT-IV TIME SERIES ANALYSIS AND INDEX NUMBERS   12

Time series analysis – Concept and Components - Determination of Regular Trend and Seasonal Indices - Index Numbers – Concept, Price Relative, Quantity Relative, Value Relative - Laspeyer's, Paasche's and Fisher's Index Numbers - Family budget method; Problems in the construction and limitations of index numbers, Tests for ideal index numbers.

UNIT-V STATISTICAL INFERENCE AND HYPOTHESIS TESTING 12

Statistical Inferences and Hypothesis Testing - Concept of an estimator; Desirable properties of an estimator - Hypothesis –Formulation of statistical hypotheses – Null and alternative; goodness of fit - Confidence intervals and level of significance - Hypothesis testing based on Z, t, x2 (Chi-square), F test; Type 1 and Type 2 errors.

Total Hours: 60 Hours

Course Outcomes

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

CO 1 Describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis

CO 2 Critically evaluate the underlying assumptions of analysis tools

CO 3 Understand and critically discuss the issues surrounding sampling and significance

CO 4 Discuss critically the uses and limitations of statistical analysis

CO 5 Solve a range of problems using the techniques covered

Books for Reference

1. Goon A.M., Gupta M.K. and Dasgupta B. (2002): Fundamentals of Statistics, Vol. I& II, 8th Edn. The World Press, Kolkata.
2. Gupta.S.C.(1993), Fundamentals of Applied Statistics. Chand & Sons, New Delhi.
3. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statisticswith Applications, (7th Edn.), Pearson Education, Asia.
4. Mood, A.M. Graybill, F.A. and Boes, D.C. (2007): Introduction to the Theory ofStatistics, 3rd Edn., (Reprint), Tata McGraw-Hill Pub. Co. Ltd.
5. Nagar A.L. and R.K.Das (1993), Basic Statistics, Oxford University Press, New Delhi.Publisher, New Delhi.
6. Speigal,.M.R (1992), Theory and Problems of Statistics, Mc Graw Hill Books Co., London.
7. Veerachamy.R (2002), Quantitative Methods for Economists, New Age International.

23SMCN11   **BUSINESS COMMUNICATION**

L	T	P	O	C
3	0	0	2	3

Course Objective:

- To study the communication skills
- To apply it in practical business situations, written exercises & e-mails and

letters: Re-writing and re-framing of sentences are being delivered.

UNIT I   INTRODUCTION   9

Fundamentals of Communication, Business Communication, The Communication Model, communicating in teams, Overcoming the Barriers to Communication. Non-verbal communication, Introducing the 7 Cs of business writing – Candid, Clarity, Complete, Concise, Concrete, Correct and Courteous, writing business messages, The Stages in writing, Pre writing, Writing and Post writing.

UNIT II   REVISING AND CHECKING MESSAGES   9

Revising to improve the content and sentence structure, avoiding redundant phrases and words, Proof-reading to correct grammar, spelling, punctuation, format, and mechanics, Evaluating whether the message achieves its purpose. The Process of Writing E Mails, breaking it Down – The PAIBO Technique, Structuring an E Mail – The 3 T's – Introduction, Body and Conclusion, Effective Subject lines, Salutation and Signing off. Business reports and Proposals, Format, visual aids and contents, Oral Business presentations

UNIT III   ETIQUETTE ANDINTERVIEW   9

Meaning, Body Language, Gesture, Postures, Expressions, Dress code, Etiquette etc.   Public

speaking and Speech composition Technical Speeches and non technical presentation Principles of effective speaking and Presentations. Interview, Exit interview, Appraisal etc.. Importance of Interview, Art of conducting and giving interview Types of Interviews like Placement interview Discipline interview, Appraisal interview, Exit interview etc...

UNIT IV   MEETING AND LETTERS   9

Opening and closing of meeting, Brain storming, e-meeting etc.. Importance of Meeting Procedure of conducting Group Discussions Significance of Brain Storming in Business Decisions, Advantages/Disadvantages of E-Meeting Preparing Agenda and Minutes of the meeting. Inquires, Circulars, Quotations, Orders, Memo, Minutes, Notice etc... Types of Letters : Letter Writing –letters - Business letters. Application for a job / covering letter with bio-data. Attitude. Negotiation skills Social Conversation - Values and ethics - Managing stress.

UNIT V   SOFT SKILLS   9

Principles of group discussion - Purpose of group discussion - Preparation - Skills to be acquired — communication, leadership, problem-solving - Effective participation. Personality Enrichment - Positive attitude - SWOT Analysis - Self-confidence and motivation - Inter-personal skills - Projecting a positive social image Time Management - Goal setting and prioritisation - ABC Analysis—preparing a personal schedule - Short term and long term goals - Implementing goals - Task list organisation Leadership Skills - Setting objectives and taking initiatives - Persuading and negotiating - Team work - Maintaining morale - Inspiring others

TOTAL: 45 HOURS

COURSE OUTCOMES:

At the end of the course, the students will be able to:

CO – 1   : Recall the basics of communication and its process, elements and importance.

CO – 2   : Evaluate the effectiveness of revising, checking and proof reading the messages.

CO – 3   : Discuss the concept of Etiquette and significance of Interviews
CO – 4   : Identify different types of letters to make effective internal and external correspondence
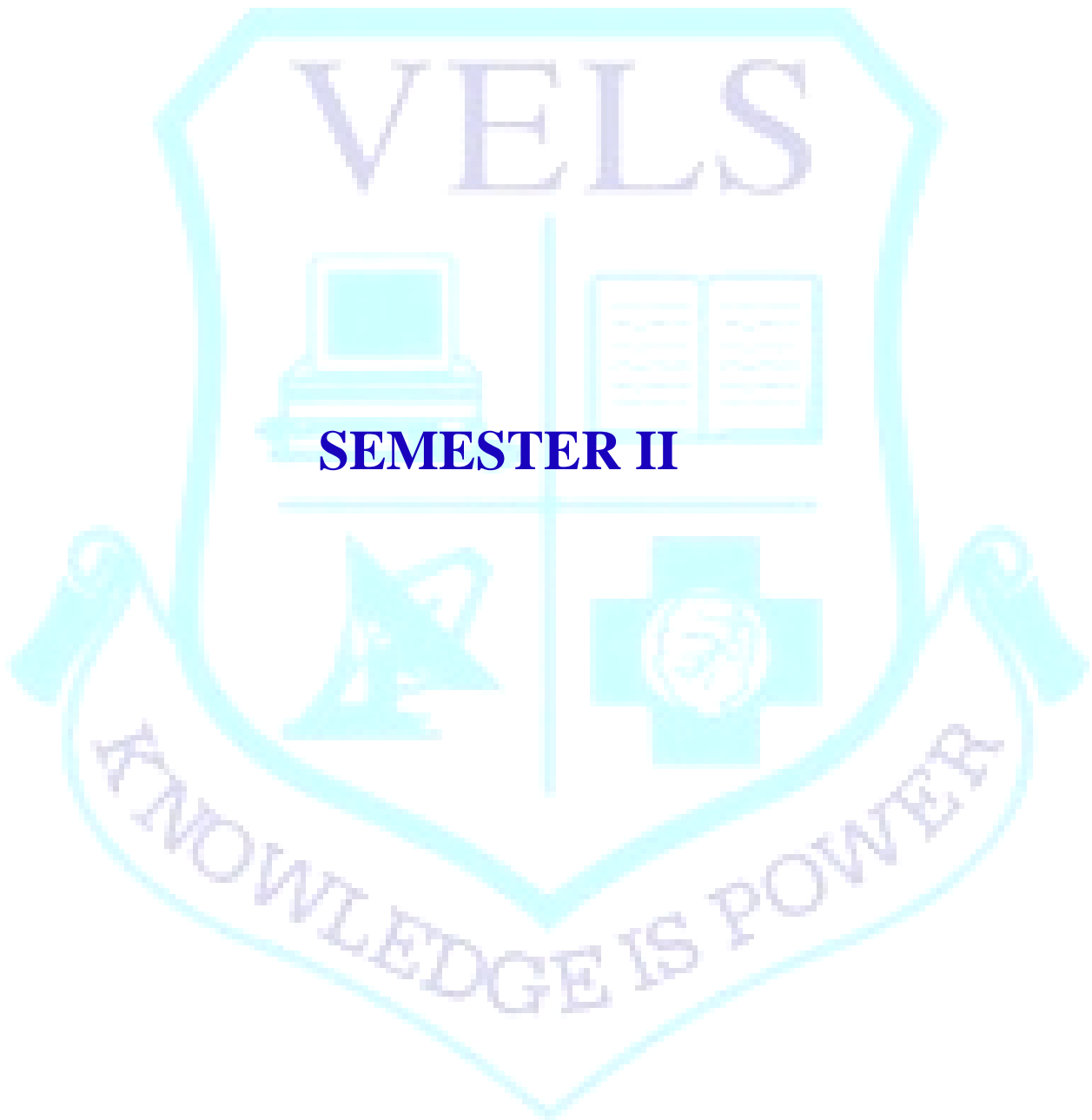CO – 5   : Evaluate the effectiveness of revising and checking the messages.

Books for Reference

1. Sanjay Kumar &Pushpalatha, Communication Skills, Oxford University Press, 2011.

2. Kaul& Asha, Effective Business Communication, PHI 2nd Edition, 2006.

3. Lesikar R.V &Flately M V, Basic Communication Skills for empowering the internet generation, Tata-McGraw Hill, 2009.

4. Sharma R C & Mohan K, Business Correspondence & Report Writing, TMH, 2009.

Web Sources:

1. https://www.softskillsusa.com/what-is-meaning-of-business-communication-skills.php

2. https://www.atctraining.com/soft_skills_definition_of_communication.htm

3. https://www.jobwise.co.uk/the-importance-of-soft-skills-in-business/

SEMESTER II

23CMCN21   **ADVANCED MICRO ECONOMIC ANALYSIS- II**
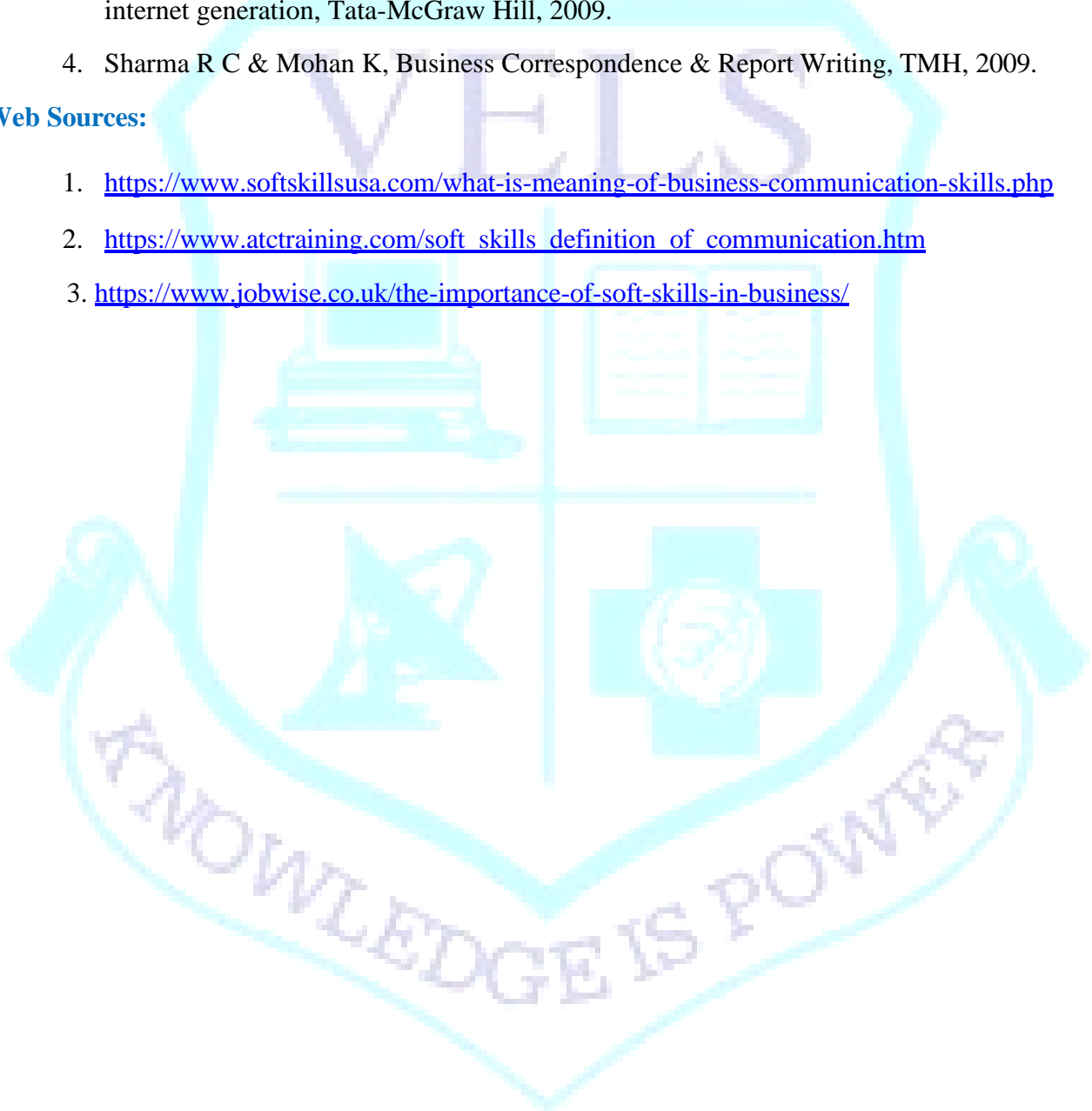
L	T	P	O	C
4	0	0	2	4

Course Objective:

This course covers topics such as choice under uncertainty, game theory and strategic equilibrium, partial and general competitive equilibrium models, welfare Economics, externalities and public goods.

UNIT- I   FACTOR MARKETS   12

Marginal Productivity Theory of Distribution - Demand and supply of inputs: Firm's and Industry's input demand curves - Factor Market Equilibrium- Labour, Land, Capital and Interest - Monopsony and Monopoly in input markets; Unions as monopolists; Bilateral monopoly; Choice of optimal combination of inputs - Adding-Up Problem; Product Exhaustion theorems – Euler's and Clark-Wicksteed-Walras theorems.

UNIT -II: GENERAL EQUILIBRIUM THEORY   12

Walras model- Properties; Problem of existence, uniqueness and stability of equilibrium - Excess demand function approach to general equilibrium analysis; Fixed point theorem and the existence of the solution - Modern approach: Input-output and Linear programming model of general equilibrium - Determination of output and price (only Static open models); Notion of equilibrium in economics - Equilibrium vs. anti-equilibrium theory of economic system – Hahn vs Kornai.

UNIT-III: WELFARE ECONOMICS   12

Growth of GNP and welfare; Criteria of welfare maximization: Cardinalist's criterion, Bentham's Criterion - Pareto optimality criteria; Compensation principle - Social welfare function – Properties and limitations - Theory of second best. Arrow's impossibility theorem - Sen's proof of this theorem; Equity and efficiency

UNIT-IV EXTERNALITIES AND PUBLIC GOODS   12

Externalities and Efficiency Loss - Regulation (Direct Regulation, Taxes/Subsidies, Tradable Permits - Internalization, Property Rights and Coase Theorem) - Common Property Resources - Public Goods and Efficiency - Free Riding Problem

Hidden Characteristics and Adverse Selection - Private and Government Response - Public Goods – Free Rider Problem – Efficient Provision of a Public Good – Voting - Hidden Action and Moral Hazard Problem -   Akerlof's Market for Lemons - Cheap Talk Models, Costless Signals

COURSE OUTCOMES

- Students may understand how the demand and supply of resources like labor and capital work in different markets.

- Students may explore how economies reach a balance where supply meets demand using various models.

- Students may expertise in how to measure and maximize welfare in an economy.

- Students may analyse external factors and public goods affect market efficiency and how they can be managed.

- Students will develop an understanding of how asymmetric information affects market outcomes.

Books for Reference

1. Baumol, W.J. (1985): Economic Theory and Operations Analysis, Prentice Hall.
2. Dobbs, I. (2000): Managerial Economics, OUP, ND.
3. Gibbons, R. (2010) -Game Theory for Applied Economists, Pearson Higher Education &
4. Henderson, J. and R.A. Quandt (1984): Microeconomic Theory, McGraw Hill, Tokyo.
5. Intriligator, M.D. (1971): Mathematical Optimization and Economic Theory, Prentice Hall, EnglewoodCliffs.
6. Jhele G.A. and ReneyP.J.(2006) Advanced Microeconomic Theory, Pearson Education, India.
7. Koutsoyiannis, A. (1980): Microeconomic Theory, MacMillan.
8. Lancaster, K. (1972): Consumer Demand: A New Approach, CUP, NY.
9. Layard, P.R.G. and A.A. Walters (1978): Microeconomic Theory, McGraw Hill, NY.
10. Maddala, G.S. and E. Miller (1989): Micro Economics- Theory and Applications, McGraw, New Delhi.

Web links

1. https://www.youtube.com/playlist?list=PLmtuEaMvhDZYaxCLXxK1UqYAV4_ C5Bw5CLecture 7, Bargaining, Norms, Institutions:

2. https://www.youtube.com/playlist?list=PLmtuEaMvhDZY3M47cVW5VRH6HO PRVBJGqLecture 8, Markets: 'Partial Equilibrium': Analysis of Individual Markets:
3. https://www.youtube.com/playlist?list=PLmtuEaMvhDZaZ9UkuQh4DoAvE7F CffyLnLecture 9, Markets: 'Partial Equilibrium': Externalities and Public Goods:
4. https://www.youtube.com/playlist?list=PLmtuEaMvhDZZZTjp7lanWeGUDu6_ HEoicLecture 10, Social Welfare and Judgment:
5. https://www.youtube.com/playlist?list=PLmtuEaMvhDZZ2tCkK9D3LJqAj4jyxFXB 5Lecture 11, General Equilibrium Theory:
6. https://www.youtube.com/playlist?list=PLmtuEaMvhDZbjczrZN77wc7CNyNB 39HEGLecture 12, General Equilibrium Theory: Possible Extensions and Applications:
7. https://www.youtube.com/playlist?list=PLmtuEaMvhDZZTT30dcKM0TwWGb Q0hvukt

23CMCN22 **PUBLIC ECONOMICS-II**
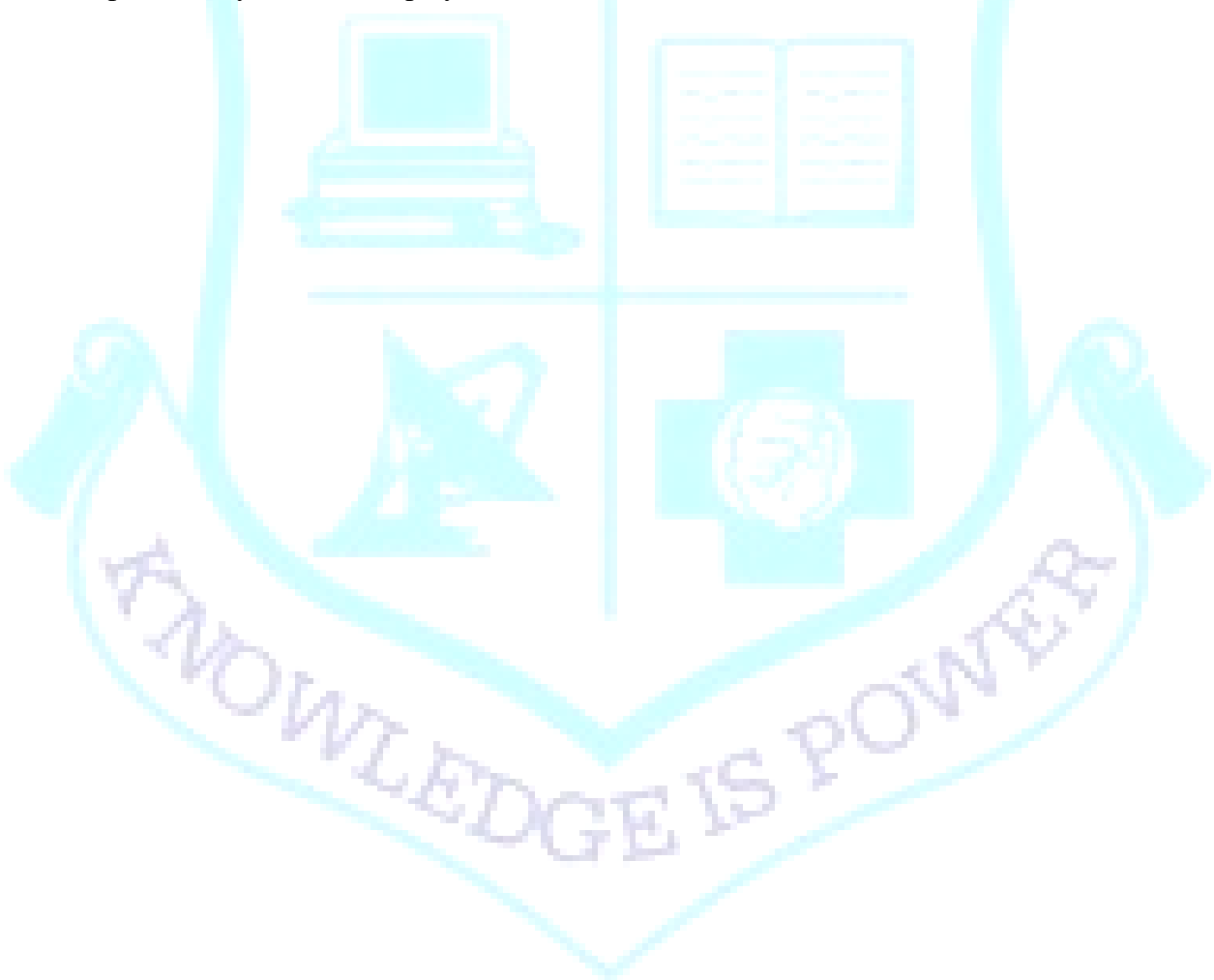
L	T	P	O	C
4	0	0	2	4

Course Objective

Public Economics Paper-II analyses the publicdebt, fiscal policy, Budget, fiscal federalism and Indian federal finance. Further the distribution of income and wealth etc. require political processes for their solution in a manner combines individual freedom and justice.

UNIT-1 PUBLIC DEBT   12

Meaning and Definition Public debt - Public Debt Vs. Private Debt- Difference between Public debt and private debt - Classification of Public debt - Sources of Public debt —Effectsof Public debt - Burden of Public debt – Trends of Public debt in India.

UNIT-2 FISCAL POLICY   12

Meaning and definition of Fiscal policy - Objectives of Fiscal policy Instruments of Fiscal policy - Role of fiscal policy in controlling inflation - fiscal policy for full employment – Limitations of fiscal policy - Fiscal reforms in India after Economic Reforms

UNIT- 3 BUDGET   12

Concept of budget - Kinds of Budgets - Components of the Government Budget - Zero-base budgeting - different concepts of budget deficits Latest Budgets of the Union Government in India.

UNIT- 4 FISCAL FEDERALISM   12

Meaning of Federal Finance - Principles of Federal Finance - Centre & StateFinancial relations in India - Imbalance between fiscal Needs and Capacity - Fiscal Needs of Panchayat Raj Institutions.

UNIT-5 INDIAN FEDERAL FINANCE   12

Finance Commission - Constitution and Functions of Finance commission - Finance Commission and States - Finance Commission- Centra and State Governments and Local Bodies - Recommendation of latest Finance commissions.

Course Outcome

- Students will understand the concepts of public debt, fiscal policy, and budgeting, and their roles in the Indian economy.
- Students will learn about fiscal federalism in India, including the financial relationships between the central and state governments and the fiscal needs of local institutions.
- Students will explore the different sources and classifications of public debt and analyze its effects and trends in India.
- Students will examine the various types of government budgets and understand the concept of
  budget deficits in the context of India's latest Union Budgets.
- Students will learn about the principles of federal finance and assess the fiscal imbalances and needs at different levels of government in India, including Panchayat Raj Institutions.

Books for Reference

1. AtkisonA.B.and J.E. Stiglitz: (1980) Reading on Public Economics, Tara McGraw Hill New York.
2. Auerbach A. Jand M. Feldstem (Ed)(1995) Hand book of Public Economics, Vol. 1 N/th Holland,Amsterdam.
3. Goode R. (1986) Govt. finance in Developing Countries, Tata McGraw Hill, New Delhi.
4. Houghton J.M. (1970) The Public Finance selectedReadings,Penguin, Hairmonds w/th.
5. Jha, R. (1998) Modern Public Economics Routledge, London.
6. Menutt P. (1996) The Theory of Public Choice Edward Elegar, U.K.
7. Musgrave R.A. (1996) The Theory of Public Finance, McGraw Hill, Jogukhusa, Tokyo.
8. Musgrave R.A. and P.B. Musgrave (1976) Public Finance in Theory and Practice, McGraw Hill,Jogukhusa, Tokyo.
9. Some P: (Ed) (1995) Tax Policy Hand Book Division, Fiscal Affairs Department, International MonetaryFund, Washington, D.C.

Web Links

- https://www.mooc-list.com/tags/fiscal-economics
- https://www.google.com/search?q=www.+moocs+list+fiscal+economics&oq=www.+moocs+list+fiscal+ec&aqs=chrome.3.69i57j33i10i160l4.46155j0j4&sourceid=chrome&ie=UTF-8
- https://www.google.com/search?q=www.edx.org%2Fcourse%2Ffiscal+economics&oq=www.edx.org%2Fcourse%2Ffiscal+economics&aqs=chrome..69i58j69i57.51244j0j9&sourceid=chrome&ie=UTF-8

23CMCN23   **INDIAN ECONOMY - II**

L	T	P	O	C
4	0	0	2	4

Course Objective:

It will enable the students better to understand the current scenario of Indian Economy. It provides exposure to alternative approaches to find alternatives in different facets of macroeconomics.

UNIT-1: INTRODUCTION   12

Economic Development Since Independence - Features of Indian Economy on the Eve of Independence - Growth and Development Under Different Policy Regimes - Performance Assessment—Sustainability and Regional Contrasts - Structural Change, Savings and Investment.

UNIT-II: ECONOMIC CRISES AND ECONOMIC REFORMS   12

Dilemma of Development: Agriculture Vs Industry - Food Crisis - Green Revolution and Government Intervention - PDS and Priority Sector Lending - Poverty Alleviation- Public Intervention for Poverty Alleviation - Economic Crises during Eighties: External Debt Crisis, Fiscal Imbalance, Balance of Payments Problems and Inflation - New Economic Policy and Continual Reform Initiatives-Global Financial Meltdown and India - Covid-19 Pandemic and Economic Recession Measures for Economic Revival

UNIT-III DEVELOPMENT EXPERIENCE UNDER REFORMS   12

External sector, Fiscal and Monetary sectors: Balance of payments—trend and composition - Currency Convertibility and Exchange Rate Movements - Exim Policy and WTO Related Issues - Portfolio Investment and Foreign Direct Investment - Growth and Social Sector Developments, Poverty, Inequality and Unemployment

UNIT-IVPOPULATION AND HUMAN DEVELOPMENT   12

Demographic trends and issues- Demographic Dividend - Education- Primary, Secondary and Tertiary Levels- educational Inequalities according to sex and region - Health and Malnutrition - Sustainable Development Goals- Challenges for India - Physical Quality Life Index (PQLI), Human Development Index (HDI), GEM -Human Development Experience

UNIT-VCONTEMPORARY DEVELOPMENT CHALLENGES   12

Need for pushing reforms in Fiscal and monetary front - Tax reforms and measures; pension reforms - Trade liberalization and economic cooperation Reviving agricultural and economic growth - Public Sector Reforms, Labour Laws and Labour Markets, and Infrastructure Needs.

COURSE OUTCOMES

- Students may understand how the demand and supply of resources like labor and capital work in different markets.

- Students may explore how economies reach a balance where supply meets demand using various models.

- Students may expertise in how to measure and maximize welfare in an economy.

- Students may analyse external factors and public goods affect market efficiency and how they can be managed.

- Students will develop an understanding of how asymmetric information affects market outcomes.

Books for Reference

- Bhagwati, J., & Desai, P. (2004). *India planning for industrialization*. Oxford University Press.
- Jalan, B. (1998). *India's economic crisis: The way ahead*. Oxford University Press.
- Rangarajan, C. (2000). *Indian economy: Essays on money and finance*. UBS Publishers' Distributors Ltd.
- Chakraborty, S. (2001). *Development planning: The Indian experience*. Oxford University Press.
- Kapila, U. (Ed.). (1999). *Indian economy since independence* (Vol. X). Academic Foundation.

Web links

- Ministry of Finance
- Department of Economic Affairs
- Planning Commission
- https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=20019
- https://nptel.ac.in/courses/109/104/109104184/

23CMCN24   **INTERNATIONAL ECONOMICS**

L	T	P	O	C
4	0	0	2	4

Course Objectives

The International Economics paper covers theories of international trade, gains from trade and its distribution; theory of interventions, exchange rate, trade Units and forms of international trade cooperation.

UNIT-1: THEORIES OF INTERNATIONAL TRADE   12

Classical Theories- Adam Smith and Ricardo - Neo-Classical Theories - Heberler's Opportunity Cost Approaches - Heckscher and Ohlin Model -Leontief Paradox - Factor Price Equalization Theorem.

UNIT-II: GAINS FROM TRADE   12

Measurement - Terms of Trade – Income and Factorial Terms of Trade - Hypothesis of Secular deterioration of terms of trade - Immeserising Growth - Trade as an Engine of Growth.

UNIT -III: THEORY OF INTERVENTIONS   12

Tariff Issues, Quotas and non-tariff barriers - Nominal, Effective and Optimum Rates of Tariffs - Balance of Payments: Causes for Disequilibrium in BOP and Measures to Correct - Expenditure Reducing and Switching Policies - Marshall and Lerner's conditions.

UNIT-IV FOREIGN EXCHANGE RATE AND REGIONAL BLOCS   12

Foreign Exchange rate determination under the Gold Standard - Fixed and Flexible exchange rate, Purchasing Power Parity theory - India's foreign exchange reserves - Convertibility of Rupee, FEMA - Importance of International Trade for a Developing economy.

UNIT-V FORMS OF ECONOMIC CO-OPERATION   12

Union, Regionalism (EU, NAFTA) - Multilateralism and WTO - Foreign Capital and Developing Countries - Problems of India's International Debt - Export Promotion Strategies and EXIM Policies - Inter- Regional Trade, SAARC/ SAPA and ASEAN Regions, Problems and prospects of Customs.

Course Outcomes

CO1 Students may understand the key classical and modern theories of international trade, including models like Heckscher-Ohlin and concepts like the Leontief Paradox.

CO2 Students able to measure gains from trade and analyze concepts like terms of trade and trade as an engine of growth.

CO3 Students may explore the impact of trade policies such as tariffs, quotas, and non-tariff barriers, and understand the factors affecting the balance of payments.

CO4 Students may analyse foreign exchange rates are determined, including different exchange rate systems, and the significance of India's foreign exchange reserves.

CO5 Students may examine various forms of economic cooperation, including regional blocs like the EU and NAFTA, and explore strategies for export promotion and dealing with international debt.

Books for Reference

1. Bhagavati, J (Ed): International Trade Selected Readings, Cambridge University Press, Massachusetts.
2. Brahmananda, P.R.: The IMF Loan and India's Economic Future, Himalaya
3. Dunn, RM & JM Mutti : International Economics, Routledge, London, 2000
4. Kindle Berger: International Economics, R.D Irwin, Home Wood
5. Krugman, PR &M.Obstfeld : International Economics Theory & Policy, Glenview, Foresman
6. Man Mohan Singh: India's Export Trends and the prospects for self-sustained Growth, Oxford University Press, New Delhi
7. Mundell, R: International Economics, the Macmillan Company Ltd., New York.

Web Links

1. https://resources.saylor.org/wwwresources/archived/site/textbooks/International%20Economics%20-%20Theory%20and%20Policy.pdf
2. https://www.e-booksdirectory.com/details.php?ebook=2115

23DMCN21   **MATHEMATICAL ECONOMICS**

Course Objectives

L	T	P	O	C
4	0	0	2	4

This subject focuses on the mathematical methods and models that are required to understand current economics and to investigate economic models. Topics may include Fundamentals of Matrices, Differentiation, Linear Programming, and Static and Dynamic Optimisation.

UNIT-1: BASIC MATHEMATICS FOR ECONOMICS   12

Real Number System, Sets and Set Operations - Relations and Functions, Inverse Functions; Solution of Linear Equations in Two Variables - Higher-order Derivatives - Convex and Concave Functions - Multivariable Functions; Types of Production Functions, Homogeneous and Homothetic Functions.

UNIT-II: FUNDAMENTALS OF MATRICES   12

Vectors, Matrices, Determinants – Types and Properties. Solution of Simultaneous Equations Through inversion and Cramer's Rule - Concept of Quadratic Forms – Eigen Roots and Eigen Vectors - Difference Equations – Solution of First order and Second order Difference Equations - Applications in Trade Cycle Models - Applications in Growth Models and Lagged Market Equilibrium Models.

UNIT -III: DIFFERENTIATION   12

Partial Differentiation - Interpretation; Problems of Maxima and Minima in Single and Multivariable Functions - Differentiation-idea of limit meaning and economic interpretations of derivative - Rules of differentiation including logarithms and exponential functions - Unconstrained optimization - single choice variable; global and local - Calculus of multivariable functions, higher order derivatives, constrained optimization with up to 2 equality constraints.

UNIT-IV   LINEAR PROGRAMMING   12

Linear Programming, Game Theory and Input-Output Analysis - Formulation of a Linear Programming Problem, Solution of Linear Programming Through Graphical and Simplex Methods - Formulation of The Dual of a Linear Programme and its Interpretation - Shadow Prices and Their uses - Concept of Duality and Statement of Duality Theorems

UNIT-V STATIC AND DYNAMIC OPTIMIZATION   12

Static Optimization: Review of Classical Constrained Programming and Nonlinear Programming - Comparative Statics, Envelope Theorem - Saddle Point Theorem, Concave and Convex Programming - Optimal Control Theory and Hamiltonian Dynamic Programming - Choice under uncertainty: Risk and portfolio analysis

Books for Reference

1. Chiang, A.C. (1984), Fundamental Methods of Mathematical Economics, 3rd Edition, Mc-Graw Hill.
2. Edward T. "Mathematics for Economists" (Schaum's Outline Series, Tata Mcgraw Hill
3. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press, London.
4. Sydsaeter, Knut, Peter Hammond (2002), Essential Mathematics for Economic Analysis, Prentice Hall.
5. Dixit, A.K. (1990), Optimization in Economic Theory, 2nd Edition, Oxford University Press.
6. Mathur, P. N. and R. Bharadwaj (Eds.) (1967), Economic Analysis in Input-Output Research, Input-Output Research Association of India, Pune.

Course Outcomes

- Students may understand basic mathematical concepts such as real numbers, sets, functions, and solutions of linear equations, and apply them in economic contexts.

- Students may able to perform matrix operations, solve simultaneous equations, and understand the applications of matrices in economic models.

- Students may apply differentiation techniques to solve optimization problems and interpret economic functions involving single and multiple variables.

- Students may demonstrate the ability to formulate and solve linear programming problems, including understanding duality and its economic interpretation.

- Students may explore static and dynamic optimization methods, including classical and nonlinear programming, and understand their applications in economics.
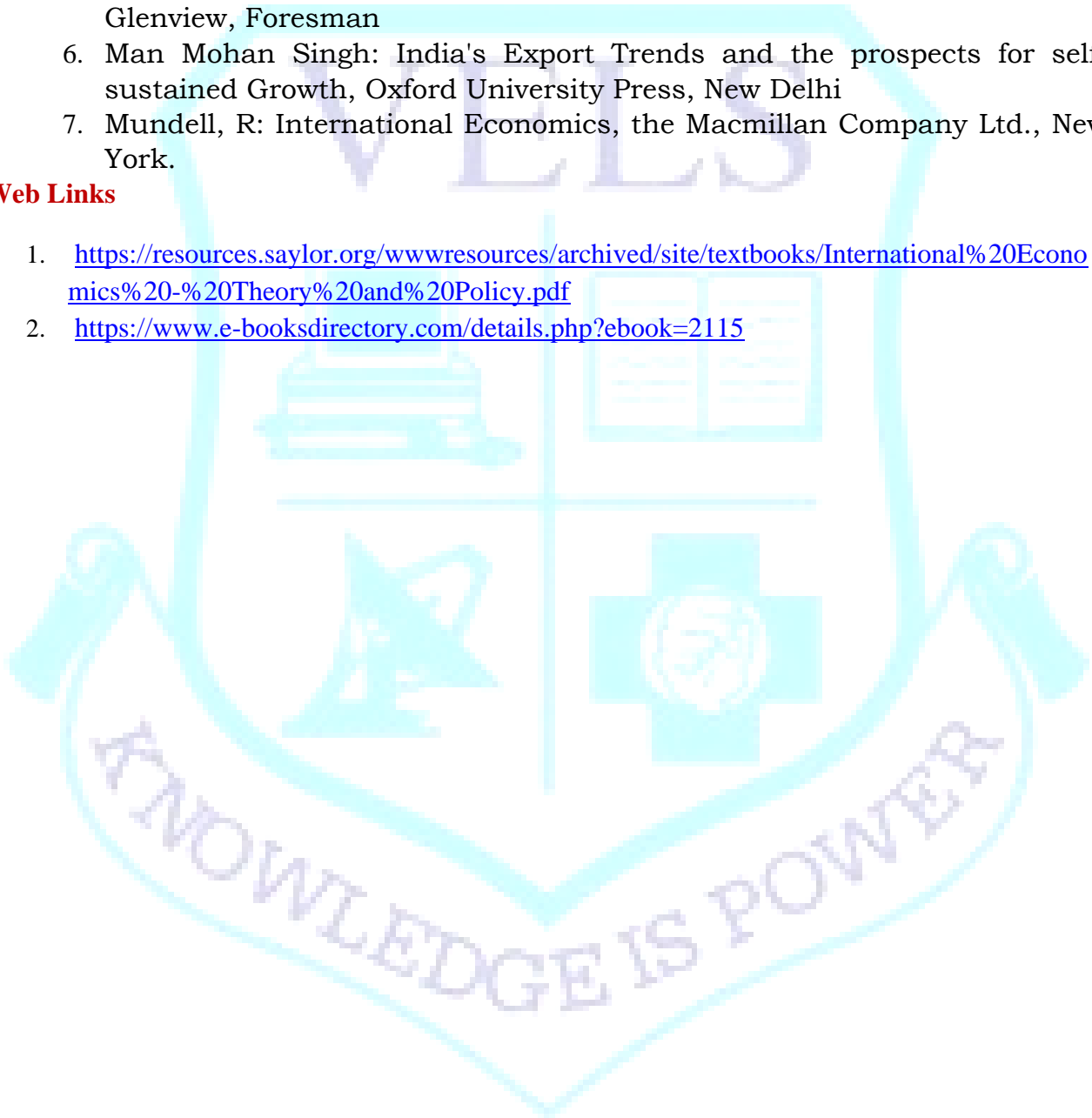
Books for Reference

1. Bhagavati, J (Ed): International Trade Selected Readings, Cambridge University Press, Massachusetts.
2. Brahmananda, P.R.: The IMF Loan and India's Economic Future, Himalaya

3. Dunn, RM & JM Mutti : International Economics, Routledge, London, 2000
4. Kindle Berger: International Economics, R.D Irwin, Home Wood
5. Krugman, PR &M.Obstfeld : International Economics Theory & Policy, Glenview, Foresman
6. Man Mohan Singh: India's Export Trends and the prospects for self-sustained Growth, Oxford University Press, New Delhi
7. Mundell, R: International Economics, the Macmillan Company Ltd., New York.

Web Links

1. https://resources.saylor.org/wwwresources/archived/site/textbooks/International%20Economics%20-%20Theory%20and%20Policy.pdf
2. https://www.e-booksdirectory.com/details.php?ebook=2115

23SMCN21   COMPUTER APPLICATIONS FOR ECONOMISTS

L	T	P	O	C
3	0	0	1	3

Course Objectives

To introduce the essential concepts necessary to make effective use of the computer and to understand what a computer can do, how it works, and how it can be used to create documents using word processing and spreadsheet applications for personal and business use.

UNIT I   INTRODUCTION   9

History of Computer – Definition – Types of Computers – Desktop Computer – Laptop – Functions of Computer – Application and Current Trends for business related problems

UNIT II   HARDWARE &SOFTWARE   9

Hardware System – Types of Hardware: Input, storage and output devices – Internal and External Parts of Hardware – Software – System Software: Operating System (OS) such as Microsoft Windows and Macintosh– Application software – Internet

UNIT III   MICROSOFT WORD   9

Microsoft Word – History, Version – Features of Word Such as File Creation, Formatting, Editing, Paragraph Formatting, Inserting Header and Footer and Page Number, Inserting Tables, Inserting Symbols, Print Review and Printing

UNIT IV   MICROSOFT EXCEL   9

Microsoft Excel – History, Version – Features of Excel Such as File Creation, Formatting, Editing, Organizing the Worksheet, Formulas/Functions, Sorting, Filters, Creating Charts, Print Review and Printing

UNIT V   MICROSOFT POWERPOINT   9

Microsoft PowerPoint – History, Version – Features of PowerPoint Such as File Creation, Slide Creation, Formatting, Editing, Adding Transitions and Animation, Print Review and Printing.

                                   TOTAL: 45 HOURS

COURSE OUTCOMES:

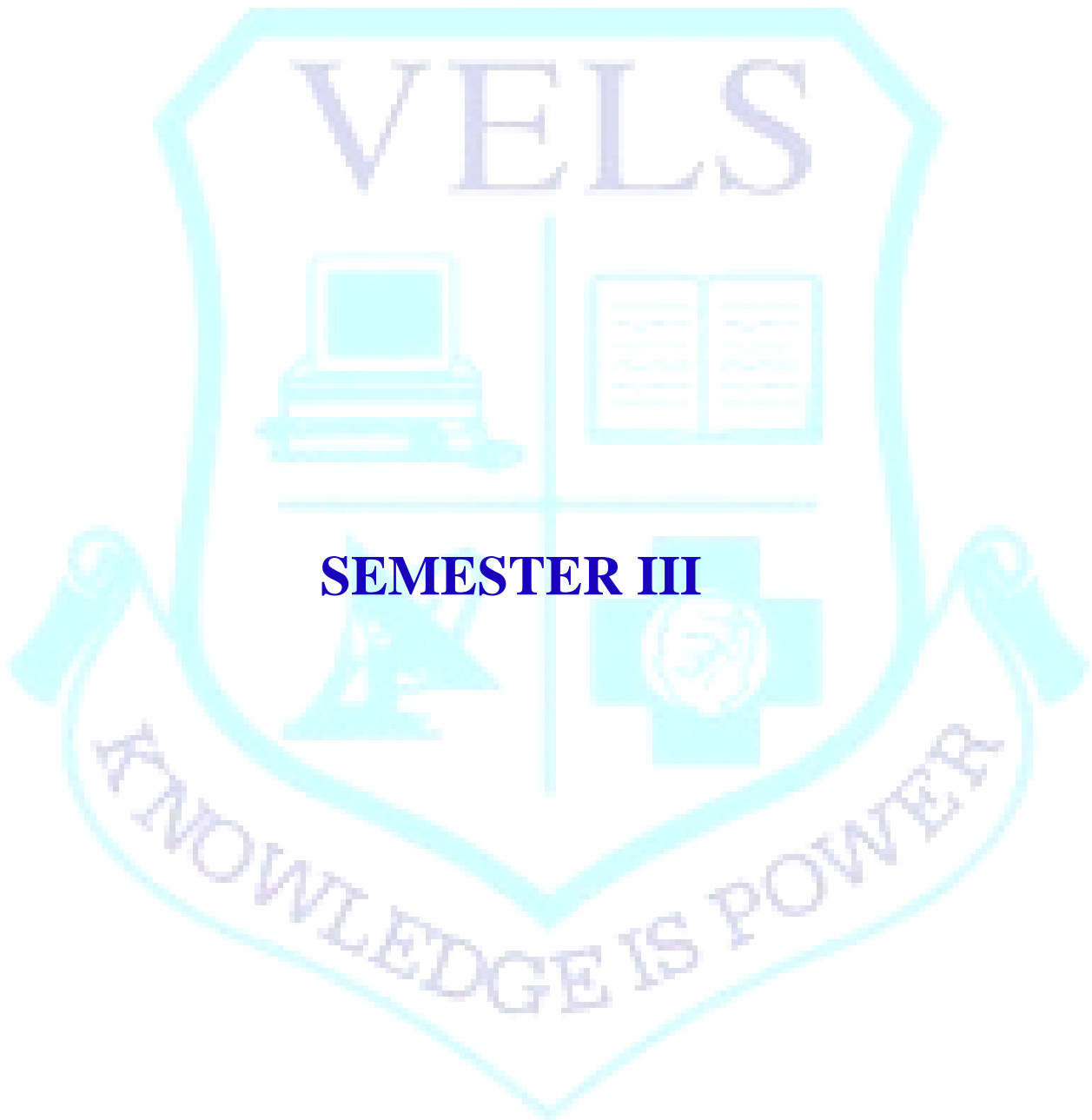At the end of the course, the students will be able to:

CO – 1   : Describe the fundamentals of computer.

CO – 2   : Explain the basics of hardware and software.

CO – 3   : Identify different components of hardware systems.

CO – 4   : Discuss about the word processing using Microsoft Word.

CO – 5   : Demonstrate working with Spreadsheets using Microsoft Excel.

Books for Reference

1. Turban Rainer and Potter – Introduction to Information Technology, John Wiley & Sons, 2005.

2. Richard D Gitlin, Jeremiah F Hayes, Stephen B Weinstein, Data Communications Principles, Springer, 1992

3. William Stallings, Data and Computer Communications, Prentice Hall, 2007

4. Behrouz A. Forouzan, DeAnza College, Data Communications and Networking, McGraw-Hills, 2007

5. N.D.Birrell, M.A. Ould, A Practical Handbook for Software Development, Cambridge University Press, 1988

6. Sanjay Saxena, A first course in computers, Vikas Publishing House Pt. Ltd. 2000

Web Links:

1.   https://mcc.iavalley.edu/academic/computer-science-information-technologies/computer-app lications-business/

2.https://www.oakton.edu/academics/academic_departments/computer_app_business/index.ph p

3.   https://visionarybusinessperson.com/computer-application-in-business/

SEMESTER III

23CMCN31   **MACRO ECONOMICS-I**

L	T	P	O	C
4	0	0	2	4

Course Objectives

The purpose of this course is to help students learn the fundamentals of economics and they can apply these concepts to their lives and to the world in which they live. Therefore, this course gives greater understanding about economic news and issues around the world. It enhances the capability of participants to understand the prevailing economic and business policy in totality.

UNIT-I:NATIONAL INCOME AND ACCOUNTS   12

Concept of National Income and National Product - Different forms of National Income Accounting, Social Accounting, Green National Income Accounting, Input-Output Accounting - Flow of Funds, Balance of Payment – Accounting - Problems of Measurement - Circular flow of Income – Two, Three and Four Sector Economy.

UNIT-II: THEORY OF EMPLYMENT   12

Classical Theory of Employment - Say's Law of Market, Principle of Effective Demand - Keynesian and Pigou Theory of Employment - Comparison of Classical and Keynesian Models - National Income Determination of Keynesian Model - Two, Three and Four Sector Economy.

UNIT -III: CONSUMPTION FUNCTION   12

Keynesian Psychological Law of Consumption - Short Run & long run Consumption Function - Theory of Consumption Function - Absolute Income Hypothesis, Dusenbery's Relative Hypothesis - Life Cycle and Permanent Income Hypothesis

UNIT-IV INVESTMENT FUNCTION   12

Marginal Efficiency of Capital and Investment - Saving and Investment Equality, Multiplier and its working - Accelerator and its working, Super- Multiplier. Supply of Money - Determinants of Money Supply, Measurement of Money supply - Control of Money Supply. High Powered Money, Money Multiplier.

UNIT-V DEMAND FOR MONEY   12

Fisher and Cash Balance (Cambridge) Approach - Fundamental Equation of Keynes - Friedman's reformulation of the quantity theory of money - Post

Keynesian Approach to Demand for Money - Patinkin, Baumol's, JamesTobin - Friedman, and Gurley & Shaw's Approaches.

Books for Reference

1. A. Leijonhufvud, (1968), "On Keynesian Economics and the Economics of Keynes", New York.

2. Advanced Macroeconomics by David Romer, 4th Edition, Mc Graw Hill-Irwin.

3. Barro, Robert J and Herschel I Grossman, "A General Disequilibrium Model of Income and Employment" American Economic Review.

4. Froyen Richard T. "Macroeconomics: Theories and Policies", Sixth Edition, Pearson Education India.

5. John Maynard Keynes (1936), "The General Theory of Employment, Interest and Money",Macmillan, London.

6. Macroeconomic Theory and Policy by William Branson, 3rd Edition, Addison Wesley.

7. Macroeconomics by N Gregory Mankiw, 6th Edition, Worth Publishers.

8. Malinvaud, E. (2006) "Disequilibrium Econometrics", StatisticaNeerlandica, Vol. 60, nr. 2, pp. 171-180.

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23CMCN32   **MONETARY ECONOMICS**

L	T	P	O	C
4	0	0	2	4

Course Objectives

This course introduces monetary theory, to the effects of monetary variables on the macroeconomic system, the role of the Central Bank and the conduct of monetary policy.

UNIT-1: SUPPLY OF MONEY   12

Functions of Money - Determinants of Money Supply - RBI approach to Money Supply - High Powered Money and Money Multiplier - Control of Money Supply.

UNIT-II: DEMAND FOR MONEY   12

Keynes's liquidity preference approach to demand for money - Aggregate demand for money - Post Keynesian Theories of Demand for Money - Tobin and Baumol's Theory of Demand for Money - Friedman's Theory of Demand for Money.

UNIT -III: MONEY MARKET EQUILIBRIUM AND IS-LM MODEL   12

Equilibrium in money market - Equilibrium in product market - Derivation of LM Curve - Derivation of IS Curve - General Equilibrium

UNIT-IV BANKING   12

RBI and its functions - Methods of Credit Control - Reserve Bank of India and Monetary Policy - Objectives and functions of Commercial Banks - Money Market and Role of Commercial Banks – Privatization of Commercial Banks.

UNIT-V MONETARY SECTOR REFORMS IN INDIA   12

Banking Sector Reforms - Chakravarthy Committee Report - Narasimham Committee Report - Insolvency and Bankruptcy Act - NPA's and Privatisation of Public Sector Banks

Course Outcome

CO1 Students may understand the functions of money, determinants of money supply, and how the RBI controls money supply.

CO2 Students may explore various theories of demand for money, including Keynesian, Post-Keynesian, and Friedman's approaches.

CO3 Students may analyse how to derive and interpret the IS and LM curves and analyze equilibrium in the money and product markets.

CO4 Students examines the functions of the RBI and commercial banks, methods of credit control, and the impact of privatization on banking.

CO5 Students may review key monetary sector reforms in India, including the recommendations of the Chakravarthy and Narasimham Committees and the Insolvency and Bankruptcy Act.

Book for Reference

1. Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.
2. Chakravarty, S.C. (1985), Report of the Committee to Review the Working of the Monetary System, Reserve Bank of India, Bombay.
3. Dornbusch, Fischer and Startz, Macroeconomics, Tata McGraw Hill, New Delhi.
4. Edward Shapiro: Macroeconomics, McGraw Hill, New York.
5. Gurley, J and E.S. Shaw (1960), Money in a Theory of Finance, Brooking Institution, Washington.
6. James Froyen: Macroeconomics, McGraw Hill, New York.
7. Keynes, J.M. (1936), The General Theory of Employment, Interest and Money, Macmillan, London.
8. Laidler, D.E.W. (1977), Demand for Money: Theory and Evidence, Dum-Don Valley, New York.
9. Reddy, Y.V. (2000), A Review of Monetary and Financial Sector Reforms in India – A Central Banker's Perspective, UBSPD, New Delhi.

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https://gimms.org.uk/fact-sheets/
https://www.economicsnetwork.ac.uk/archive/starkey_banking
https://legacy.saylor.org/econ302/Intro/

23CMCN33   ENVIRONMENTAL AND RESOURCE ECONOMICS

L	T	P	O	C
4	0	0	2	4

Course Objectives

The objective of the Environmental Economics is to provide students with the necessary training for the application of economic theory and analysis to natural resource and environmental management issues.

UNIT-1: COMMON PROPERTY RESOURCES   12

Poverty and Environmental Degradation - Community Management of Common Property Resources - Coordination Failure- Increasing Returns, Free-riding Problem (Assurance Gameand Prisoner's Dilemma) - Market Failure and Tragedy of the Commons - Community Institutions: Case Studies

UNIT-II: SUSTAINABLE DEVELOPMENT AND GREEN ACCOUNTING   12

Environmental Kuznets Curve - Irreversibility, Uncertainty and Economic Development - Concept of Sustainability and Constraints - Environmental Accounting: Basic Theory - Environmentally Adjusted National Product

UNIT -III: ENVIRONMENTAL VALUATION AND COST-BENEFIT ANALYSIS 12

Total Economic Value of the Environment - Revealed Preference Approach - Household Production Function- Travel Cost- Hedonic Price Theory -Statistical Value of Life - Stated Preference Approach - Hypothetical Market and Contingent Valuation Method

UNIT-IV GLOBAL ISSUES AND THE ENVIRONMENT   12

Trade, Development and Environment - The Pollution Haven Hypothesis - International/ Interregional Cooperation - The Problem of Managing Transnational Commons - Porter Hypothesis - Economics of Climate Change

UNIT-V NATURAL RESOURCE ECONOMICS   12

Types, scarcity and classification of Natural Resources - Depletable and non-renewable resources - Recyclable resources – Replenishable but depletable resources – Storable renewable resources - Renewable common property Resources– Economic Theory of Depletable Resources- Optimal Use of Exhaustible Resources - Economics of Forestry and fisheries exploitation

Course Outcome

CO1 Students may recall key concepts related to common property resources, including poverty, environmental degradation, and community management techniques.

CO2 Students may explain the principles of sustainable development and green accounting, including the Environmental Kuznets Curve and environmentally adjusted national product.

CO3 Students may apply environmental valuation methods, such as the revealed preference approach and contingent valuation method, to assess the total economic value of the environment.

CO4 Students may analyze global environmental issues, including trade and development impacts, the pollution haven hypothesis, and the economics of climate change.

CO5 Students may evaluate different types of natural resources and their optimal use, including depletable, renewable, and recyclable resources, and assess the economic theories related to their management.

REFERENCE BOOKS

1. Baland&Platteau (2003): Economics of Common Property Management Regimes inMäler& Vincent (eds.) Handbook of Environmental Economics, Vol 1, North-Holland.
2. Barceló, D.(editor), (1996): "Environmental analysis. Techniques, Applications and Quality Assurance",Elsevier, The Netherlands.
3. Dasgupta, P (1982): The Control of Resources, HUP.
4. Eugene P.Odum, Ecology, (1996): Sinauer Associates Inc. chapters 3 and 5 Parts from :Y.Anjaneyulu, Introduction to environmental Science, B.S.Publications 2004.
5. Kadekodi , G. (2004): Environmental Economics in Practice: Case Studies from India, OUP.
6. M. Cole (1998): Trade Liberalization, Economic Growth and Environment.Edward-Elger.

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- http://moef.gov.in/en/environment/pollution/

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23CMCN34   **ENERGY ECONOMICS**

L	T	P	O	C
4	0	0	2	4

Course Objective

To understand the basic concepts of energy economics, sources of energy and importance of energy in economic development and to analyse the extent and factors affecting energy demand, energy supply, energy markets and Environmental consequences of energy use and policies and regulatory Mechanism for the sector.

UNIT-1: ENERGY CONCEPTS   12

Concepts - Definitions - Sources and Categories of Energy - Energy Balance Tables - Energy Data Sources - Energy System - Energy - Economy Linkages - Green Energy - Forms of Energy - Electricity, Coal, Oil and Renewable Sources - Availability and Features of Different Sources of Energy -   Management of Energy Resources - Energy and Environmental Sustainability.

UNIT-II: ENERGY SUPPLY AND DEMAND ANALYSIS   12

Energy Supply Analysis: Availability and Supply of Different Sources of Energy - Supply Constraints - Role of Renewable Sources of Energy - Institutional Framework for Energy Supply in India - Supply Scenario and Investment Requirements - Alternative Energy Sources - Energy Imports - Trends and Issues - Policies of the Government - Energy Demand Analysis: Determinants of Energy Demand - Estimating Energy Demand - Methods of Estimation - Price and Income Elasticity - Demand Estimation under Administered Price Regimes - Demand - Supply Gap - Energy Shortage and Crisis - Need for Energy Demand Management - Renewable Energy Options.

UNIT -III: ENERGY PRICING   12

Need - Methods and Principles of Energy Pricing - Economic Efficiency and Equity - Considerations - Pricing Under Supply Constrained Framework - Energy Markets - Regulation - Issues and Challenges

UNIT-IV   ENERGY EFFICIENCY AND CONSERVATION   12

Need - Principles and Methods - Energy Supply Side and Demand Side Management - Energy Efficiency - Institutional Machinery and Community Engagement - Estimation of Benefits - Energy Audit - Policy Alternatives.

UNIT-V ENERGY PLANNING AND POLICY   12

Approaches to Energy Planning - Principles and Components - Implementation Machinery - Decentralised Approach to Energy Planning - Planning for Energy Security - Integrated Energy Policy - Issues and Challenges - Alternative Energy Sources: Wind Energy – Solar Energy - Bio Mass Power - Waste-to-Power Small Hydro Power - Availability and Utilisation - Government Policies.

Course Outcome

Students may describe various energy sources, their categories, and their role in energy systems

Students may analyze the availability and constraints of different energy sources, assess energy supply scenarios

Students may apply methods and principles of energy pricing, considering economic efficiency and equity

Students may assess energy efficiency measures and conservation strategies, including supply-side and demand-side management

Students may evaluate various approaches to energy planning, including decentralised planning and integrated energy policies

Books for Reference

1. Kneese, A. V. and Sweeny, J L. (1985): Handbook of Natural Resource and Energy Economics. North Holland.
2. Munasinghe, M & Meier P. (1993): Energy Policy Analysis and Modeling, Cambridge University Press, U K.
3. Paul Stevens (Ed,) (1997): The Economics of Energy Vol -I and Vol – Elgar.
4. Sankar, U. (1992): Public Sector Pricing: Theory and Applications, Indian Economic Association Trust for Research and Development, New Delhi.

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23DMCN31   **ECONOMETRICS**

L	T	P	O	C
3	1	0	2	4

Course Objective

The student will have a deeper understanding of economic statistics, econometrics, and have greater confidence in its application. Students will learn the basics of ordinary least squares model estimation, with its advantages and disadvantages. Students will learn appropriate alternatives to ordinary least squares, when assumptions underlying the classical linear regression model are violated.

UNIT-1: LINEAR REGRESSION MODEL   12

Single Equation Methods (with independent and identically distributed errors) - K-variable Classical Linear Regression Model: specification, Estimation, Hypothesis testing, Prediction - Extension of CLRM: Qualitative Regressor - Dummy variables - Analysis of Stability.

UNIT-II: RELAXING ASSUMPTIONS   12

Generalized Linear Regression Model - Heteroskedasticity: Consequence, Detection, Correction - Autocorrelation: Consequence, Detection, Correction - Multicollinearity: Consequence, Detection, Correction - Stochastic Regressor (distributed lags).

UNIT -III: SIMULTANEOUS EQUATION SYSTEM   12

Problem of Identification: Structural Form and Reduced Form - -Observational Equivalence - Rank and Order Condition - Limited Information Estimation: Endogeneity problem - Instrumental Variable, Omitted Variable.

UNIT-IV STOCHASTIC TRENDS   12

Time Series Data - Trend Stationary Process - Difference Stationary Process - Random Walk and Unit root -detection, correction – Co-integration and Error Correction Test for Causality

UNIT-VLIMITED DEPENDENT VARIABLES   12

Cross Section Data - Problem of Partial Observability- Truncation and Censoring Of Error Distribution - LPM, LOGT, PROBIT, TOBIT - Panel data models: Least Square Dummy Variable - Fixed Effect, Random Effect

Course Outcome

CO1 Students may define key concepts and methods in linear regression models, including the classical linear regression model (CLRM) and dummy variables.

CO2 Students may explain the implications of relaxing assumptions in regression analysis, such as dealing with heteroskedasticity, autocorrelation, and multicollinearity.

CO3 Students may apply techniques for handling simultaneous equation systems, including identification problems, structural and reduced forms, and instrumental variables.

CO4 Students may analyze time series data to identify and correct stochastic trends, such as random walks and unit roots, and test for cointegration and causality.

CO5 Students may evaluate models for limited dependent variables, such as LPM, LOGIT, PROBIT, and TOBIT, and apply panel data models to address issues of partial observability and variable effects.

Books for Reference

1. Baltagi, Badi H (2008), Econometrics, Springer-Verlag, Berlin, 4th Edition.
2. Gujarati, Damodar N and Dawn C Porter (2009), Basic Econometrics, McGraw Hill,New York, 5th Edition.
3. Johnston, Jack and John Dinardo (1997), Econometric Methods, McGraw Hill, NewYork, 4th Edition.
4. Kementa, J (1986): Elements of Econometrics (2nd Edition), McMillan-Maxwell, NY;
5. Maddala, G S and Kajal Lahiri (2009), Introduction to Econometrics, John Wiley &Sons, England, 4th Edition.
6. Wooldridge, Jeffrey M (2009), Introductory Econometrics: A Modern Approach, SouthWestern Cengage Learning, USA, 4th Edition.

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3. https://indiaai.gov.in/article/six-best-online-resources-for-econometrics

23SMCN31   **INDUSTRIAL ECONOMICS**

L	T	P	O	C
3	0	0	1	3

Course Objective

Students will be able to industrial organization & it provides a foundation for the study of many other fields related to industry. Students will be able to understanding an interactions among firms in the economy, including business strategy, corporate finance, marketing, international trade, banking, and the economics of organizations.

UNIT I: BASICS OF INDUSTRIAL ECONOMICS   12

Meaning of Industrialization - Role of Industry in Economic Development. Organisation of a Firm: Meaning - Concepts - Objectives -Characteristics. Classification of Industries: Small, Medium and Large Scale - Industries in India.

UNIT II: THEORIES OF INDUSTRIES AND LOCATION   12

Theories of Industry: Hoffman, Chenery and Gerschenkron.- Theories of Industrial Location: Weber, Sargant Florence – Factors Affecting Industrial Location –

UNIT III : INDUSTRIAL ECONOMICS AND MARKET STRUCTURE   12

Market Structure - Meaning - Different types of Market Structure - Sellers Concentration. Product Differentiation - Meaning of Product - Characteristics of Product - Entry Conditions - Economies of Scale - Meaning - Short and Long Economies of Scale- Profitability and Innovation.

UNIT IV: GROWTH OF THE FIRM   12

Growth of the Firm - Size and Growth - Growth and Profitability of the Firm - Constraints on Growth. Productivity: Meaning - Efficiency of Firm and Industry. Capacity Utilisation: Concept - Measurement - its importance. Industrial Policy: Industrial Policy in India - Industrial Performance after Independence. Public and Private Sectors: Meaning - Role - Characteristics - Importance of Public and Private Partnership in Developing Country - Limitations.

UNIT V: INDUSTRIAL TECHNOLOGY   12

Industrial Technology: Role of Technology for Industrial Development - India as a Global Hub - Transfer of Technology - LPG - Recent Central Government Initiative to Encourage Industrial Sector.

Course Outcome

CO1 Students may describe the role of industrialization in economic development and understand different types of industries in India.

CO2 Students may explain various theories of industry and industrial location, and identify factors affecting industrial location.

CO3 Students may analyze different market structures, including their characteristics, product differentiation, and economies of scale.

CO3 Students may evaluate the growth and profitability of firms, productivity measures, and capacity utilization, as well as understand industrial policy and the roles of public and private sectors.

CO5 Students may examine the role of technology in industrial development, including India's position as a global hub, technology transfer, and recent government initiatives to boost the industrial sector.

Books for Reference

1. Clarke, Roger. 1985. Industrial Economics. New York: Basil Blackwell.
2. Barthwal, R.R. 1995. Industrial Economics. New Delhi: New Age International.
3. Smith, D.M. 1971. Industrial Location: An Economic and Geographic
4. Analysis. New York: John Wiley.
5. Ahluwalia, I. J. 1985. Industrial Growth in India. New Delhi: Oxford University

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23CMCN41   **MACRO ECONOMICS-II**

L	T	P	O	C
4	0	0	2	4

Course Objective

This Course builds on concepts and models to study economic decisions and outcomes and the role of government in the national and international economy.

UNIT-1: THEORY OF INFLATION   12

Classical, Keynesian and Monetarist Approaches to Inflation, Semi and Full inflation - Theory of Structural Inflation, Stagflation, Control of Inflation - Philips Curve Analysis – Short Run and Long Run Philip's Curve - The Natural Rate of Unemployment Hypothesis - Tobin 's Modified Philip Curve.

UNIT-II MEASURING INFLATION   12

Consumer price index and wholesale Price Index - What does it say about the state of the economy? - Real vs. nominal income and earnings - Real and Nominal rates of interest - Costs and causes of inflation

UNIT-III: BUSINESS CYCLES   12

Main Features of Business Cycles - Types of Business Cycle - Measures to Control Business Cycle - Theories of Business Cycles -Hawtrey's Monetary Theory of Trade - Cycle, Schumpeter's, Keynes and Hicks - Samuelson's, Friedman, Kaldor Model of Trade Cycle.

UNIT -IV: MONETARY POLICY AND FISCAL POLICY   12

Monetary Policy-Meaning of Monetary Policy, Instrument of Monetary Policy - Objective of Monetary policy, Limitations of Monetary Policy, Monetary Policy and Economic Development - Fiscal Policy – Meaning of Fiscal Policy, Instruments of Fiscal Policy - Objectives of Fiscal Policy, Fiscal Policy and Economic Growth, Effectiveness of Fiscal Policy - Monetarism Vs Fiscalism – The Debate, Similarities between Monetary Policies and Fiscal Policies.

UNIT-V THE RATIONAL EXPECTATION HYPOTHESIS   12

Adaptive Expectations - Rational Expectations - The New Classical Macro Economics - Policy implications of New Classical Macro Economics - Supply Side Economics: - Main Features, Policy Prescriptions.

Course Outcome

CO1 Students may describe classical, Keynesian, and Monetarist approaches to inflation, including concepts like stagflation and the Philips Curve.

CO2 Students may explain how to measure inflation using the Consumer Price Index (CPI) and Wholesale Price Index (WPI), and differentiate between real and nominal values.

CO3 Students may identify the main features and types of business cycles, different theories and measures to control business cycles.

CO4 Students may compare monetary and fiscal policies, including their instruments, objectives, and effectiveness, and understand the debate between monetarism and fiscalism.

CO5 Students may evaluate the Rational Expectation Hypothesis and its implications and the principles and policy prescriptions of Supply-Side Economics.

Books for Reference

1. Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.
2. Begg, D. K. H. (1982), The Rational Expectation Revolution in Macro-Economics",Oxford, AllanBehaviour, Harvard University Press, Harvard.
3. Branson, W. (1989) – Macroeconomic Theory and Policy; (3rd Ed, Harper & Row)Cambridge)
4. Davidson, Paul (1994), Post Keynesian Macroeconomic Theory, Aldershot, Uk:
5. Dornbush, R. and S. Fischer (2004) – Macroeconomics (9th Ed, Tata-Mcgraw Hill)).
6. Duesenberry, J.S. (1949), Income, Saving and the Theory of Consumer

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23CMCN42   **FINANCIAL ECONOMICS**

L	T	P	O	C
4	0	0	2	4

Course Objective

This course aims to get an economist's perspective to the learners about with how the system aids resource allocation and economic growth. At the end this subject helps the learners to describe the main functions of the financial system; to solve present value problems; to derive key financial formulas; and explain how the stock and bond markets operate.

UNIT-1: BASIC FINANCIAL CALCULATIONS   12

Financial Securities- Zero Coupon Bond, Fixed Interest, Index Linked Securities - The Time Value of Money - Nominal Vs. Real Interest - Deflationary Conditions; Accumulating Factors - Force of Interest, Compound Interest Functions

UNIT-II:ANNUITIES AND EQUATION OF VALUE   12

Discounting and Accumulation - Discrete and Continuous Cash Flows - Level Annuities, Deferred and Increasing/Decreasing Annuities - Equation of Value and Yield on Transaction, Probability of Cash Flows - Higher Discount, Loan Schedules; Consumer Credit: Flat Rate and APRs.

UNIT -III: ARBITRAGE, CONTRACTS AND STRUCTURE OF INTEREST   12

Arbitrage, Forward Contracts, and Term Structure of Interest - Rationale for no arbitrage assumption; forward contracts - Forward Price for A Security with Known Dividend Yield; Hedging, Fixed Cash Income - Discrete Time and Continuous Time Rates; Continuous Time Spot Rates and Forward Rates, Forward Rates - Term Structure of Interest Rates; Yield Curve; Yields to Maturity; Convexity and Immunization

UNIT-IV   FINANCIAL MARKETS   12

Introduction to Financial Markets - Capital Markets, Consumption and Investments with and without Capital Markets - Market Places and Transaction Costs and The Breakdown of Separation - Fisher Separation Theorem - The Agency Problem; Maximization of Shareholder's Wealth

UNIT-VTHEORY OF UNCERTAINTY   12

Axioms of Choice Under Uncertainty - Utility Functions; Expected Utility Theorem - Certainty Equivalence, Measures Of Risk-Absolute And Relative Risk Aversions - Stochastic Dominance-First Order, Second Order and Third Order - Measures of

Investment Risk-Variance of Return, Semi-Variance of Return, Shortfall Probabilities.

Course Outcome

Students may **explain** basic financial securities, the time value of money, and the difference between nominal and real interest rates.

Students may **apply** concepts of annuities, including discrete and continuous cash flows, level and deferred annuities, and use the equation of value to solve problems related to annuities and loan schedules.

Students may **analyze** arbitrage opportunities, forward contracts, and the term structure of interest rates, including concepts such as yield curves, forward rates, and immunization.

Students may **evaluate** the role of financial markets, including capital markets, transaction costs, and the Fisher Separation Theorem, and understand the implications of market inefficiencies and the agency problem.

Students may **assess** different measures of risk and uncertainty, including utility functions, expected utility theorem, and stochastic dominance, to make informed decisions under uncertainty.

Books for Reference

1. Baxter, M. and A. L. Rennie, Financial Calculus, Cambridge University Press,1996.
2. Brealey, R. and S. Myers, Principles of Corporate Finance, fifth edition, New York,McGraw Hill, 1997.
3. Copeland, T. E. and J. F. Weston, Financial Theory and Corporate Policy, AddisonWesley, 1992
4. Elton, E.J and M.J. Gruber, Modern Portfolio Theory & Investment Analysis, (fourthedition) John Wiley & Sons 1991.
5. Houthakker, H.S. and P.J. Williamson, Economics of Financial Markets, OxfordUniversity Press, 1996

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3. https://www.classcentral.com/course/edx-financial-institutions-and-markets-6260

23CMCN43   **RESEARCH METHODOLOGY**

L	T	P	O	C
4	0	2	4	

Course Objectives

This course is expected to provide an understanding of the basic principles and methods of research in Social Sciences. Equip students inclined to do research with the procedure and discipline of a research activity.

UNIT-1: INTRODUCTION TO RESEARCH METHODOLOGY   12

Meaning of Research-Definitions of Research- Research Foundations-Abstract and Concrete Knowledge - Objectives of research, Research methods versus methodology, Research approaches - Types of research- Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical - Other types of research - Qualities of a good researcher, Significance of research.

UNIT-II: RESEARCH PROCESS   12

Formulating the research problem: Sources of Ideas-Literature Review, Library and Web-sources. - Constructing Frameworks, Role of Theory Choosing a Research - Topic-Developing Research Questions (Hypothesis) Preparing the Research Design; Determining Sample Design - Collecting Data; Execution of The Project; Analysis of Data – Hypothesis Testing; Generalization and Interpretation - Preparation of the Report or Presentation of the Results.

UNIT -III: RESEARCH DESIGN   12

Features of research design, Concepts relating to research design - Types of research design -exploratory research design- descriptive - and diagnostic research design hypothesis-testing research design - Characteristics of a good research design - Case study Research-Sample Survey - Hypothesis and its testing.

UNIT-IV DATA COLLECTION   12

Sources of data: Primary Data -Methods of collecting primary data - Sources of secondary data- Published sources, Unpublished - sources - Questionnaire Drafting of questionnaire - Meaning and essentials of sampling- Sampling Methods - Statistical Laws: Law of Statistical Regularity, Law of Inertia of Large Numbers.

UNIT-V DATA PROCESSING AND ANALYSIS   12

Statistical Analysis- Probability -Probability distribution –Binomial Distribution - Poisson Distribution -Normal Distribution - Testing of Hypothesis -Small Sample

Large Sample Test, Chi-Square Test Statistical Applications. - Report Writing and Presentation- Structure and Components of Research Reports - Characteristics of a Good Report - Framework of a Report - Importance of Presentation of a Report

Course Outcome

CO1 Students may define key concepts in research methodology, including the differences between research methods and methodology, and various types of research.
CO2 Students may outline the research process, including formulating research problems, conducting literature reviews, and developing research questions and designs.
CO3 Students may describe different types of research designs, such as exploratory, descriptive, and hypothesis-testing designs, and their characteristics.
CO4 Students may identify sources of primary and secondary data, **apply** methods for collecting and sampling data, and draft effective questionnaires.
CO5 Students may perform statistical analyses using probability distributions and hypothesis testing, and **prepare** well-structured research reports with clear presentations.

Books for Reference

1. Bhandarkar, P.L. and T.S. Wilkinson, Methodology And Techniques Of Social Research. Himalaya Publishing

2. Druckman , Daniel, Doing Research, Sage

3. Kothari, C.R., Research Methodology: Methods and Techniques, New Age International

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23CMCN44   **COMPUTATIONAL ECONOMICS**

L	T	P	O	C
4	0	0	2	4

Course Objective

This paper is designed to impart the skills related to data analysis andcarrying out independent research activities. The course has potential to enhance the employability of students passing out from the department of Analytical and Applied Economics.

UNIT-IFUNDAMENTALS OF RESEARCH AND ACADEMIC ETHICS   12

Key Elements of Writing a Research Proposal - Review of Literature: Meaning, Objectives, Types, Sources, Stages and Precautions - Exercise on wiring a review of literature - Ethical Guidelines for Social Sciences research Plagiarism: Meaning and types; How to avoid Plagiarism

UNIT-II: DATA ANALYSIS THROUGH SPSS   12

Basics of SPSS - Descriptive Statistics in SPSS - Graphs and Charts in SPSS - Simple statistical Measures using SPSS - Regression Analysis using SPSS

UNIT -III DATA ANALYSIS THROUGH STATA   12

Basics of STATA - Descriptive Statistics in STATA - Graphs and Charts in STATA - Regression Analysis using STATA - Data Analysis Through STATA

UNIT-IV DATA ANALYSIS THROUGH EVIEWS   12

Basics of Eviews - Descriptive Statistics in Eviews - Graphs and Charts in Eviews - Regression Analysis using Eviews - Data Analysis Through Eviews

UNIT-VDATA ANALYSIS (R-STATISTICS OR GRETL)   12

Basics of R-Statistics/GRETL - Descriptive Statistics in RStatistics/GRETL -Graphs and Charts in in R Statistics/GRETL -

Regression Analysis using R Statistics/GRETL - Open Source Softwires for Data analysis (R-Statistics or GRETL)

Course Outcome

On successful completion of this paper, students will have:

1. Increased ability to observe social realities with the lens of a researcher;

2. Increased number of students opting for dissertation in the fourth semester; and

3. Increased employability of students in research organisations and corporate sector.

4. D**emonstrate** proficiency in using statistical software tools (SPSS, STATA, Eviews, R-Statistics/GRETL) for performing descriptive statistics, creating graphs and charts, and conducting regression analysis.

5. **develop** a research proposal including a literature review, adhere to ethical guidelines in social sciences research

Books for Reference

1.   David M. Levine et al, "Statistics for Managers using MS Excel' (6th Edition) Pearson, 2010 .

2.   David R. Anderson, et al, 'An Introduction to Management Sciences:

Quantitative approaches to Decision Making, (13th edition) South-Western College Pub, 2011.

3.   William   J.   Stevenson,   CeyhunOzgur,   'Introduction   to   Management   Science   with Spre

4.   Wayne L. Winston, Microsoft Excel 2010: Data **Analysis & Business Modeling,**

3rd edition, Microsoft Press, 2011.

Web Links

1.   https://www.researchoptimus.com/article/what-is-correlation.php

2.   https://www.researchgate.net/publication/287275305_Data_Analysis_for_Effective_Decision_ Making

3.   https://www.slideshare.net/31mikaella/presentation-analysis-and-interpretation-of-data

4.   https://www.slideshare.net/MuhammadIbrahim15/data-analysis-using-spss

23DMCN41   **DISSERTATION**

L	T	P	O	C
4	0	0	2	4

OBJECTIVES

Students who complete their post-graduation in Economics are mentally equipped to pursueresearch in the same discipline. It is generally accepted that research is nothing but extension andapplication of knowledge in a certain specialized field. Therefore, students who do theirpost-graduation will be given an opportunity to get exposed to a few elements of social researchand also, they are expected to complete a research project/dissertation under the expert guidanceand supervision. Elementary knowledge of research methodology shall consolidate and deepentheir understanding of various branches of Economics. Preparing a dissertation is intended to trainthem in scientific thinking and art of systematic presentation. It is essentially a job-orientedexercise to enable them to take up the exciting field of social and economic research.

DISSERTATION: STRUCTURE AND EVALUATION

a) Students shall submit a dissertation of maximum 25,000 words in three copies to be submitted to the Department before the prescribed date.

b) The students have to appear before a closed viva voce conducted by a minimum of two members from the Economics Department and one external examiner.

23SMCN41   **INTERNSHIP**

The internship module aims to provide the student with:

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- A practice-oriented and 'hands-on' working experience in the real world or industry, and to enhance the student's learning experience.

- An opportunity to develop a right work attitude, self-confidence, interpersonal skills and ability to work as a team in a real organisational setting.

- An opportunity to further develop and enhance operational, customer service and other life-long knowledge and skills in a real world work environment.

- Pre-employment training opportunities and an opportunity for the company or organisation to assess the performance of the student and to offer the student an employment opportunity after his/her graduation, if it deems fit.

COURSE OUTCOMES:

At the end of the course, a student will be able to

CO -1: Understanding the application of knowledge and skill sets acquired from the course and workplace in the assigned job function/s.

CO – 2: Applying real life challenges in the workplace by analyzing work environment and conditions, and selecting appropriate skill sets acquired from the course.

CO – 3: Create critical thinking and problem-solving skills by analyzing underlying issue/s to challenges.

CO – 4: Understanding the ability to harness resources by analyzing challenges and considering opportunities.

CO – 5: Understanding appreciation and respect for diverse groups of professionals by engaging harmoniously with different company stakeholders.