M.A. ECONOMICS

SYLLABUS

FROM THE ACADEMIC YEAR
2026 - 2027

TAMILNADU STATE COUNCIL FOR HIGHER EDUCATION,
CHENNAI – 600 005

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<tr><td>Programme Code</td><td></td></tr>
<tr><td>Duration</td><td>PG - Two Years</td></tr>
<tr><td>Programme Outcomes (Pos)</td><td>PO1: Problem Solving Skill
Apply knowledge of Management theories and Human Resource practices to solve business problems through research in Global context.
PO2: Decision Making Skill
Foster analytical and critical thinking abilities for data-based decision-making.
PO3: Ethical Value
Ability to incorporate quality, ethical and legal value-based perspectives to all organizational activities.
PO4: Communication Skill
Ability to develop communication, managerial and interpersonal skills.
PO5: Individual and Team Leadership Skill
Capability to lead themselves and the team to achieve organizational goals.
PO6: Employability Skill
Inculcate contemporary business practices to enhance employability skills in the competitive environment.
PO7: Entrepreneurial Skill
Equip with skills and competencies to become an entrepreneur.
PO8: Contribution to Society
Succeed in career endeavors and contribute significantly to society.</td></tr>
</table>

	PO9: Multicultural competence Possess knowledge of the values and beliefs of multiple cultures and a global perspective. **PO 10: Moral and ethical awareness/reasoning** Ability to embrace moral/ethical values in conducting one's life.
Programme Specific Outcomes **(PSOs)**	**PSO1 – Placement** To prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions. **PSO 2 - Entrepreneur** To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations. **PSO3 – Research and Development** Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development. **PSO4 – Contribution to Business World** To produce employable, ethical and innovative professionals to sustain in the dynamic business world. **PSO 5 – Contribution to the Society** To contribute to the development of the society by collaborating with stakeholders for mutual benefit.

Template for P.G., Programmes

Semester–I	Credit	Hours	Semester-II	Credit	Hours	Semester-III	Credit	Hours	Semester–IV	Credit	Hours
1.1. Core-I	5	7	2.1. Core-IV	5	6	3.1. Core-VII	5	6	4.1. Core-XI	5	6
1.2 Core-II	5	7	2.2 Core-V	5	6	3.2 Core-VIII	5	6	4.2 Core-XII	5	6
1.3 Core – III	4	6	2.3 Core – VI	4	6	3.3 Core – IX	5	6	4.3 Project with viva voce	7	10
1.4 Discipline Centric Elective -I	3	5	2.4 Discipline Centric Elective – III	3	4	3.4 Core – X	4	6	4.4Elective - VI (Industry / Entrepreneurship) 20% Theory 80% Practical	3	4
1.5 Generic Elective-II:	3	5	2.5 Generic Elective -IV:	3	4	3.5 Discipline Centric Elective - V	3	3	4.5 Skill Enhancement course / Professional Competency Skill	2	4
			2.6 NME I	2	4	3.6 NME II	2	3	4.6 Extension Activity	1	
			2.7 Human Rights	1	-	3.7 Internship/ Industrial Activity	2	-			
						3.8 Value Added course	2	-			
	20	**30**		**23**	**30**		**28**	**30**		**23**	**30**
Total Credit Points - 94											

Choice Based Credit System (CBCS), Learning Outcomes Based Curriculum Framework (LOCF) Guideline Based Credits and Hours Distribution System for all Post – Graduate Courses including Lab Hours

First Year – Semester – I			
Part	**List of Courses**	**Credits**	**No. of Hours**
	Core – I	5	7
	Core – II	5	7
	Core – III	4	6
	Elective – I	3	5
	Elective – II	3	5
		20	**30**
Semester-II			
Part	**List of Courses**	**Credits**	**No. of Hours**
	Core – IV	5	6
	Core – V	5	6
	Core – VI	4	6
	Elective – III	3	4
	Elective – IV	3	4
	Skill Enhancement Course [SEC] - I	2	4
	Human Rights	1	-
		23	**30**
Second Year – Semester – III			
Part	**List of Courses**	**Credits**	**No. of Hours**
	Core – VII	5	6
	Core – VIII	5	6
	Core – IX	5	6
	Core (Industry Module) – X	4	6
	Elective – V	3	3
	Skill Enhancement Course – II	2	3
	Internship / Industrial Activity [Credits]	2	-
	Value Added course	2	-
		28	**30**
Semester-IV			
Part	**List of Courses**	**Credits**	**No. of Hours**
	Core – XI	5	6
	Core – XII	5	6
	Project with VIVA VOCE	7	10
	Elective – VI (Industry Entrepreneurship)	3	4
	Skill Enhancement Course – III / Professional Competency Skill	2	4
	Extension Activity	1	-
		23	**30**

Total 94 Credits for PG Courses

METHODS OF EVALUATION		
Internal Evaluation	Continuous Internal Assessment Test	**25 Marks**
	Assignments / Snap Test / Quiz	
	Seminars	
	Attendance and Class Participation	
External Evaluation	End Semester Examination	**75 Marks**
Total		**100 Marks**

METHODS OF ASSESSMENT	
Remembering (K1)	• The lowest level of questions require students to recall information from the course content • Knowledge questions usually require students to identify information in the text book.
Understanding (K2)	• Understanding of facts and ideas by comprehending organizing, comparing, translating, interpolating and interpreting in their own words. • The questions go beyond simple recall and require students to combine data together
Application (K3)	• Students have to solve problems by using / applying a concept learned in the classroom. • Students must use their knowledge to determine a exact response.
Analyze (K4)	• Analyzing the question is one that asks the students to break down something into its component parts. • Analyzing requires students to identify reasons causes or motives and reach conclusions or generalizations.
Evaluate (K5)	• Evaluation requires an individual to make judgment on something. • Questions to be asked to judge the value of an idea, a character, a work of art, or a solution to a problem. • Students are engaged in decision-making and problem – solving. • Evaluation questions do not have single right answers.
Create (K6)	• The questions of this category challenge students to get engaged in creative and original thinking. • Developing original ideas and problem solving skills

PROGRAMME OUTCOMES (PO) - PROGRAMME SPECIFIC OUTCOMES (PSO) MAPPING

PROGRAMME SPECIFIC OUTCOMES (PSO)					
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
PSO1	**3**	**3**	**3**	**3**	**3**
PSO2	**3**	**3**	**3**	**3**	**3**
PSO3	**3**	**3**	**3**	**3**	**3**
PSO4	**3**	**3**	**3**	**3**	**3**
PSO5	**3**	**3**	**3**	**3**	**3**

Level of Correlation between PO's and PSO's
(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value
1 – Low
2 – Medium
3 – High
0 – No Correlation

M.A., ECONOMICS

SYLLABUS

FIRST YEAR -FIRST SEMESTER

Course Components	Course Code	Name of the Course	Ins. Hrs	Credits	CIA	External	Total
Core Paper-I	26UPECO1C01	Advanced Micro Economics	7	5	25	75	100
Core Paper-II	26UPECO1C02	Indian Economy	7	5	25	75	100
Core Paper-III	26UPECO1C03	Statistics for Economists	6	4	25	75	100
Elective-I	26UPECO1E01 26UPECO1E02 26UPECO1E03	1. Classical Economic Thought **(or)** 2. Rural Economics **(or)** 3. Agricultural Economics	5	3	25	75	100
Elective-II	26UPECO1E04 26UPECO1E05 26UPECO1E06	1. Environmental Economics **(or)** 2. Regional Economics **(or)** 3. Welfare Economics	5	3	25	75	100
		Total	**30**	**20**			

FIRST YEAR -SECOND SEMESTER

Course Components	Course Code	Name of the Course	Ins Hrs.	Credits	CIA	External	Total
Core Paper-IV	26UPECO1C04	Monetary Economics	6	5	25	75	100
Core Paper-V	26UPECO1C05	Health Economics	6	5	25	75	100
Core Paper-VI	26UPECO1C06	Mathematical Economics	6	4	25	75	100
Elective-III	26UPECO1E07 26UPECO1E08 26UPECO1E09	1. Gender Economics **(or)** 2. Urban Economics **(or)** 3. Industrial Economics	4	3	25	75	100
Elective-IV	26UPECO1E10 26UPECO1E11 26UPECO1E12	1. Resource Economics **(or)** 2. Economics of Climate Change **(or)** 3. Economics of Sustainable Development	4	3	25	75	100
NME- I	26UPECO1N01	Online Course – Swayam/NPTEL	4	2	25	75	100
	26UPPGC1H01	Fundamentals of Human Rights	2	1	25	75	100
		Total	**32**	**23**			

SECOND YEAR - THIRD SEMESTER

Course Components	Course Code	Name of the Course	Ins Hrs.	Credits	CIA	External	Total
Core Paper-VII	26UPECO1C07	Advanced Macro Economics	6	5	25	75	100
Core Paper-VIII	26UPECO1C08	Public Economics	6	5	25	75	100
Core Paper-IX	26UPECO1C09	Research Methodology	6	5	25	75	100
Core Paper-X	26UPECO1C10	Econometric Methods	6	4	25	75	100
Elective-V	26UPECO1E13 26UPECO1E14 26UPECO1E15	1. Economics in Everyday Life **(or)** 2. Entrepreneurial Development **(or)** 3. Demography	3	3	25	75	100
NME - II	26UPECO1N02 26UPECO1N03	Social Ethics and Responsibilities **(or)** Economics for Competitive Examinations	3	2	25	75	100
Internship/ Industrial activity	26UPECO1I01	Skill Enhancement in Companies and Institutions	-	2	-	-	
Value Added	26UPGEN1V01	Peace Education	-	2	25	75	100
		Total	**30**	**28**			

SECOND YEAR - FOURTH SEMESTER

Course Components	Course Code	Name of the Course	Ins Hrs.	Credits	CIA	External	Total
Core Paper-XI	26UPECO1C11	International Economics	6	5	25	75	100
Core Paper-XII	26UPECO1C12	Development Economics	6	5	25	75	100
Project with Viva – Voce	26UPECO1P01	Project	10	7			100
Elective-VI	26UPECO1E16 26UPECO1E17 26UPECO1E18	1. Economics of Social Issues **(or)** 2. Human Resource Development **(or)** 3. Maritime Economics	4	3	25	75	100
Skill Enhancement Course / Professional Competency Skill	26UPECO1S01	Economics of MSMEs	4	2	25	75	100
Extension Activity	26UPECO1X01	Extension Activity	-	1			
		Total	**30**	**23**			

SEMESTER	Hours	Credits
I	30	20
II	32	23
III	30	28
IV	30	23
Total	**122**	**94**

Papers	No. of Papers X Credits	Total Credits
Core Papers	9X 5 = 45 3 X 4 = 12	57
Electives	6 X 3	18
NME/Supportive	2 X 2	04
Skill Enhancement Course	1 X 2	02
Project	1 X 7	07
Internship/Industrial Activity	1 X 2	02
Extension Activity	1 X 1	01
Human Rights	1 X 1	01
Value Added	1 X 2	02
Total		**94**

Optional Core Courses:

1. Agricultural Economics
2. Industrial Economics
3. Health Economics
4. Managerial Economics
5. Financial Economics
6. History of Economic Thought
7. Computer Application in Economics

Optional Elective Courses:

1. Economics of Infrastructure
2. Economics of Sustainable Development
3. Maritime Economics
4. Population Studies/ Demography
5. Economic Thoughts of Nobel Laureates
6. Economics of Natural Disasters

SEMESTER- – I

SEMESTER – I

CORE – I

26UPECO1C01 ADVANCED MICRO ECONOMICS

Course Objectives

1. To make the students understand consumer behavior with the theories of Demand and Production **and their applications in digital markets, behavioural economics, and contemporary business environments.**
2. To elaborate various market structure and the theories of distribution **in the context of digital markets and contemporary economic developments.**

Unit I: Consumer Choice & Production

Cardinal and ordinal utility – Indifference curve approach – Slutsky's Decomposition of price effect into substitution effect and income effect – Consumer surplus – Marshall's and Hicksian measures – Compensatory Demand Curve – Revealed Preference Theorem – Derivation of Marginal Utility Schedule for Money Income – VES– **Behavioural Economics** – **Nudge Theory** – **Digital Consumer Behaviour**.

Unit II: Market Structure Models

Perfect Competition – Price and Output Determination – Optimum Firm – Monopoly: Short-run and Long-run Equilibrium – Price Discrimination – Monopoly Control and Regulation – Contestable Market – Monopolistic Competition – Chamberlin Model – Selling Costs – Excess Capacity – Oligopoly – Duopoly Price Game – Dominant Strategy – Nash Equilibrium – Non-collusive Models: Cournot, Bertrand, Chamberlin, Edgeworth, Sweezy and Stackelberg – Collusive Models – Cartels and Mergers – Price Leadership – Base Point Price System – Monopsony – Price and Output Determination – Workable Competition – **Digital Monopoly and Platform Markets – Product Differentiation in Digital Markets – Competition Policy and Digital Antitrust – Gig Economy and Labour Markets.**

Unit III: Economics of Information

Informational asymmetry – Choice under Uncertainty – N-M Index – Inter-temporal choice – Market for lemons – Adverse selection – Insurance market and adverse selection – Solution to principal-agent problem – Hidden action (Moral Hazard) – Signaling and Screening – **Big Data and Information Economics** – **Artificial Intelligence in Decision Making**.

Unit IV: Alternative Theories of Firm

Full Cost Pricing Rule – Limits pricing theory – Bain's Theory – Sylos-Labini Model – Modigliani's Models – Input-output model – Linear programming applications in decision making – Peak Load Pricing – Administered Pricing – Purchasing Power Parity Price – **Digital Business Models** – **Dynamic Pricing Strategies** – **ESG (Environmental, Social and Governance) Practices**.

Unit V: Production and Distribution Theories

Neo-classical approach – Marginal productivity theory – Product exhaustion theorem – Modern theory of distribution – Factor Pricing in imperfect product and factor markets – Determination of Wages – Labour supply and wage determination – Role of trade unions and collective bargaining – Theories of Interest – Theories of Profit – **Human Capital and Skill Development** – **Income Inequality and Inclusive Growth** – **Sustainable Production and Green Productivity**.

Text Books

1. Varian, H. R. *Intermediate Microeconomics: A Modern Approach*. W. W. Norton & Company, Latest Edition.
2. Pindyck, R. S., & Rubinfeld, D. L. *Microeconomics*. Pearson Education, Latest Edition.
3. Nicholson, W., & Snyder, C. *Microeconomic Theory: Basic Principles and Extensions*. Cengage Learning, Latest Edition.

References

1. Varian, H. R. (2024). *Intermediate microeconomics: A modern approach* (10th ed.). W. W. Norton & Company.
2. Pindyck, R. S., & Rubinfeld, D. L. (2023). *Microeconomics* (10th ed.). Pearson Education.
3. Nicholson, W., & Snyder, C. (2022). *Microeconomic theory: Basic principles and extensions* (12th ed.). Cengage Learning.
4. Perloff, J. M. (2024). *Microeconomics* (9th ed.). Pearson Education.
5. Kreps, D. M. (2023). *A course in microeconomic theory*. Princeton University Press.

Web Resources

1. https://www.nber.org | National Bureau of Economic Research (NBER) – Working papers and research in microeconomics and industrial organization.
2. https://www.aeaweb.org | American Economic Association (AEA) – Journals, publications, and teaching resources in economics.
3. https://www.core-econ.org | CORE Econ – Open-access learning resources on modern microeconomics and behavioural economics.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain consumer behaviour, demand theory, production theory, and modern approaches to consumer choice.	**K2, K3**
CO2	To analyze market structures, pricing strategies, competition, and digital market behaviour.	**K3, K4**
CO3	To evaluate information economics, uncertainty, and the role of artificial intelligence in economic decision-making.	**K4, K5**
CO4	To assess alternative theories of the firm, pricing strategies, and business decision models in contemporary markets.	**K4, K5**
CO5	To examine production and distribution theories, factor pricing, labour markets, and sustainable economic development.	**K4, K5**

K1 – Remember, K2 – Understand, K3 – Apply, K4 – Analyze, K5 – Evaluate, K6 – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correlation between PSOs and COs

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

3 – High Correlation
2 – Moderate Correlation
1 – Low Correlation
0 – No Correlation

SEMESTER – I

CORE – II

26UPECO1C02 INDIAN ECONOMY

Course Objectives

1. To provide a macroeconomic understanding of the Indian Economy.
2. The students become aware of various challenges of the Indian Economy.

Unit 1: Introduction

Growth and Structural Change Indian economy at Independence- The policy framework: statist policy, transition to market-oriented policy, role of erstwhile Planning Commission and NITI Aayog – Pre and Post Economic Reforms, factors underlying turnaround- Structural change in Indian economy – **Digital Economy in India** – **Viksit Bharat @2047** – **Green Growth and Sustainable Development Goals (SDGs).**

Unit 2: Agricultural and Industrial Sector

Agricultural and Industrial Sectors – Performance of the agricultural sector - factors determining agricultural growth - factors underlying food inflation - agricultural price policy and food security - industrial growth before and after economic reforms - dualism in Indian manufacturing - issues in the performance of public sector enterprises and privatization - **Natural Farming and Climate-Resilient Agriculture Production Linked Incentive (PLI) Scheme - Industry 4.0 and Digital Manufacturing**.

Unit 3: Fiscal Developments

Fiscal Developments, Finance and External Sector Expenditure trends- GST: rationale and impact- External sector performance: emergence of India as major exporter in services, performance of manufacturing sector – Fiscal reforms – **Digital Payments (UPI) and Financial Inclusion** – **Green Finance and Climate Finance** – **Public Debt Management** – **India's G20 Economic Initiatives** – **FinTech and Digital Financial Services.**

Unit 4: Poverty and Inequality

Poverty and Inequality - Measuring poverty in India: Selection of poverty lines- Poverty in pre and post liberalization periods- Impact of growth on poverty- PDS vs cash transfers, feasibility of universal basic income in India - Inequality in India in pre and post liberalization periods – Female Poverty – Multidimensional Poverty – **Direct Benefit Transfer (DBT)** – **Financial Inclusion and Inclusive Growth** – **Digital Divide and Social Inclusion.**

Unit 5: Social Sector

Social Issues Gender gap in India and trends in female labour force participation rates, factors determining female labour force participation- Employment: changing nature of employment in India, "jobless growth"- Labour in informal sector- India's demographic transition – Gender and Child budgeting – Paradigm shift to Human Development – HDI, PQLI – **National Education Policy (NEP) 2020** – **Skill India and Future of Work** – **Gig and Platform Economy** – **Universal Health Coverage and Health Infrastructure Development.**

Text Books

1. **Misra, S. K., &Puri, V. K.***Indian Economy*. McGraw Hill Education (India) Pvt. Ltd., New Delhi, Latest Edition.
2. **Dutt, R., &Sundharam, K. P. M.***Indian Economy*. S. Chand Publishing, New Delhi, Latest Edition.
3. **Kapila, Uma.***Indian Economy: Performance and Policies*. AF Press (Academic Foundation), New Delhi, Latest Edition.

Reference Books

1. **Jalan, Bimal.***The Indian Economy: Problems and Prospects*. Penguin Random House India.
2. **Ahluwalia, I. J., & Little, I. M. D. (Eds.).***India's Economic Reforms and Development: Essays for Manmohan Singh*. Oxford University Press.
3. **Ramesh Singh.***Indian Economy*. McGraw Hill Education, Latest Edition.
4. **Uma Kapila (Ed.).***Indian Economy Since Independence*. Academic Foundation.

Web Resources

1. **Ministry of Finance, Government of India** – Budget, Economic Survey, Fiscal Policy, and GST. https://www.indiabudget.gov.in
2. **NITI Aayog** – Viksit Bharat @2047, Sustainable Development Goals (SDGs), and Policy Reports. https://www.niti.gov.in
3. **Reserve Bank of India (RBI)** – Monetary Policy, Financial Inclusion, Digital Payments (UPI), and Financial Reports. https://www.rbi.org.in
4. **Ministry of Statistics and Programme Implementation (MoSPI)** – National Income, Inflation, Employment, and Official Statistics. https://www.mospi.gov.in
5. **National Payments Corporation of India (NPCI)** – Unified Payments Interface (UPI) and Digital Payment Systems. https://www.npci.org.in

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the growth, structural transformation, and policy framework of the Indian economy.	**K2, K3**
CO2	To analyze the performance of the agricultural and industrial sectors and their role in economic development.	**K3, K4**
CO3	To evaluate fiscal developments, external sector performance, and recent economic reforms in India.	**K4, K5**
CO4	To assess poverty, inequality, financial inclusion, and government welfare programmes in India.	**K4, K5**
CO5	To examine social sector development, employment, human development, and emerging socio-economic challenges in India.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correction between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool- Cause and Effect Matrix)

3 – High Correlation
2 – Moderate Correlation
1 – Low Correlation
0 – No Correlation

SEMESTER – I

CORE – III

26UPECO1C03 STATISTICS FOR ECONOMICS

Course Objective

1. To provide students with a comprehensive understanding of statistical methods, probability, sampling techniques, hypothesis testing, and statistical decision-making **for economic research and policy analysis**.
2. To enable students to apply **modern statistical tools, data analytics, statistical software, and forecasting techniques** for analyzing economic data and supporting **evidence-based decision-making**.

Unit I: Probability

Probability – Addition and Multiplication Theorems – Conditional Probability – Discrete and Continuous Random Variables – Mathematical Expectation – Bayes' Theorem – Theoretical Distributions: Binomial, Poisson and Normal – **Central Limit Theorem** – **Probability Applications in Economic Decision Making** – **Introduction to Big Data and Data Analytics**.

Unit II: Sampling and Hypothesis Testing

Sampling Theory – Types of Sampling – Sampling Distributions – Parameter and Statistic – Testing of Hypothesis – Level of Significance – Type I and Type II Errors – Standard Error – Properties of Estimators – **Sample Size Determination – Non-parametric Tests (Introduction)** – **Applications using Statistical Software (SPSS/R)**.

Unit III: Test of Significance Large and Small Sample

Difference between Large and Small Samples – Tests of Significance for Large Samples – Tests for Two Means and Standard Deviations – Test for Proportions – Confidence Intervals – Small Sample Tests – t-test – Paired t-test – Chi-square Test – Test of Goodness of Fit – **Correlation and Simple Linear Regression** – **Interpretation using Statistical Software**.

Unit IV: Analysis of Variance

F-test – Assumptions of F-test – Analysis of Variance (ANOVA) – Assumptions – One-Way and Two-Way ANOVA – **Multiple Comparison Tests (Introduction) – Introduction to Multiple Regression Analysis** – **Applications in Economic Research**.

Unit V: Statistical Decision Theory

Statistical Decision Theory – Maximin Criterion – Minimax Criterion – Bayes Criterion – Expected Monetary Value (EMV) – **Expected Opportunity Loss (EOL)** – Decision Tree Analysis – **Risk Analysis** – **Forecasting Techniques** – **Introduction to Machine Learning Concepts in Economic Forecasting** – **Artificial Intelligence in Data-driven Decision Making**.

Text Books

1. Gupta S.P., Statistical Methods, Sultan Chand and Sons, New Delhi, 2017.
2. Anderson, Sweeney and Williams, "Statistics for Business and Economics",Cengage, 2014.

References:

1. Aggarwal. Y.P (2002), "Statistics Methods – Concepts Application and Computation", Sterling Publishers Private Ltd., New Delhi.
2. Vittal P.R.,Mathematical Statistics, Margham Publications
3. Pillai R.S.N. andBagavathi V (2010), Statistics, Sultan & amp; Chand Sons, NewDelhi.

Web Resources

1. https://mospi.gov.in | Ministry of Statistics and Programme Implementation (MoSPI) – Official statistics, surveys, national accounts, and statistical reports.
2. https://www.rbi.org.in | Reserve Bank of India (RBI) – Statistical data, monetary policy, financial statistics, and annual reports.
3. https://www.nss.gov.in National Sample Survey (NSS) – Household surveys, employment, consumption, and socio-economic statistics.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the concepts of probability, probability distributions, and sampling techniques used in statistical analysis.	**K2, K3**
CO2	To apply hypothesis testing methods and statistical inference for analyzing economic data.	**K3, K4**
CO3	To evaluate statistical tests, correlation, regression, and analysis of variance for research applications.	**K4, K5**
CO4	To assess statistical software outputs and interpret quantitative results for economic decision-making.	**K4, K5**
CO5	To examine statistical decision theory, forecasting techniques, and data-driven models for policy analysis.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correlation between PSOs and COs

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

3 – High Correlation 2 – Moderate Correlation 1 – Low Correlation 0 – No Correlation

SEMESTER - I

ELECTIVE – I (1)

26UPECO1E01 CLASSICAL ECONOMIC THOUGHT

Course Objectives

1. To trace the ideas of Modern Economists **and their relevance to contemporary economic issues and policy making**.
2. To understand the contribution of economists **towards economic development, globalization, sustainability, and the digital economy**.

Unit I: Classical Economic Thought

Economic ideas of Irving Fisher – Quantity Theory of Money – Theory of Interest – Joseph Alois Schumpeter – Method of Study – Deductive Method – Inductive Method – Theory of Economic Development – Role of Entrepreneur – Innovation – Business Cycles – Capitalism and Socialism – J.K. Galbraith – Objective of Economic Progress – Concept of Countervailing Power – Economic Concepts from Thirukkural – Sangam Literature – **Schumpeter and Innovation in the Digital Economy** – **Entrepreneurship and Start-up Ecosystem** – **Behavioural Insights in Economic Decision Making**.

Unit II: Neo Classical Economic Thought

Ragnar Nurkse – Foreign Resources – Capital Formation – Disguised Unemployment – Joan Robinson – Imperfect Competition – F.Y. Edgeworth – Mathematical Economic Analysis – Three-Dimensional Utility – **Market Power in the Digital Economy** – **Platform Competition and Network Effects** – **Contemporary Applications of Mathematical Economics**.

Unit III: Keynesian Economic Thought

Lord Lionel Robbins – Definition of Economics – Causes of Depression – Milton Friedman – Quantity Theory of Money – Permanent Income Hypothesis – Friedman and Savage Hypothesis – Paul A. Samuelson – Impact of Keynesian Economics – Revealed Preference Theory – Business Cycles – Social Welfare Function – Samuelson's Utility Possibility Approach – **Inflation Targeting and Monetary Policy** – **Macro economic Policy after the COVID-19 Pandemic** – **Central Bank Digital Currency (CBDC) and Monetary Policy**.

Unit IV: Post Keynesian Economic Thoughts

Ideas of Modern Indian Economists – R.K. Mukerjee – Institutional Theory of Economics – Regional Economics – Ecological Theory of Population – Planning in India – J.K. Mehta – Static and Dynamic Economics – Economics of Welfare – Economics of Growth and Development – Economics of Fast – **Institutional Economics and Sustainable Development** – **Green Growth and Environmental Economics** – **Inclusive Development and Human Well-being**.

Unit V: Indian Economists

C.N. Vakil – Planning – Wage-Goods Model – Role of Technological Progress – Poverty – Deficit Financing and Public Expenditure – V.K.R.V. Rao – Economic Activities – Institutional

Development – Deficit Financing – Fiscal Policy – Human Factor in Economic Growth – Amartya Kumar Sen – Poverty and Famine – Poverty and Inequality – Concept of Capability – Entitlement – Choice of Techniques – **NITI Aayog and Contemporary Development Planning – Sustainable Development Goals (SDGs) and Inclusive Growth – Digital Public Infrastructure and Human Development**.

Text Books

1. Kulshrestha, U. C. (2024). *History of Economic Thought*. Lakshmi Narain Agarwal.
2. Sankaran, S. (2023). *A History of Economic Thought*. Margham Publications.
3. Jhingan, M. L., Girija, M., & Sasikala, L. (2023). *History of Economic Thought*. Vrinda Publications.

Reference Books

1. Medema, S. G., & Samuels, W. J. (2024). *The History of Economic Thought: A Reader*. Routledge.
2. Srivastava, P. (2023). *Economic Thinkers*. DND Publications.
3. Backhouse, R. E. (2024). *The Penguin History of Economics*. Penguin Books.
4. Blaug, M. (2023). *Economic Theory in Retrospect* (6th ed.). Cambridge University Press.
5. Sen, A. (2023). *Development as Freedom*. Oxford University Press.

Web Resources

1. https://www.econlib.org | Library of Economics and Liberty – History of Economic Thought and classical economists.
2. https://www.exploring-economics.org | Exploring Economics – Pluralist approaches and modern economic thought.
3. https://www.imf.org | International Monetary Fund – Contemporary macroeconomic thought and policy.
4. https://www.worldbank.org | World Bank – Development economics and global economic policy.
5. https://www.niti.gov.in | NITI Aayog – Indian economic policy, planning, and development.
6. https://www.rbi.org.in | Reserve Bank of India – Monetary policy and contemporary economic developments.

All bold text indicates the newly added or updated curriculum topics aligned with **NEP 2020**, **UGC Learning Outcome-based Curriculum Framework (LOCF)**, and current developments in economics (2025–2026).

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the fundamental concepts and contributions of Classical economic thinkers and their relevance to economic theory.	**K2, K3**
CO2	To analyze the contributions of Neo-Classical economists and their applications in contemporary economic analysis.	**K3, K4**
CO3	To evaluate the contributions of Keynesian and Post-Keynesian economists to macroeconomic theory and policy.	**K4, K5**
CO4	To assess the contributions of Indian economists to economic planning, development, welfare, and public policy.	**K4, K5**
CO5	To examine the relevance of Classical and modern economic thought in addressing contemporary economic issues, sustainable development, and the digital economy.	**K4, K5**

K1– Remember, K2– Understand, K3– Apply, K4– Analyze, K5– Evaluate, K6– Create

Co-Po Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to Pos	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correlation between PSOs and COs

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

- **3 – High Correlation**
- **2 – Moderate Correlation**
- **1 – Low Correlation**
- **0 – No Correlation**

SEMESTER - I

ELECTIVE – I (2)

26UPECO1E02 RURAL ECONOMICS

Course Objectives

1. To provide comprehensive understanding of rural economy, demographic occupational programmes etc.
2. To understand the sustainable rural development and emerging rural transformation.

Unit I: Introduction to Rural Economics

Nature and Scope - Inter-disciplinary approach – Components - Structure and Characteristics - Pre and Post-independence - Rural Development: Meaning, Nature and Scope - Factors affecting Rural Growth – Indicators of rural development.

Unit II: Rural Resources and Rural development theories

Rural Resources: Nature, Types and Magnitude - Rural Resources Management and Development - Application of Technology – Problems and prospects - W.W. Rostow's – Lewis - Fei-Ranis and Gandhian Approach to Rural Development – Sustainable livelihood approach.

Unit III: Rural Demography and Occupational Structure

Demography: Population Size, Sex and Age Composition - Density of Population- Population Problems and Challenges – Family Welfare Measures in Rural India - Occupational Structure: Nature and distribution of Rural Occupations in India – LFP and WFP in India – Rural Labour market – Rural health, education and nutrition.

Unit IV: Rural Poverty and Unemployment

Rural Poverty: Meaning, Estimates, Causes and Consequences – Multidimensional Poverty – Unemployment: Meaning, Types and Magnitude of Rural Unemployment - Causes and Consequences - National Programmes for Rural Development - Community Development Programmes and Employment Guarantee Schemes.

Unit V: Rural Empowerment Programmes

Bharat Nirman, Provisions of Urban Amenities in Rural Area (PURA), MGNREGA – VB G - RAM G – PM KISAN - Agencies for Rural Development: Government, Semi-Government Organisations, Co-Operative Institutions, Non-Government Organisations - Voluntary Agencies for Rural Development – SHGs and Microfinance – Skill Development and Entrepreneurship.

Text Books:

1. Vasant Desai: Rural Development in India, Himalaya Publishing House, Mumbai, 2024 (2^{nd} edition)
2. Dutt and Sundaram- Indian Economy, S.Chand Publications, New Delhi, 2024

References Books:

1. Singh, K., &Shishodia, A. (2016). Rural development: Principles, policies, and management. SAGE Publishing India.
2. Katar Singh & Anil Shishodia – Rural Development: Principles, Policies and Management (4^{th} edition), Atlantic Publishers, 2024.
3. Ramesh Chand et al., Indian Agriculture Towards 2030, FAO United Nations, 2022.
4. Jagetiya, Sanrabh Singh & Chetna Kumawat, Rural Economy & Sustainable Development, Scientific Publishers, New Delhi, 2025.

Web Resources:

1. https://www.kobo.com/us/en/ebooks/public-finance
2. https://www.amazon.in/PUBLIC-FINANCE-AMBAR-GHOSH-ebook/dp/B07W5F2P1Q
3. https://www.niti.gov.in/sites/default/files/2021-08/11_Rural_Economy_Discussion_Paper_0.pdf

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able

No.	Course Outcomes	K-Levels
CO1	To understand the concepts of rural economics	K1, K2
CO2	To analyse the available natural resources and examine the theories of rural development	K1, K2
CO3	To explore the demographic characteristic features of rural population	K1, K2
CO4	To analyse the poverty and unemployment level and available developmental programmes	K4, K5
CO5	To evaluate rural financial institutions & credit systems for rural development	K4
CO6	To apply economic theories to solve the rural development problems	K3, K6

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5					
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER - I

ELECTIVE – I (3)

26UPECO1E03 AGRICULTURAL ECONOMICS

Course Objectives

1. To provide knowledge base on the features and issues of Agriculture.
2. The course enables the students to understand and evaluate the cropping pattern in an Economy

Unit I: Agricultural Economics

Introduction, Scope and Significance of Agricultural Economics - Inter-Sectoral Linkages – Production Function Analysis - Relevance to Farm Production Economics - Productivity Trends; Low production and Productivity: Causes, Consequences and Measures - Farm size, productivity and efficiency in Indian Agriculture - A.K. Sen's Hypothesis - Role of Technology in Agriculture - Structural Changes in Agriculture.

Unit II: Agricultural Labour

Agricultural Labour: Definition and Characteristics – Rural Labour Market- Rural Unemployment: Types, Consequences and Remedial Measures- Agricultural Wages in India – Male -Female Wage Differentials.

UNIT III: Agricultural Prices and Finance

Agricultural Prices-Reasons for Fluctuations in Prices-Procurement /Support Prices-Minimum Support Price - Buffer Stocks- Commission for Agriculture Cost and Prices: objectives, functions and role in stabilization of Agriculture Prices- Commodity Markets-Agricultural Finance: Meaning, Types, Sources- and Commercial Banks and NABARD- Farm Capital - Meaning, Types, and Marginal Efficiency of Farm Capital and Capital formation in Agriculture.

Unit IV Information Technology and Agriculture

Role of Information Technology and telecommunication in marketing of agricultural commodities – Weather Forecasting- electronic auctions- Digital Mandi -Kisan Call Centres -e-Choupal- Use of Geographic Information System and Global Positioning System- Remote Sensing and Drones.

Unit V: Globalisation and impact on Agriculture

Role of MNCs- Globalisation of Indian Economy: Problems and Prospects of Indian Agriculture-Impact of WTO on Indian Agriculture- Agreement on Agriculture (AoA) -WTO Agriculture Subsidies Boxes and Criticisms.

Textbooks

1. Subba Reddy S ,Raghu Ram P ,T.V NeelakantaSastry and I.Bhavani Devi(2019) Agricultural Economics , Second Edition ,Oxford & IBH Publishing Co Pvt.Ltd

2. Dantwala M.L (ed) (1991), Indian Agricultural Development since Independence(Oxford and IBH Publishing company private limited, New Delhi).

References:

1. Barkley, A., & Barkley, P. W. (2016). Principles of agricultural economics. Routledge.
2. Sloman, J., Norris, K., & Garrett, D. (2013). Principles of economics. Pearson Higher Education AU.
3. Colman, D., & Young, T. (1989). Principles of agricultural economics: markets and prices in less developed countries. Cambridge University Press.

Web resources:

1. http://www.rvskvv.net › images › Principles-of-Agri...
2. https://zalamsyah.files.wordpress.com › 2018/02 › 2...
3. http://archive.mu.ac.in › myweb_test › M.A. PAR...

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the Relevance of Agricultural Economics	K1, K2, K4
CO2	Review the role of Agricultural Labour	K4, K5
CO3	Analyze the trends in Agricultural Prices and the importance of Finance in the Agricultural Sector	K1, K3, K4
CO4	Evaluate the importance of Marketing in Agriculture	K1, K3
CO5	Identify the impact of Globalisation and WTO on Indian Agriculture	K5, K4

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	3	3	2	2	3	2
CO3	3	3	2	2	3	3
CO4	3	3	2	2	3	2
CO5	3	2	2	2	3	2
Weightage	14	14	12	13	14	12
Weighted percentage of Course Contribution to Pos	2.8	2.8	2.4	2.6	2.8	2.4

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

SEMESTER - I

ELECTIVE – II (1)

23UPECO1E04 REGIONAL ECONOMICS

Course Objectives

1. To equip the analytical skills required to analyse the regional economic issues
2. To understand Regional economic growth in India

Unit I: Introduction to Regional Economics

Nature and scope of regional economics – Regional economics and regional science – Regional and Urban Economics: Need for a separate study of regional economics – Concept and types of regions: Administrative, Planning, Agro-climatic, Economic and Functional regions.

Unit II: Approaches to regional growth

Approaches to regional growth: Models of regional, inter-regional and multi-regional models; Export base models – Location Theory - Gravity models – Shift-share analysis

Unit III: Theories of regional economic growth

Neoclassical models – Dualistic models: Social dualism – Labour surplus model of Arthur Lewis- Migration and development: Harris-Todaro – Core-Periphery models: Myrdal's Cumulative Casuation Hypothesis – Regional Input-output models - New Economic Geography models: Paul Krugman's model of industrial location and development

Unit IV: Regional economic growth in India

Administrative regions in India: State, District, Taluk and Village; Urban and Rural regions - Concept, definition and measure of State Income (GSDP) – Rural and urban GDP – Differences in estimation of national income (GDP) and State Income (GSDP) - Measurement of interregional economic growth at State level

Unit V: Regional Aspects of Stabilization and Growth Policy

Post-war Regional Cyclical Behaviour and Policy Measures for Stabilization, Theories to Explain Regional Differences in Growth, Fiscal Programmes, Tax and Transfer Programmes, Fiscal Responses of Power Level Governments, Regional Orientation to Policy Programmes and Central Responsibility.

Text books

1. Capello Roberta. (2016). Regional Economics. Routledge (New York).
2. Temple, M. (1994). *Regional economics*. St. Martin's Press.

References

1. Harry W Richardson (1973): Regional Growth Theory, Macmillan.
2. Harry W. Richardson. (1970). Elements of Regional Economics. Penguin Books (New York).
3. Harry W Richardson (1969): Regional Economics: Location theory, Urban structure and regional change, Weidenfeld & Nicolson (London)

Web resources

1. http://www.rri.wvu.edu/WebBook/Giarratani/contents.htm
2.https://researchrepository.wvu.edu › cgi › viewcontent
3. https://ddceutkal.ac.in › Syllabus › MA_Economics

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	understand the Nature and scope of regional economics and its need	K1, K3, k4
CO2	Discuss the Models of regional, inter-regional and multi-regional models	K4,K5
CO3	Evaluate the various theories of regional economic growth	K2, K3,K4
CO4	Describes the Measurement of interregional economic growth at State level	K4,K4
CO5	apply Regional Aspects of Stabilization and Growth Policy	K1,K4,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO1	2	3	3	3	2	3
CO2	3	2	2	3	2	3
CO3	3	2	3	2	2	2
CO4	3	3	3	2	3	3
CO5	3	2	2	2	3	2
Weightage	14	12	14	14	12	13
Weighted percentage of Course Contribution to Pos	2.8	2.4	2.8	2.8	2.4	2.6

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER- I

ELECTIVE – II (2)

23UPECO1E05 WELFARE ECONOMICS

Course Objective:

1. To enable students to understand the fundamentals as well as development in the field of Welfare Economics.
2. To show the importance of welfare Economics compared to that of wealth Economics

Unit I: Introduction to Welfare Economics

Welfare Economics: Meaning – Concepts: Individual and Social Welfare – Value Judgments – Preferences and Utility – Utility Function: Properties – Interpersonal Comparisons of Utility: Degrees of Interpersonal Comparability – Social Welfare Function – Bentham's Utilitarianism – Pigouvian Welfare Economics – **Sustainable Welfare and Green Economy** – **Well-being Indicators and Happiness Economics**.

Unit II: Approaches to Welfare

Cardinal and Ordinal Approaches – Hicks's Four Measures of Consumer's Surplus – Partial and General Equilibrium – Edgeworth Box Diagram – General Equilibrium of Production and Exchange – **Behavioural Welfare Economics** – **Digital Economy and Consumer Welfare**.

Unit III: Pareto Optimality Conditions

Pareto-Optimality Criterion: Definition – Marginal Conditions of Pareto Optimum – Perfect Competition and Pareto Optimality – Exceptions – Externalities – Public Goods and Market Failure – Theory of Second Best – **Equity and Efficiency Trade-off**– **Carbon Pricing and Sustainable Resource Allocation**.

Unit IV: New Welfare Economics

New Welfare Economics – Kaldor-Hicks Compensation Criterion – Utility Possibility Curve – Shortcomings – Scitovsky Paradox – Scitovsky's Double Criterion of Welfare – Little's Criterion – **Inclusive Growth and Social Protection** – **Universal Basic Income (UBI) and Direct Benefit Transfers (DBT)**.

Unit V: Theories of Social Choice

Utility Possibility Curve and Frontier – Grand Utility Possibility Curve – Iso Welfare Curves – Arrow's Impossibility Theorem – AmartyaSen's Capability Theorem – Rawls' Theory of Social Justice – **Multidimensional Poverty Index (MPI)** – **Sustainable Development Goals (SDGs) and Human Development** – **Artificial Intelligence, Ethics, and Social Welfare**.

Text Books

1. **Jhingan, M. L**, A Textbook of Economic Theory. Vrinda Publications Pvt. Ltd., Latest Edition.
2. **Ahuja, H. L.**Microeconomic Theory. S. Chand Publishing, New Delhi, Latest Edition.
3. **Jhingan, M. L.***Advanced Economic Theory: Microeconomic Analysis*. Vrinda Publications (Earlier editions were widely available through S. Chand distribution in some regions), Latest Edition.

References

1. Pigou, A. C.*The Economics of Welfare*. Macmillan, Latest Edition.
2. Koutsoyiannis, A.*Modern Microeconomics*. Palgrave Macmillan, Latest Edition.
3. Varian, Hal R.*Intermediate Microeconomics: A Modern Approach*. W. W. Norton & Company, Latest Edition.
4. Nicholson, Walter, & Snyder, Christopher.*Microeconomic Theory: Basic Principles and Extensions*. Cengage Learning, Latest Edition.
5. Sen, Amartya.*Commodities and Capabilities*. Oxford University Press, Latest Edition

Web Resources

1. https://www.nobelprize.org, Nobel Prize – Economic Sciences, lectures, and contributions to Welfare Economics.
2. https://www.worldbank.org, World Bank – Poverty, inequality, human development, and social welfare reports.
3. https://hdr.undp.org, United Nations Development Programme (UNDP) – Human Development Reports and Human Development Index (HDI).

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the concepts, theories, and significance of welfare economics in promoting individual and social welfare.	**K2, K3**
CO2	To analyze different approaches to welfare economics, consumer welfare, and general equilibrium.	**K3, K4**
CO3	To evaluate Pareto optimality, market failure, externalities, and resource allocation in welfare economics.	**K4, K5**
CO4	To assess the principles of new welfare economics, compensation criteria, and social protection measures.	**K4, K5**
CO5	To examine theories of social choice, social justice, human development, and contemporary welfare issues.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correction between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool- Cause and Effect Matrix)

3 – High Correlation

2 – Moderate Correlation

1 – Low Correlation

0 – No Correlation

SEMESTER - I

ELECTIVE – II (3)

23UPECO1E06 ENVIRONMENTAL ECONOMICS

Objectives

1. The main objective of this course is to familiarize the students with the role of infrastructure in economic development and growth, and key issues in financing, governance, and inter-regional disparities.
2. This paper also aims to explain the major categories of infrastructure, including physical and social infrastructure, with special reference to the Indian economy and emerging infrastructure initiatives.

Unit I: Introduction

Introduction– Infrastructure and Economic Development – Infrastructure as a Public Good – Social and Physical Infrastructure – Special Characteristics of Public Utilities – The Peak-Load and Off-Load Problem – Dual Principle Controversy – Economies of Scale and Joint Supply – Marginal Cost Pricing versus Other Methods of Pricing in Public Utilities – **Digital Infrastructure and Digital Public Infrastructure (DPI)** – **Sustainable and Green Infrastructure** – **National Infrastructure Pipeline (NIP)** – **PM Gati Shakti National Master Plan**.

Unit II: Transport Economics

Transport Economics – Structure of Transport Costs and Location of Economic Activities – Demand for Transport – Models of Freight and Passenger Demand – Modal Choice – Cost Functions in the Transport Sector – Principles of Pricing – Special Problems of Individual Modes of Transport – Inter-modal Coordination in the Indian Context – **Multimodal Logistics and Integrated Transport Systems** – **Electric Mobility (EVs) and Sustainable Transportation** – **Smart Cities and Urban Transport Infrastructure**.

Unit III: Energy Economics – I

Energy Economics– Primacy of Energy in the Process of Economic Development – Factors Determining Demand for Energy – Effects of Energy Shortages – Energy Conservation – Renewable and Non-conventional Sources of Energy – Energy Modelling – Search for an Optimal Energy Policy in the Indian Context **– Energy Transition and Net-Zero Emissions** – **Green Hydrogen Mission** – **Solar and Wind Energy Development** – **Energy Security and Climate Change**.

Unit IV: Energy Economics – II

Electricity, Gas and Water Supply – Bulk Supply and Pricing of Electricity – Relative Economics of Thermal, Hydel and Nuclear Power Plants – National Power Grid – Financing Water Utilities – Urban and Rural Water Supply – Exploitation of Natural Gas – Pricing Problems – **Smart Grids and Smart Metering** – **Water Resource Management and Water**

Sustainability – **Electric Vehicle Charging Infrastructure** – **Battery Energy Storage Systems (BESS)**.

Unit V: Social Infrastructure

Social Infrastructure – Education and Economic Growth – Universal, Free and Primary Education – Structure of Higher Education and Problems of Financing in India – Human Resources and Human Capital Development – Health Dimensions of Development – Determinants of Health: Poverty, Malnutrition, Illiteracy and Lack of Information – Demand and Supply of Health Care – Financing of Health Care – Inequalities in Health: Class and Gender Perspectives – Institutional Issues in Health Care Delivery – **National Education Policy (NEP) 2020** – **Digital Health and Telemedicine** – **Universal Health Coverage (UHC)** – **Skill Development and Future of Work** – **Digital Education and E-learning**.

Text Books

1. **Rangarajan, C.** *Infrastructure and Economic Development in India*. Oxford University Press, New Delhi, Latest Edition.
2. **Grigg, Neil S.** *Infrastructure Economics and Policy*. McGraw-Hill Education, Latest Edition.
3. **Misra, S. K., &Puri, V. K.** *Indian Economy* (Infrastructure Chapters). McGraw Hill Education (India) Pvt. Ltd., Latest Edition.

Reference

1. **Misra, S. K., &Puri, V. K.** *Indian Economy* (17th ed.). McGraw Hill Education, 2025.
2. **Government of India.** *Economic Survey 2024–25*. Ministry of Finance, 2025.
3. **NITI Aayog.** *National Infrastructure Pipeline (NIP): Progress Report*. Government of India, 2023.

Web Resources

1. https://www.niti.gov.in, NITI Aayog – National Infrastructure Pipeline (NIP), PM Gati Shakti, infrastructure policy, and development strategies.
2. https://powermin.gov.in, Ministry of Power – Electricity, smart grids, renewable energy integration, and power sector reforms.
3. https://morth.nic.in, Ministry of Road Transport and Highways – Transport infrastructure, highways, logistics, and road development.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the role of infrastructure in economic development and distinguish between physical and social infrastructure.	**K2, K3**
CO2	To analyze transport infrastructure, logistics systems, and their contribution to economic growth.	**K3, K4**
CO3	To evaluate energy resources, energy policies, renewable energy, and sustainable energy development.	**K4, K5**
CO4	To assess the management and financing of electricity, water, and other public utility infrastructure.	**K4, K5**

CO5	To examine the role of social infrastructure in education, health, human capital development, and inclusive growth.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correction between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool- Cause and Effect Matrix)

3 – High Correlation
2 – Moderate Correlation
1 – Low Correlation
0 – No Correlation

SEMESTER – II

SEMESTER – II

CORE – IV

26UPECO1C04 MONETARY ECONOMICS

Course Objectives:

1. The course is devoted to the main issues in modern monetary economics.
2. The factors behind money demand and supply are studied through the set of comprehensive monetary models.

Unit I: Classical Theories of Money

Demand for Money Quantity theories of money – Fisher and Cambridge- Keynesian monetary theory- James Tobin's portfolio analysis of money demand- Don Patinkin`s Integration– Real Balance Effect- Milton Friedman's reformulated quantity theory.

Unit II: Supply of Money

Supply of Money Types and determinants of money supply – money multiplier- Theories of interest rate – classical – Keynes – Hicks – Hansen.

Unit III: Money and Capital Market

Money and Capital Market Significance and functions of Money market and capital market - Role of financial intermediaries – Effects of financial intermediation- Non-banking financial institutions – Gurley and Shaw theory.

Unit IV: Banking and its functions

Banking Functions of Commercial banks - Credit creation – process and limitations Role of Commercial banks after nationalization – after reforms- Role of RBI – Regulation of money supply and credit – Banking reforms since 2014 – Raguram Rajan Committee Report -2007.

Unit V: Monetary Policies

Monetary Policy Objectives and Instruments of Monetary policy– Limitations of monetary policy- Monetarism and Keynesianism – Comparison - Supply side policies.

Text Books:

1. Bain, Keith and Howells, Peter: Monetary Economics: Policy and its theoretical Basis, Palgrave Macmillian, 2nd Edition, 2009
2. Mishkin .S. Frederic-The Economics of Money ,Banking and Financial Markets, Pearson Publication, 11th Edition, 2015

References:

1. Jhingan, M.L. (2005), Monetary Economics[Konark Publication, New Delhi].

2. Sundaram, K.P.M. (2003), Money, Banking and International Trade [Vikas, New Delhi].
3. Vaish, M.C. (2004), Money, Banking and International Trade [New Age International, New Delhi].

Web Resources:

1. https://www.amazon.in/Handbook-Monetary-Economics-Benjamin-Friedman-ebook/dp/B00EXOTZ96
2. https://link.springer.com/book/10.1057/9780230280854
3. https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	To list out and outline the theories of money.	K1,K2,
CO2	To explain construct and distinguish various determinate of money supply and multiplier.	K2,K3,K4,
CO3	To label, explain and evaluate the capital market.	K1,K2,K5
CO4	To define, illustrate and importance of banking sector.	K1,K2,K5,
CO5	To interpret and make use of monetary policy.	K2,K3,

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value
1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER - II

CORE – V

26UPECO1C05 HEALTH ECONOMICS

Course Objective:

1. To equip students on the role of health in Economic Development with health policies in India.
2. To have an insight of the human capital formation.

UNIT 1: Introduction to Health Economics

Health and Economic Development – Determinants - Economic Dimensions of Healthcare – Healthcare Models- Beveridge Model, Bismarck Model and Out-of-pocket Model – Demand for Healthcare – Health Care Accessibility– Grossman Model– Supply of Healthcare – Health Care Delivery System- World Health Organization- Importance – Alma Ata Declaration.

UNIT 2: Health Indicators and Evaluation

Health Indicators – Infant Mortality Rate – Maternal Mortality Rate – Child Mortality Rate) – Morbidity Rate – Global Burden of Disease - Communicable and Non Communicable Diseases - Lifestyle Disease-Disability Adjusted Life Years (DALY) – Quality Adjusted Life Years (QALY) – Economic evaluation of health care: Cost Benefit Analysis – Cost Effective Analysis.

UNIT 3: Health Scenario in India

Health in India- Ministry of AYUSH – National Health Mission (NHM) – Rural Healthcare system –National Rural Health Mission (NRHM) – Accredited Social Health Activist (ASHA) Workers –Urban Healthcare system – NUHM (National Urban Health Mission) – National Family Health Survey – Alternative sources of Medicine in India – Medical Tourism – Ministry of AYUSH – World Health Organization (WHO): Importance and role in India.

UNIT 4: Health Care Management and Reforms

Health care Financing - Health Management – Prevention – Curative– Palliative – Public Healthcare System- Private Healthcare System- Privatization and Health Care- Health Education- Health Infrastructure- Pre and Post COVID Health Sector Reforms.

UNIT 5: Health Insurance

Health Insurance: Definition and Types – Health Insurance and Market Failure- Information Asymmetries- Government Health Insurance – Need – Types – Schemes -Private Health Insurance.

Text Books

1. N.K. Anand & Shikha Goel (2006) Health Economics AITBS Publishers India.
2. Charles E Phelps (2017) Health Economics Sixth Edition Routledge.

References:

1. Brijesh C. Purohit (2020) Economics Of Public And Private Healthcare And Health Insurance In India Sage Publications Private Limited.
2. Jery D, Josephin Dr.Jeyasingh, Dr.D. Solomon Raj (2016) Health Economics, Greative Crows.
3. Kesavan Sreekantan Nair (2022) Health Economics and Financing New Century Publications

Web Resources

1. https://www.who.int/
2. https://mohfw.gov.in/
3.https://www.ayush.gov.in/

Course Outcomes (COs):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the importance of Health in Economic Development.	K1, K2,K3
CO2	Gain Knowledge on the various Health Indicators	K3, K4, K5
CO3	Evaluate the importance of Public and Private Health care systems	K3, K4, K5
CO4	Explore health of the economy during pandemic and non-pandemic situations	K4, K5
CO5	Compare the various Health Insurance Schemes	K2, K3, K4

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	3	3
CO2	3	3	2	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	14	15	15
Weighted percentage of Course Contribution to Pos	3	3	2.8	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)
Assign the value
1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER – II

CORE – VI

26UPECO1C06 MATHEMATICAL ECONOMICS

Course Objectives:

1. The paper aims to introduce students to the basic building blocks of mathematical analysis used in modern economic theory.
2. To equip the students with mathematical tools and to optimize both static and dynamic economic environment.

Unit I: Introduction to Linear Algebra

Sets - Basic concepts - Ordered sets – Relations - Order relations - Metric Spaces - open and closed sets – Convergence - Linear Algebra, Vectors, matrices, inverse, simultaneous linear equations, Cramer's rule for solving system of linear equations, input-output model, Hawkins - Simon condition, open and closed models, quadratic equation, characteristic (eigen) roots and vectors.

Unit II: Differential Calculus

Introduction to Functions, Limits and Continuity, Derivatives –Concept of maxima & minima, elasticity and point of inflection. Profit & revenue maximization under perfect competition, under monopoly. Maximizing excise tax revenue in monopolistic competitive market, Minimization of cost etc.

Unit III: Optimization Techniques with Constraints

Functions of several variables, Partial and total, economic applications, implicit function theorem, higher order derivatives and Young's theorem, properties of linear homogenous functions, Euler's theorem, Cobb – Douglas Production Function - Constrained Optimization - Lagrangian Multiplier Technique - Vector and Matrix Differentiation - Jacobian and Hessian Matrices – Applications - Utility maximization, Profit maximization and Cost minimization.

Unit IV: Linear and Non-Linear Programming

Optimization with Inequality Constraints - Linear Programming – Formulation - Primal and Dual - Graphical and Simplex method - Duality Theorem - Non-Linear Programming – Kuhn - Tucker Conditions - Economic Applications.

Unit V: Economic Dynamics

Differential Equations - Basic Ideas – Types - Solution of Differential Equations (Homogenous and Exact) - Linear Differential Equations with Constant Coefficients (First and Second Order) – Applications - Solow's Model – Harrod - Domar Model - Applications to Market models - Difference Equations – Types - Linear Difference Equations with Constant Coefficients (First and Second order) and solutions – Applications - Samuelson's Accelerator - Multiplier model - Cobweb model.

Textbooks:

1. Geoff Renshaw, (2016) Maths for Economics, 4E Oxford University Press.
2. Mabbet A J (1986) Workout Mathematics for Economists, Macmillan Master Series, 4th Edition London.

References:

1. Carter, M. (2001). Foundations of Mathematical Economics, MIT Press.
2. Chiang, A. C. and Wainwright, K. (2005). Fundamental Methods of Mathematical Economics, McGraw-Hill Education.
3. Dowling E. T., Mathematics for economists, Schaum Series (latest edition).

Web Resources

1. https://www.udemy.com/course/mathematics-for-economists-functions-and-derivatives/
2. https://www.classcentral.com/course/swayam-mathematical-economics-14187
3. https://www.coursera.org/learn/introduction-to-calculus

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the mathematical structure of standard economic theoretical framework	K1, K2, K4
CO2	Equip students with mathematical tools to solve optimization problems appear in economic theory	K2, K4, K5
CO3	Equip students with tools to read the technical writing appear in standard economic journals	K1, K3, K4
CO4	analyse the dynamics of macroeconomic policies in an economy	K1, K2, K4
CO5	analyse mathematically the dynamics of the growth process in an economy	K3, K2,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER - II

ELECTIVE – III (1)

26UPECO1E07 GENDER ECONOMICS

Course Objectives:

1. To evaluate the gender factor on demographic processes and economic development.
2. It study the contributions of women and their issues for empowerment.

Unit I: Introduction

Definition - Objectives - Importance - Women and work: unpaid, underpaid and casual work - Women in primary, secondary and tertiary sectors - Classification of work in Indian census and NSSO – Main workers, marginal workers, non-workers - Invisibility of women's work, problems in measurement - Non-recognition of women's work in national income accounting.

Unit II: Gender Inequality in Labor Market

Segmented Labor Market and Occupational Segregation - Gendered jobs, discrimination and Social Inequality - Sex Segregation at Work Place - Globalisation and its impact on gender - Women's participation in organised sector - Exploitation in unogranised sector - Gender issues at the work place.

Unit III: Social Empowerment

Women in Higher Education - Gender issues in Health, Environment, Family welfare Measures - Indecent representation of Women in media - Women in Difficult circumstances; Constitutional.

Unit IV: Economic Empowerment

Introduction – GDI - Role of Women in Economic Development – Female Poverty and Poverty alleviation programmes - Status of Women farmers and land rights - Women Entrepreneurs - Impact of Globalization on working women - National Policy for the empowerment of women 2001.

Unit V: Social issues and Women in Indian Planning

Issues in the Unorganized sector of Employment - Women’s work: Status and problems - problems of Dalit women - Invisibility of women in official data system - Absence of gender disaggregated data - Initiatives towards recognition of women as agents of development from sixth five year plan.

Text books

1. Eswaran, M. (2014). *Why gender matters in economics*. Princeton University Press.
2. Becchio, G. (2019). *A History of Feminist and Gender Economics*. Routledge.

References

1. Humphries, J. (1995). *Gender and economics*. Edward Elgar Publishing.
2. Dijkstra, G., &Plantenga, J. (2013). *Gender and economics: a European perspective*. Routledge.
3. Negra, D., & Tasker, Y. (2014). Introduction. Gender and recessionary culture. In *Gendering the Recession* (pp. 1-30). Duke University Press.

Web Resources

1. https://www.academia.edu › 9_Ch_1_Gender_Economi...
2. https://ftp.iza.org › .
3. https://www.oecd.org › derec › worldbankgroup

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the gender contribution to national income calculation	K1, K3
CO2	Describes the issues of wage discrimination and exploitation in unogranised sector	K3, K4
CO3	Explain the gender issues in Health, Environment, Family welfare Measures	K4, K5
CO4	Evaluate the impact of Globalization on working women and National Policy for the empowerment of women 2001	K1, K3, K4
CO5	Assess the initiatives towards recognition of women as agents of development from sixth five year plan.	K1, K4, K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO1	2	3	3	3	2	3
CO2	2	2	2	3	2	3
CO3	3	2	3	3	2	3
CO4	2	2	2	2	3	3
CO5	3	2	3	2	3	2
Weightage	12	11	14	15	12	14
Weighted percentage of Course Contribution to Pos						

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER- II

ELECTIVE – III (2)

26UPECO3E08 URBAN ECONOMICS

Course Objectives

1. To equip with theory and measurement of urban economic growth and development, spatial structure of cities and urbanization.
2. The course outlines the issues of urban poverty and its impact on urbanization.

Unit I: Introduction

Definition and Scope of Urban Economics - Sources – Trends on Urban Growth - Urban reclassification and physical boundaries – Urban agglomeration – Industrialization and services sector growth – Urbanization and globalization.

Unit II: Economics of Urbanization

The Process of urbanization: Nature and dimensions, factors initiating and perpetuating urbanization process - Characteristics stages - Classification of urban areas by demographic, geographical and economic criteria- Process of sub-urbanization and peri-urbanization.

Unit III: Theories of Urban Growth and spatial structure

Christaller's Central Place Theory - The Human Ecological Approach to Urban Growth - Urban Size: Ratchet-Rank Size Rule - Migration and urban economic growth: Harris-Todaro Model – Concepts of City Structure - The Minimization of Costs of Friction Hypothesis -Location Equilibrium of an Urban Firm - The Concentric Zone Hypothesis - Urban Residential Land Use Models: Alonso, Muth, Siegel, Park Burgess.

Unit IV: Urbanization and Labour Market

Urbanisation and Labour Market - Pull and Push Factors for Urbanisation in India - High Wages and Improved Infrastructure - Employment Opportunities and Educational facilities - Growth of formal and Informal economic activities - Labour Force Participation and Distribution of Workers.

Unit V: Urban Problems and Urban Planning

Over Population and congestion - Urban housing problem - Urban environment: Air, Water and Noise Pollution - Urban poverty and inequality - Urban Infrastructure: transport Water Supply, Sanitation and Solid waste management - Need for Urban Planning: Objectives and Techniques - Emerging Planning Process - Comprehensive Development Plan – Master Plan – Jawaharlal Nehru National Urban Renewal Mission - Smart Cities.

Text books

1. Shukla, V. (1996) Urbanization and Economic Growth, Himalaya Publishers Pvt. Ltd (New Delhi).

2. Robert L Bish and Hugh O Nourse (1975), Urban Economics and Policy Analysis, McGraw Hill Kogakusha Ltd (Tokyo).

References

1. O' Sullivan (2012), Urban Economics, McGraw Hill Higher Education (Boston).
2. Edwin S. Mills. (1987). Handbook on Regional and Urban Economics, Volume 2: Urban Economics. North-Holland (Amsterdam).
3. Duranton, G., & Strange, W. C. (1986). *Handbook of regional and urban economics: applied urban economics* (Vol. 3). Elsevier.

Web resources

1. https://link.springer.com › bfm:978-1-349-15661-0 › 1.pdf
2. https://www.academia.edu › Urban_economics_Arthur_O..
3. https://www.ysk-books.com › show › book › regional-a..

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	understand scope of urban economics and urban economic growth	K1, K2, K3
CO2	Describe the process of urbanisation and classification or urban areas	K3, K5
CO3	Evaluate the various theories of urban growth and spatial structure	K2, K4
CO4	Explain the urban Labour Market, Labour Force Participation and Distribution of Workers	K1, K2
CO5	Familiarize the urban problems and planning process.	K1, K4, K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	3	3	3	3	2	3
CO3	3	2	3	2	2	3
CO4	3	2	2	2	3	3
CO5	3	2	2	2	3	3
Weightage	14	12	13	14	12	15
Weighted percentage of Course Contribution to Pos	2.8	2.4	2.6	2.8	2.4	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER - II

ELECTIVE – III (3)

26UPECO1E09 INDUSTRIAL ECONOMICS

Course Objectives:

1. To enable the students to acquire knowledge relating to Industrial impact on the economy.
2. To understand the global impact of domestic industries in the Economy

Unit I: Introduction

Industrialisation - Meaning of Industrialization – Industrialization in India - Factors hampering Industrial development in India – Current status of the Indian Industrial Sector.

Unit II: Industrial Location

Theories of Industrial location Factors influencing Industrial Location measures of location – Patterns of industrialization – Hoffman, Simon Kuznets and Chenery-Concept of “Optimum Firm” – Factors determining optimum size of a firm.

Unit III: Industrial Organization

Structure and change- Public policy and industries and concentration: Concepts –Measures of monopoly – Control of monopoly-Industrial monopoly legislation- The Indian MRTP Act, 1969- Competition Act 2002 – Trade Union – Social Security Schemes.

Unit IV: Industrial Finance and Development Financial Institutions (DFIs)

Industrial Finance – Sources of Industrial Finance – Development Financial Institutions (DFIs) – National Level Financial Institutions – State Level Financial Institutions – Regulation and Supervision of Financial Institutions – Recent Policy Initiatives regarding Development Financial Institutions (DFIs) and BIFR.

Unit V: Issues in Indian Industry

Rationale-organization – Pricing policies – The question of efficiency – Performance of public sector in India – Evaluation of Industrial reform measures- Industrial policy since 1991 - Foreign capital and role of MNC in India - Recent policy measures.

Text Books:

1. Industrial Economics: An Introductory Textbook, R.R. Barthwal.
2. Industrial Economics, I.C. Dhingra.

References:

1. Divine, P.J. et al., (1978), An Introduction to Industrial Economics 3e [George Allen and Unwin, London]
2. Hay, D.A. and D.J.Morris (1979), Industrial Economics: Theory and Evidence [Oxford University Press, Oxford

3. Anup Chatterjee, (2012) "Industrial Policy and Economic Development in India – 1947 - 2012" – New Century Publications, New Delhi.

Web Resources:

1. https://www.amazon.in/Birth-Death-Consumers-Population-Studies-ebook/dp/B074VFY96J
2. https://www.taylorfrancis.com/series/international-population-studies/ashser1353
3. https://www.indiabudget.gov.in/economicsurvey/

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	To list out and outline the basic concepts of industrialization.	K1,K2,
CO2	To make use theories industrial location and industry the regional development.	K3,K5,
CO3	To interpret, develop and determine the structure of industrial organization.	K2,K3,K5,
CO4	To illustrate the sources of industrial finance.	K2,K3,
CO5	To summarize solve and priorities the issues.	K2,K3,K5,

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER- II

ELECTIVE – IV (1)

26UPECO3E10 RESOURCE ECONOMICS

Course Objectives

1. To provide students with an understanding of the availability, distribution, and utilization of natural resources for sustainable economic development.
2. To enable students to analyze the conservation, management, and policy issues related to natural resources, with special reference to India.

Unit I: Introduction

Land Resources in India – Types of Soil – Land Resource Classification – Forests – Barren Land – Pastures and Grazing Land – Cultural Waste Land – Fallow Land – Agricultural Land – Net Sown Area – Land Degradation and Soil Erosion – Preventive Measures – **Land Use Planning and Sustainable Land Management** – **Climate Change and Land Resources** – **Digital Land Records and GIS Applications**.

Unit II: Role of Resources in Economic Development

Forest Resources – Role of Forests in Economic Development – Forest Cover in India – Deforestation – Effects of Deforestation – Urban Forestry – Objectives of Urban Forestry – Social Forestry – Constraints in Social Forestry – Joint/Participatory Forest Management – National Forest Policy **– Forest Landscape Restoration** – **Carbon Sequestration and Carbon Credits** – **Community-Based Forest Conservation** – **Ecosystem Services**.

Unit III: Water Resources in India

Water Resources in India – Surface Water – Groundwater – Water Demand and Utilization – Water Resource Planning – Multi-objective Approach – Benefit-Cost Ratio – Capital Outlay – Environmental Impact Assessment (EIA) – Manageability of Projects – Sustainable Water Management – National Water Policy – **Integrated Water Resources Management (IWRM)** – **Rainwater Harvesting and Watershed Management** – **Water Security and Climate Resilience** – **Smart Water Management**.

Unit IV: Mineral Resources

Mineral Resources – Metallic Minerals – Non-metallic Minerals – Mineral Fuels – Environmental Costs of Extracting Mineral Resources – Environmental Impacts of Mineral Resource Extraction and Use – Mineral Conservation and Development Rules **– Critical Minerals for Energy Transition** – **Sustainable Mining Practices** – **Circular Economy and Mineral Recycling** – **National Critical Mineral Mission**.

Unit V: Conservation and Management of Natural Resources

Conservation and Management of Natural Resources – Meaning and Objectives of Conservation – Conservation of Renewable Resources: Soil Conservation – Water Conservation – Forest Conservation – Fish Conservation – Biodiversity Conservation – Conservation of Non-renewable Resources: Energy Conservation – Mineral Conservation – **Renewable Energy and**

Resource Sustainability – **Climate Change Adaptation and Natural Resource Management** – **Green Economy and Sustainable Development Goals (SDGs)** – **Nature-Based Solutions (NbS)**.

Text Books

1. Tietenberg, Tom, & Lewis, Lynne. *Environmental and Natural Resource Economics*. Pearson Education, Latest Edition.
2. Singh, S. K. *Environmental Economics: Theory and Policy*. S. Chand Publishing, Latest Edition.
3. Karpagam, M. *Environmental Economics*. Sterling Publishers Pvt. Ltd., Latest Edition.

Reference

1. Tietenberg, Tom, & Lewis, Lynne. *Environmental and Natural Resource Economics*. Pearson Education.
2. Singh, S. K. *Environmental Economics: Theory and Policy*. S. Chand Publishing.
3. Government of India. *National Forest Policy and Natural Resource Management Reports*. Ministry of Environment, Forest and Climate Change.
4. Government of India. *Economic Survey 2023–24*. Ministry of Finance.

Web Resources

1. https://moef.gov.in, Ministry of Environment, Forest and Climate Change (MoEFCC) – Environmental policies, forest conservation, biodiversity, and climate change.
2. https://jalshakti-dowr.gov.in, Ministry of Jal Shakti – Water resources, river basin management, National Water Policy, and water conservation.
3. https://ibm.gov.in, Indian Bureau of Mines (IBM) – Mineral resources, mining policies, mineral conservation, and sustainable mining.

Course Outcomes (COs)

CO No.	**Course Outcomes**	**K-Level**
CO1	To explain the classification, distribution, and significance of land and forest resources for sustainable development.	**K2, K3**
CO2	To analyze the role of forest resources and natural resources in economic development and environmental conservation.	**K3, K4**
CO3	To evaluate water resource management, planning, and sustainable utilization in India.	**K4, K5**
CO4	To assess mineral resource management, sustainable mining practices, and resource conservation policies.	**K4, K5**
CO5	To examine the conservation and management of renewable and non-renewable resources for sustainable development.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Creat

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correction between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool- Cause and Effect Matrix)

3 – High Correlation
2 – Moderate Correlation
1 – Low Correlation
0 – No Correlation

SEMESTER- II

ELECTIVE – IV (2)

26UPECO3E11 ECONOMICS OF CLIMATE CHANGE

Course Objectives

1. To provide students with an understanding of the economics of climate change, including its causes, impacts, and policy responses from national and global perspectives.
2. To enable students to analyze climate change mitigation and adaptation strategies, climate finance, carbon markets, and sustainable development policies in the context of economic growth and environmental sustainability.

Unit I: Introduction

Science of Climate Change – Global and Regional Climate Predictions – Uncertainty in Climate Science – Physical Impacts of Climate Change: Agriculture, Sea Level Rise, Health, and Extreme Events – Policy Debate – **Climate Risk and Resilience** – **IPCC Assessment Reports** – **Climate Change and Sustainable Development Goals (SDGs)**.

Unit II: Climate Change Policy – Mitigation

Efficiency – Public Goods – Externalities – Environmental Policy Instruments – Emissions Trading – Carbon Tax – Emissions Trading versus Carbon Tax – Stock Pollutants and Discounting – Decisions under Risk and Uncertainty – **Net Zero Emissions** – **Carbon Markets and Carbon Pricing Mechanisms** – **National Green Hydrogen Mission** – **Renewable Energy Transition**.

Unit III: Integrated Assessment

Costs and Benefits of Greenhouse Gas Mitigation – Integrated Assessment Models – Simulation Exercises based on DICE Model and its Variants – Sensitivity and Uncertainty Analysis – Stern Review – **Social Cost of Carbon** – **Climate Finance** – **Green Growth and Low-Carbon Development** – **Loss and Damage Fund**.

Unit IV: Climate Change Policy – Adaptation

Climate Change Impact Assessment – Applications for Agriculture, Sea Level Rise, and Health – Vulnerability Assessment – Economics of Adaptation – Measurement of Adaptation Cost – Issues in Financing Adaptation – **Nature-Based Solutions (NbS)** – **Climate-Resilient Agriculture** – **Disaster Risk Reduction and Climate Resilience** – **Blue Economy and Coastal Adaptation**.

Unit V: Climate Change Negotiations and Equity

Criteria for Distribution of Emission Reduction Burden – Distribution Criteria for Adaptation Fund – Intergenerational and Intra-generational Equity Issues – Discounting in the Climate Change Context – **Paris Agreement and Nationally Determined Contributions (NDCs)** – **COP Summits and Global Climate Governance** – **Climate Justice** – **Carbon Border Adjustment Mechanism (CBAM)** – **Just Transition**.

Text Books

1. Nordhaus, William D. *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World*. Yale University Press, Latest Edition.
2. Kolstad, Charles D. *Environmental Economics*. Oxford University Press, Latest Edition.
3. Singh, S. K. *Environmental Economics: Theory and Policy*. S. Chand Publishing, Latest Edition.

Reference

1. Nordhaus, William D. *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World*. Yale University Press, 2015.
2. Singh, S. K. *Environmental Economics: Theory and Policy*. S. Chand Publishing, 2022.
3. Intergovernmental Panel on Climate Change (IPCC). *Climate Change 2023: Synthesis Report*. IPCC, 2023.
4. Government of India. *Economic Survey 2024–25*. Ministry of Finance, 2025.

Web Resources

1. https://www.ipcc.ch, Intergovernmental Panel on Climate Change (IPCC) – Climate science, assessment reports, and global climate projections.
2. https://unfccc.int, United Nations Framework Convention on Climate Change (UNFCCC) – Paris Agreement, COP conferences, NDCs, and global climate negotiations.
3. https://moef.gov.in, Ministry of Environment, Forest and Climate Change (MoEFCC) – Climate policies, National Action Plan on Climate Change, and environmental regulations.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To Explain the causes, impacts, and economic implications of climate change.	**K2, K3**
CO2	To Analyze climate change mitigation policies and environmental policy instruments.	**K3, K4**
CO3	To Evaluate climate finance and greenhouse gas mitigation strategies.	**K4, K5**
CO4	To Assess climate change adaptation measures and climate resilience strategies.	**K4, K5**
CO5	To Examine climate negotiations, equity, and global climate governance.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correction between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool- Cause and Effect Matrix)

3 – High Correlation **2 – Moderate Correlation** **1 – Low Correlation** **0 – No Correlation**

SEMESTER - II

ELECTIVE – IV (3)

26UPECO1E12 ECONOMICS OF SUSTAINABLE DEVELOPMENT

Objectives

1. Understand the basic concept of Sustainable Development (SD), the environmental, social and economic dimensions
2. Be able to discuss the conflicts which are involved in the SD concept on the national as well as on the global scale.

Unit 1: Introduction to Sustainable Development

Meaning and Definition - Economic Growth and Progress - Environmental Threats - MDGS to The SDGS: Agenda 2030.

Unit 2: Economic Development

Urban/Rural Inequality - Measuring Wellbeing- Convergence or Divergence - The Diffusion of Economic Growth - Economic Development Since World War II: The Making o fGlobalization- The Role of Physical Geography: Transport, Energy, Disease, Crops.

Unit 3: The MDGS and Extreme Poverty

The level of Extreme Poverty - South Asia: The Continuing Challenge of The Food Supply - The Origins of The Boundary Concept: Thomas Malthus - Neo-Malthusian Frameworks: Growth Dynamics.

Unit 4: Human Rights and Gender Equality

The Ethics of Wealth, Poverty and Inequality - Major UN Covenants and Declarations - Divided Societies - Life-Cycle Approach to Human Development - The Role of Higher Education in Sustainable Development.

Unit 5: The Proposal for Sustainable Development Goals

The Sustainable Development Goals - Goal-Based Development - Financing for Sustainable Development - Principles of Good Governance - Is Sustainable Development Feasible.

Text Book:

1. Ian Goldin, And L. Alan Winters(2010), The Economics of Sustainable Development, Cambridge University Press
2. Anna Szelągowska And Aneta Pluta-Zaremba, The Economics Of Sustainable Transformation, 1st Edition, Routledge

Reference Book:

1. James Robertson (1997), The New Economics of Sustainable Development A Briefing for Policy Makers, A Report for The European Commission

2. Tatyana P. Soubbotina (2004), Beyond Economic Growth an Introduction to Sustainable Development, Second Edition, The International Bank for Reconstruction and Development
3. David Zilberman, Renan Goetz, Alberto Garrido, The Economics of Sustainable Development, Springer

Web Reference

1. https://Www.Un.Org/Sustainabledevelopment/Economic-Growth/
2. http://Www.Ru.Ac.Bd/Wp-Content/Uploads/Sites/25/2019/03/408_01_Jennifer-An-Introduction-To-Sustainable-Development-2012.Pdf
3. https://www.researchgate.net/publication/358045765_ISSUE_OF_GREEN_CONVERGENCE_A_CASE_STUDY_OF_SOUTH_ASIA

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Define and explain the need for sustainable development	K1, K2, K5
CO2	Find out and infer the wellbeing concept and economic development and to identify and analyse about Physical Geography	K1, K2, K3, K4
CO3	To list out and illustrate the role of MDGs and to examine the measures used to eradicate poverty	K1, K2, K4, K5
CO4	Analyse, identify, evaluate and discuss the human rights and gender equality to have sustainable economic growth	K3, K4, K5, K6
CO5	Examine, explain, identify and elaborate the role of sustainable development goals and its feasibility	K2, K3, K4, K5, K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	2	2	3	3
CO2	3	3	2	3	3
CO3	3	3	3	2	3
CO4	3	3	3	3	3
CO5	3	2	3	3	3
Weightage	15	13	13	14	15
Weighted percentage of Course Contribution to Pos	3	2.6	2.8	2.6	3

Level of Correlation between PSO’s and CO’s
(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)
Assign the value
1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER – III

SEMESTER – III

CORE – VII

26UPECO1C07 ADVANCED MACRO ECONOMICS

Course Objectives

1. To make students understand the working of the economy as a whole, integrating the different markets, **with emphasis on contemporary macroeconomic issues, global economic integration, and policy challenges**.
2. To provide students with Classical and Keynesian perspectives on the economic factors affecting an economy's general equilibrium, **while enabling them to analyze modern macroeconomic theories, stabilization policies, and emerging macroeconomic developments**.

Unit I: Classical, Keynesian and Post Keynesian Macroeconomics

Classical Theory of Output and Employment – Full Employment Equilibrium – AD–AS Model – Keynesian Theory of Output and Employment – Underemployment Equilibrium – Effective Demand – Hicks-Hansen IS–LM Model – BP Model – **New Consensus Macroeconomics** – **Macroeconomic Effects of COVID-19** – **Digital Economy and Aggregate Demand** – **Inflation Targeting Framework**.

Unit II: The New Classical Macroeconomics

Assumptions of Rational Expectations Hypothesis – Policy Ineffectiveness Theorem – Aggregate Supply Hypothesis – Policy Implications of New Classical Approach – Sources of Productivity Shocks in Real Business Cycle Theory – Stabilization Policy and Unemployment – Role of Money in Real Business Cycle Theory – Policy Implications of Real Business Cycle Theory – DAD–DAS Model – **Dynamic Stochastic General Equilibrium (DSGE) Models** – **Supply Chain Shocks** – **Artificial Intelligence and Productivity Growth**.

Unit III: New Keynesian Macroeconomics

Core Propositions of New Keynesian Macroeconomics – Wage and Price Rigidities – New Keynesian Business Cycle Theory – Policy Implications of New Keynesian Macroeconomics – **New Keynesian Phillips Curve** – **Inflation Expectations** – **Central Bank Forward Guidance** – **Monetary Policy Transmission Mechanism**.

Unit IV: Open Economy Macroeconomics

Openness in Goods and Financial Markets – Output, Interest Rate and Exchange Rate – Exchange Rate Regimes – Exchange Rate and Balance of Payments – Mundell–Fleming Model – **Capital Mobility** – **Global Financial Crises** – **Exchange Rate Volatility** – **Digital Currencies (CBDC)** – **International Capital Flows**.

Unit V: Macroeconomic Policies

Stabilization Policies – Theory of Policy – Tinbergen's Approach – Fiscal Policy – Monetary Policy – Optimal Policy Mix – Crowding-Out Effect – Bond-Financed and Tax-Financed

Government Expenditure – Rules versus Discretion – Government Budget and Budget Deficit – **Inflation Targeting** – **Fiscal Responsibility and Budget Management (FRBM)** – **Universal Basic Income (UBI)** – **Green Fiscal Policy** – **Sustainable Economic Growth**.

Text Books

1. Blanchard, O. (2024). *Macroeconomics* (9th ed.). Pearson.
2. Mankiw, N. G. (2024). *Macroeconomics* (11th ed.). Worth Publishers.
3. Dornbusch, R., Fischer, S., & Startz, R. (Latest Edition). *Macroeconomics*. McGraw-Hill Education.

References

1. Romer, D. (2024). *Advanced Macroeconomics* (6th ed.). McGraw-Hill.
2. Carlin, W., & Soskice, D. (2023). *Macroeconomics: Institutions, Instability and the Financial System*. Oxford University Press.
3. Obstfeld, M., Krugman, P. R., & Melitz, M. (2024). *International Economics: Theory and Policy*. Pearson.
4. Mishkin, F. S. (2024). *The Economics of Money, Banking and Financial Markets*. Pearson.
5. International Monetary Fund. (2025). *World Economic Outlook*. IMF.

Web Resources

1. https://www.imf.org | International Monetary Fund (IMF) – World Economic Outlook, fiscal and monetary policy.
2. https://www.worldbank.org | World Bank – Global economic prospects and macroeconomic indicators.
3. https://www.rbi.org.in | Reserve Bank of India – Monetary policy, inflation and financial stability.
4. https://www.oecd.org/economy | OECD – Macroeconomic outlook and economic policy reports.
5. https://www.bis.org | Bank for International Settlements – Central banking and financial stability.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the major macroeconomic theories and equilibrium models.	K2, K3
CO2	To analyze New Classical and New Keynesian macroeconomic approaches and business cycle theories.	K3, K4
CO3	To evaluate open economy macroeconomic models, exchange rate systems, and international capital flows.	K4, K5
CO4	To assess fiscal, monetary, and stabilization policies in achieving macroeconomic objectives.	K4, K5
CO5	To examine contemporary macroeconomic issues, policy challenges, and sustainable economic growth.	K4, K5

K1 – Remember, K2 – Understand, K3 – Apply, K4 – Analyze, K5 – Evaluate, K6 – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correlation between PSOs and COs

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

- **3** – High Correlation
- **2** – Moderate Correlation
- **1** – Low Correlation
- **0** – No Correlation

SEMESTER – III

CORE – VIII

26UPECO1C08 PUBLIC ECONOMICS

Course Objectives

1. To provide students with a comprehensive understanding of the principles and theories of Public Economics, including public expenditure, taxation, public debt, fiscal policy, and fiscal federalism.
2. To enable students to analyze the role of government in resource allocation, economic stabilization, income distribution, and sustainable development, with special reference to the Indian economy and contemporary fiscal reforms.

Unit I: Introduction

Introduction – Role of Public Finance – Major Fiscal Functions – Private and Public Goods – Mixed Goods – Merit Goods – Social Goods – Market Failure – Public Goods and Externalities – **Digital Public Goods and Digital Infrastructure – Climate Change and Environmental Externalities.**

Unit II: Theories of Public Expenditure

Public Expenditure – Theories of Public Expenditure – Musgrave – Wagner – Peacock-Wiseman – Growth of Public Expenditure – Canons and Evaluation of Public Expenditure – **Outcome-Based Budgeting – Green Public Expenditure and Sustainable Development – Social Sector Expenditure and Human Development.**

Unit III: Taxation

Taxation and Public Debt – Direct and Indirect Taxation – Canons and Principles of Taxation – Theory of Optimal Taxation – Modern Theory of Incidence – Classification and Sources of Public Debt – Burden of Public Debt – Principles of Public Debt – Methods of Repayment of Public Debt – Compensatory Aspects of Public Debt Policy – **Digital Taxation and E-commerce Taxation – Tax Compliance through Technology – Public Debt Management and Sustainability**.

Unit IV: Fiscal Policy

Fiscal Policy and Fiscal Federalism – Objectives and Instruments of Fiscal Policy – Compensatory Fiscal Policy – Fiscal Policy for Economic Stability and Growth – Effectiveness of Fiscal Policy – Fiscal Federalism – Role of Finance Commission – Principles – Recommendations of the 14th Finance Commission and Terms of Reference of the 15th Finance Commission – Transfer of Resources from Union to States and States to Local Bodies – **Cooperative and Competitive Federalism – Climate Finance and Green Fiscal Policy – Fiscal Policy during Economic Shocks and Pandemics.**

Unit V: Financial Administration

Indian Public Finance – Financial Autonomy in India – Tax Reform Proposals of the Kelkar Committee – Tax Structure and Working of Fiscal Federalism in India – Resource Transfer from Union to the State of Tamil Nadu – VAT: Merits and Demerits – GST: Design, Implementation and Impact – Fiscal Consolidation in India since 2001–2002 – Fiscal Responsibilities of Central and State Governments – FRBM Act, 2003 – Central and State Government Budgets – Issues of Fiscal Deficit – Fiscal Policy and Economic Downturn: Fiscal Correction versus Additional Stimulus – **Digital Payments (UPI) and Revenue Mobilization – Artificial Intelligence in Tax Administration – Green Budgeting and ESG-based Public Finance – India's G20 Fiscal and Financial Initiatives.**

Text Books

1. Tyagi, B. P. *Public Finance*. Vikas Publishing House Pvt. Ltd., New Delhi, Latest Edition.
2. Singh, S. K. *Public Finance: Theory and Practice*. S. Chand Publishing, New Delhi, Latest Edition.
3. Stiglitz, Joseph E., &Rosengard, Jay K. *Economics of the Public Sector*. W. W. Norton & Company, Latest Edition.

Reference

1. Musgrave, Richard A., Peggy B. *Public Finance in Theory and Practice* (5th ed.). McGraw-Hill, 1989.
2. Tyagi, B. P. *Public Finance* (31st ed.). Vikas Publishing House Pvt. Ltd., 2023.
3. Singh, S. K. *Public Finance: Theory and Practice*. S. Chand Publishing, 2022.
4. Government of India. *Economic Survey 2024–25*. Ministry of Finance, 2025.

Web Resources

1. https://finmin.gov.in | Ministry of Finance, Government of India – Budget, fiscal policy, taxation, public expenditure, and Economic Survey.
2. https://www.rbi.org.in | Reserve Bank of India (RBI) – Monetary policy, public debt, government securities, and financial stability.
3. https://www.niti.gov.in | NITI Aayog – Fiscal reforms, cooperative federalism, SDGs, and public policy.

Course Outcomes (COs)

CO No.	**Course Outcomes**	**K-Level**
CO1	To explain the principles and theories of public economics, public finance, and the role of government in economic development.	**K2, K3**
CO2	To analyze public expenditure, taxation, and public debt in achieving economic efficiency and social welfare.	**K3, K4**
CO3	To evaluate fiscal policy, fiscal federalism, and contemporary fiscal reforms in India.	**K4, K5**
CO4	To assess taxation systems, public debt management, and fiscal sustainability in the Indian economy.	**K4, K5**
CO5	To examine financial administration, budgeting, GST, digital taxation, and emerging issues in public finance.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correction between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool- Cause and Effect Matrix)

3 – High Correlation
2 – Moderate Correlation
1 – Low Correlation
0 – No Correlation

SEMESTER – III

CORE – IX

26UPECO1C09 RESEARCH METHODOLOGY

Course Objectives

1. To develop the ability to do research and critical thinking of the researchable issues among study.
2. To analyse data, develop skills in academic writing interms of project report preparation.

Unit I: Introduction to Research

Nature of Social Science Research – Methods and characteristics – Formulating the problem- Types – Sources and characteristics of good hypothesis – Type I & Type II error - Components and types of research design.

Unit II: Sampling and Data Collection

Sampling, Need, types, Probability, random, systematic, stratified, multistage or cluster sampling. Non Probability sampling; Purposive, Judgment, Quota and Snowball sampling- Data collection; Primary and Secondary data; NSSO, NFHS etc. and Census. Methods of data collection- Tools of data collection; schedule and questionnaire.

Unit III: Data Processing, Report Writing and Ethics

Data Processing: Editing, coding and tabulation - Diagrammatic and graphic representation of data- Interpretation of results and Report writing – Structure of research report - Preparation of Project Proposals – Research ethics: Plagiarism & academic integrity.

Unit IV: Data Analysis

Scaling Techniques - Standard Error – Confidence interval - Level of Significance – Critical region –Testing of Hypothesis – Parametric and non-parametric tests: t, z, Chi-square & ANOVA.

Unit V: Computer & Software Packages in Research

Data management – Data Visualisation: Tables, Charts, Graphs, Software packages: SPSS - Online free softwares

Text Books:

1. C.R. Kothari (2025) 5th edition, “Research Methodology”, Vikas Publishing House, New Delhi.
2. Dinesh Gabhane Sahu S R, (2024), “Integrated Approaches to Research Methodology, Concepts & Applications”, Paradox International Publications, London.

Reference:

1. Bhome et al (2013) Research Methodology, Himalaya Publishing Home, New Delhi.
2. Sara S K & Mirza Humaira (2024), Research Methodology, Prime International Publications, New Delhi
3. Patton, M.Q., Qualitative Research and Evaluation Methods, 3rd Edition Sage 41 Publications, 2002

Web Resources

1. www.socialresearchmethods.net
2. www.ualberta.ca
3. http://finmin.nic.in

Course Outcomes (Cos):

Upon Completion of this course, the students will be able

No.	Course Outcomes	K-Levels
CO1	To understand the fundamental concepts in research	K1, K2
CO2	To know the identification of samples and data collection tools	K2, K3
CO3	Demonstrate, construct, and explain the functions of presenting data in different methods	K3, K4, K5
CO4	To illustrate, identify, evaluate and create new models and evaluate the data	K4, K5, K6
CO5	To develop research ethics and integrity	K5, K6
CO6	To use the statistical and econometric software in model building and analysis	K4, K5, K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	2	3	3	2	3
CO2	2	3	2	3	3
CO3	2	3	3	3	3
CO4	3	3	3	2	2
CO5	3	3	3	3	3
Weightage	12	15	14	13	14
Weighted percentage of Course Contribution to Pos	2.4	3	2.8	2.6	2.8

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER – III

CORE – X

26UPECO1C10 ECONOMETRIC METHODS

Course Objectives:

1. To provide students with a comprehensive understanding of statistical methods, probability, sampling techniques, hypothesis testing, and statistical decision-making for economic research and policy analysis.
2. To enable students to apply **modern statistical tools, data analytics, statistical software, artificial intelligence, and forecasting techniques** for analyzing economic data and supporting evidence-based decision-making.

Unit I: Basic Regression

Analysis, Nature and Scope of Econometrics – Simple Regression Model: Specification, OLS Method, Assumptions of CLRM and Gauss-Markov Theorem, Hypothesis Testing and Goodness of Fit – Extensions of Simple Regression Model: Regression through Origin, Scaling and Units of Measurement, Functional Forms of Regression Model – Maximum Likelihood Estimation – **Model Specification Tests** – **Diagnostic Tests (Multicollinearity, Heteroscedasticity and Autocorrelation)** – **Applications using Statistical Software (R, STATA and EViews)**.

Unit II: Dummy Variable

Dummy Variables – Nature of Dummy Variables – ANOVA Models – ANCOVA Models – Dummy Variable Alternative to Chow Test – Uses of Dummy Variables – Seasonal Analysis – Piecewise Linear Regression – Qualitative Response Regression Models: Linear Probability Model, Logit Model, Probit Model and Tobit Model – **Panel Data Models (Introduction)** – **Binary Choice Models in Economic Research** – **Machine Learning Classification Techniques (Introduction)**.

Unit III: Dynamic Econometric Model

Dynamic Econometric Model: Autoregressive Model and Distributed Lag Model – Estimation of Distributed Lag Models – The Koyck Approach to Distributed Lag Models – Adaptive Expectations Model – Partial Adjustment Model – Estimation of Autoregressive Model – Almon Approach to Distributed Lag Models – **Autoregressive Distributed Lag (ARDL) Model** – **Error Correction Model (ECM)** – **Forecasting using Dynamic Econometric Models**.

Unit IV: Simultaneous Equation Model

Simultaneous Equation Model – Simultaneous Equation Bias – Identification Problem – Rules for Identification – Test of Simultaneity – Test of Exogeneity – Simultaneous Equation Methods – Recursive Models and Ordinary Least Squares – Method of Indirect Least Squares – Method of Two-Stage Least Squares – Generalized Least Squares – **Instrumental Variable (IV)**

Estimation – Three-Stage Least Squares (3SLS) (Introduction) – Applications in Policy Evaluation and Impact Assessment.

Unit V: Time Series Econometrics

Introduction to Time Series Econometrics: Stochastic Process – Stationary and Non-Stationary Stochastic Process – Unit Root Stochastic Process – Trend Stationary and Difference Stationary Stochastic Process – Integrated Stochastic Process – Properties – Unit Root Tests – Co integration Model – **Vector Auto regression (VAR) Model – Vector Error Correction Model (VECM) (Introduction) – Granger Causality Test – Forecasting using Time Series Models – Big Data, Artificial Intelligence and Machine Learning Applications in Econometrics**.

Text Books:

1. Damodar N.Gujarati &S angeetha (2019)Basic Econometrics Tata McGraw-Hill Publishing company Limited New Delhi
2. K.Dhanasekaran (2012) Econometrics, Vrinda Publications.

References:

1. Gujarathi, D.N. (2005), Text Book of Econometrics [McGraw-Hill, New Delhi].
2. Kalirajan, K.P. (1995,.Applied Econometrics [Oxford and IBH, New Delhi].
3. Suresh, J. Ghosh (1994), Econometric Theory and Applications [Prentice Hall of India, New Delhi]

Web Resources

1. https://www.rbi.org.in | Reserve Bank of India (RBI) – Monetary policy, financial statistics, and macroeconomic data.
2. https://data.worldbank.org | World Bank Open Data – Global macroeconomic and development datasets for econometric analysis.
3. https://fred.stlouisfed.org | Federal Reserve Economic Data (FRED) – Time series data for macroeconomic and financial analysis.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the concepts, assumptions, and estimation methods of econometric models.	**K2, K3**
CO2	To apply regression models, dummy variables, and qualitative response models in economic analysis.	**K3, K4**
CO3	To evaluate dynamic econometric models and distributed lag models for empirical research.	**K4, K5**
CO4	To assess simultaneous equation models and estimation techniques in econometric analysis.	**K4, K5**
CO5	To examine time series econometric models, unit root tests, and cointegration techniques for forecasting and policy analysis.	**K4, K5**

K1 – Remember, **K2** – Understand, **K3** – Apply, **K4** – Analyze, **K5** – Evaluate, **K6** – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correlation between PSOs and COs
(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

3 – High Correlation
2 – Moderate Correlation
1 – Low Correlation
0 – No Correlation

SEMESTER - III

ELECTIVE – V (1)

26UPECO1E13 ECONOMICS IN EVERYDAY LIFE

Course Objectives

1. To ensure the economic view of society and to familiarize the most basic concepts of economics
2. To helps the students to reason and apply economic concept in everyday life

Unit 1: Thinking about Prices

What is price? – How are price determinations? – Willingness to Pay – Meaning, Measurements – Relationship behavior - Inflation rate and the prices - Application: why price differences in different locations.

Unit 2: Economics of Social Customs

Economics of rising age of marriage and declining family size – Economics of Divorce - How globalization on Indian family – Economics of gift: cash and fund - Application: Reasoning about economic Inequality between men and women.

Unit 3: Economics of Social Evils

Discrimination: Rational and the economic harm and its causes - Pollution: Causes - Economics of the leisure -Addiction: Economic case or legalizing drugs as solution to addiction- Corruption- An Economists Perspective- application: Why prohibition does more harm than good: An Economic Perspective.

Unit 4: Economics of Arts, Sports, and Science

Understanding the declining demand for performing arts from economic perspective- Economics of Sports: Role of economic competition in sporting activity – Economics and Science: Science perspective of Economics – Application: How economic Globalization and commercialization enrich Indian music.

Unit 5: National Issues

The Union Budget and you – Taxes, Subsidies and Fiscal Deficit – Stock market: Bulls and Bears - Gig economy - The global economic crisis: Its origin and impact on India- Application: Living through an economic downturn.

Text Books:

1. Robert J. Stonebraker (2005), The Joy of Economics: Making Sense of Life, Winthrop University
2. Tim Harford (2000), The Logic of Life: Discovering the New Economics of Everything, (London: Little).
3. Paul Hayne (1998), Economic Way of Thinking, Prentice Hall.

References:

1. Penson, T. H (2011), The Economics of Everyday Life: A First Book of Economic Study, NabuPressCambridge University Press
2. David D. Friedman (1997), Hidden Order: The Economics of Everyday Life, HarperBusiness
3. David George Surdam (2015), Century of the Leisured Masses: Entertainment and the Transformation of Twentieth-Century America, Oxford University Press

Web Resources

1. https://www.economicshelp.org/blog/5628/economics/applying-economics-in-everyday-life/
2. https://www.sociologygroup.com/economics-in-everyday-life/
3. http://acdc2007.free.fr/woodcock2020.pdf

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	To know what is price and to explain and identify its mechanism in economies function	K1, K2, K3
CO2	To define, illustrate and evaluate the value of economics in social customs of the society	K1, K2, K5
CO3	To find and examine the evils happening in the economy and to identify and measures to overcome those evils	K1, K3, K4, K5
CO4	To illustrate, analyse the importance of various dimensions of economics in the society	K2, K4, K5
CO5	Analyse, measure and to discuss the role of economics in the effective functioning of the country	K4, K5, K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	3	3
CO2	2	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	2	3	3
CO5	3	3	3	2	2
Weightage	14	15	13	14	13
Weighted percentage of Course Contribution to Pos	2.8	3	2.8	2.8	2.8

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER - III

ELECTIVE – V (2)

26UPECO1E14 ENTREPRENEURIAL DEVELOPMENT

Course Objectives:

1. To understand the concept of Entrepreneurship
2. To understand the responsibilities and process of an entrepreneur

Unit I: Introduction

Introduction of Concepts Concept of Entrepreneur – characters of an Entrepreneur – distinction between Entrepreneur & Manager – function & Types of Entrepreneur. Concept Entrepreneurial ship – Role in Economic Development, Women Entrepreneurial ship – function, problems recent trends.

Unit II: Entrepreneurial Growth

Entrepreneurial Growth Economic & Non-Economic Factors – Role of Government Entrepreneurial Motivation – Theories – factors- Entrepreneurial Development – Need, Objectives, Phases Evaluation.

Unit III: Project Formulation and Selection

Projects & Entrepreneur Meaning – Identification – Selection- Project Formation: Meaning and Significance - Contents of a Project Report – Formation– Planning Commission Guidelines.

Unit IV: **Project Appraisal**

Project Appraisal and Finance Concept - methods of Appraisal- Need for financial Planning – Source of finance - Capital structure – Capitalisation –venture capital – Export Finance.

Unit V: Institutional Finance

Institutional Finance to Entrepreneurs Commercial Bank, Industrial Development of India (IDBI),Industrial Finance Corporation of India (IFCI),Industrial Credit & Investment Corporation of India (ICICI) Unit Trust of India (UTI),State Financial Corporation's (SFCs),State Industrial Development Corporation (SIDCO) Exam Bank of India- Institutional Support to Entrepreneur National Small Industries Corporation Ltd.(NSIC)- Small Industries Development Organisation (SIDO)- Small Scale Industries Board (SSIB)- State Small Industries Development Corporations (SSICS)- Small Industries Service Institutes (SISI)- District Industries Centre (DICs).

Text Books:

1. Dr.S.S.Khanka (2011), Entrepreneurial Development, S.Chand& Company Ltd, Ram Nagar New Delhi. State Integrated Board of Studies – Economics PG 58.
2. 4. Poornima M. Charantimath, (2007), Entrepreneurship Development and Small Business Enterprises, Pearson Education, New Delhi.

Reference Books:

1. Vasant Desai, (2008), Dynamics of Entrepreneurial Development and Management, Himalaya Publishing House, New Delhi.
2. Robert D. Hisrich, Michael P. Peters and Dean A. Shepherd,(2007) Entrepreneurship, Tata McGraw Hill, New Delhi.
3. Khanka, S.S. (2007), Entrepreneurial Development, S.Chand& Company, New Delhi.

Web Resources:

1. https://www.startupindia.gov.in/content/sih/en/reources/l-d-listing.html
2. https://elearningindustry.com/entrepreneurship-and-elearning-top-5-elearning-options-newbie-entrepreneurs

Course Outcomes (COs):

Upon Completion of this course, the students will be able to

S.No	Course Outcomes	K-Levels
CO1	Understand the concept of Entrepreneurship	K_1, K_2, K_4
CO2	Ability to learn the factors involved in business	K_1,K_2, K_4
CO3	Identify the process involved in the project	K_1,K_2, K_3 K_4
CO4	Assess the methods of Project Appraisal	K_1, K_2, K_3 K_4 K_5
CO5	Acquire the knowledge about source of Finance	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	3
CO2	3	3	2	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	2	3	3
Weightage	15	15	12	15	15
Weighted percentage of Course Contribution to Pos	3	3	2.4	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low **2 – Medium** **3 – High** **0 – No Correlation**

SEMESTER - III

ELECTIVE – V (3)

26UPECO1E15 DEMOGRAPHY

Objectives:

1. To introduce the subject of demography to the student of economics
2. To have knowledge on basic concepts, data sources in demography and ECONOMIC development by population dividend

Unit – I: Introduction

Demography: Meaning, Concepts, Significance, Techniques, Measurements of demographic analysis – Composition, Density of population ratio, BR, DR, IMR, Under five IMR, Life expectancy & HDI - Population pyramid - Population growth and size – Population trap .

Unit – II: Theories of Demography

Malthus, Optimum Theory of Population – Social theories: Dumont, Brento, Henry George – Theory of Demographic Transition.

Unit – III: Migration & Urbanization

Concepts & types of migration – Effect on population growth & pattern – Factors affecting migration – Theories. Urbanisation – Growth & distribution of rural & urban population in developed & developing countries.

Unit – IV: Demographic Data Base in India

Census of India – Nature, Methodology & Characteristics of Census (1971 – 2011) – NFHS (different surveys).

Unit – V: Demography & Economic Development

Population & economic development: Trends & distribution – Population control measures in India – Population Policy in India – Current population scenario. Economic determinants of population change. Household behavior, New home economic approach to fertility, marriage, divorce and household structure - Change economic roles and fertility.

References

1. Bogue D J (1971), "Principles of Demography", *John Wiley, New Delhi*
2. Gulati S C (1988), "Fertility in India: An Econometric Study of a Metropolis", *Sage Publications, New Delhi*
3. Chenery H & Srinivasan T N (Eds.,) (1989),"Hand Book of Development of Economics", Vol. 1& 2, *Elsevier, Amsterdam*
4. Srinivasan K (1998), "Basic Demographic Techniques and Applications", *Sage Pub., New Delhi*
5. Raj Hans (), "Fundamentals of Demography: Population Studies (With special reference to India)", *Surjeet Publications, New Delhi*
6. Majumdar M K (2013), "India's Demography: Changing Demographic Scenario in India", *Rawat Pub., New Delhi*

7. Jennifer Hickes Lundquist, Amherst Douglas L. Anderton & David Yaukey (2015), "Demography: The Study of Human Population", (4ed.,), *Waveland Press, Inc.*
8. Census of India – Various year
9. NFHS – Various surveys

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level	Order
CO1	Apply demographic concepts and population theories to explain past and present population characteristics; and evaluate the use of demographic concepts and population theories to understand contemporary socio-economic issues and current affairs	K1,K2	LO
CO2	Explore various aspects and impact of the population policy on socio economic issues.	K3	IO
CO3	Acquire the knowledge of sources of population data; impart knowledge on Census ; gain knowledge on secondary sources and describe the different demographic surveys	K4, K5, K6	HO
CO4	Explore the region based policy based on population		
CO5	Discuss the development of Vital Registration System (VRS) with caste based registration		

Mapping of course outcomes with programme objectives

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	P11	P12
CO1	L	L	M	-	L	L	-	L	S	L	-	-
CO2	S	M	M	-	M	L	M	-	M	-	M	-
CO3	S		L	S	-	-	S		M	-	-	S

26UPECO1N02 SOCIAL ETHICS AND RESPONSIBILITIES

(Women Empowerment, Disability, Social Inclusion)

Course Objective:

1. To understand the importance of Ethical Values.
2. To equip the students with social responsibilities

Unit 1: Introduction

Social Ethics – Definition - Ethical Model: Golden Rule Model and Kantian Model-Ethical Decision-making, Ethical Dilemmas in Organization, Corporate Governance- Types of Ethical Issues - Theft - Bribery and Corruption - Exploitation of Employees – Discipline - Whistle Blowing.

Unit 2: Workplace and Professional Ethics

Ethical Issues in Workplace- Types - Accountability - Employee Favoritism -Bad Leadership Behavior- Gender Ethics- Sexual Harassment and Discrimination.

Unit 3: Social Responsibility of Business

Social Responsibility of Business towards Shareholders, Employees, Customers, Dealers, Community & Government – Social Audit Social Responsibility of Business – Shareholders-Employees -Customers-Community and Government - Corporate Social Responsibility Initiatives -Dimensions-Ethics of Environment Protection & Pollution Control.

Unit 4: **Social Inclusion**

Meaning of Social Inclusion and Exclusion – Dimensions of Social Inclusion- Gender Inclusion and Equality

Unit 5: Opportunities for Disabled

Mainstreaming Disability- Provision of Employment Opportunities for disabled – Indian Government Schemes – Ministry of Social Justices and Empowerment

Textbooks:

1. Jenny Teichman (1996) Social Ethics A Student's Guide Wiley Blackwell
2. John S.Feinburg and Paul D.Feinburg(2010) Ethics for a Brave New World, Crossway.

References

1. Denis Collins and PatriciaKanashiro (2017) Business Ethics: Best Practices for Designing and Managing Ethical Organizations SAGE Publications, Inc; Third edition
2. William H.Shaw (2016) Business Ethics : A textbook with Cases Cengage Learning
3. Govindarajan M.,Senthilkumar M.S. Natarajan (2013)Professional Ethics and Human Values, PHI

Web Resources

1. https://pachamama.org/social-justice/social-responsibility-and-ethics
2. http://www.fimt-ggsipu.org/study/bbabi310.pdf
3. **https://www.socialworkers.org/About/Ethics/Ethics-Education-and-Resources**

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the importance of Ethics and outlining the various types of Ethical Issues in an organization	K1, K2, K4
CO2	Categories the ethical issues in the workplace	K2, K4, K5
CO3	Evaluate the need for Corporate Social Responsibility	K1,K4
CO4	Design Policies for Social inclusion	K4,K5
CO5	Know various schemes for disabled	K5,K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	3	3
CO2	3	3	2	3	3
CO3	3	3	3	3	3
CO4	3	3	3	2	3
CO5	3	3	3	3	3
Weightage	15	15	14	14	15
Weighted percentage of Course Contribution to Pos	3	3	2.8	2.8	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

26UPECO1N03 ECONOMICS FOR COMPETITIVE EXAMINATION

Course Objectives:

1. To enable the students to acquire knowledge related to various Economics concepts pertaining to Indian Economy.
2. To help the students to have reason and think Economics and apply it in real terms

Unit I: Economics Growth and Development

The basic concept and definition of economy and economics – its uses and transfer of resources, distributive effects, macro and micro economic policy, micro-macro balance, the distributive impact of economic policies, development versus growth, determinant of growth and development, concepts such as HPI / MPI, HDI, PQLI, GEM, GDI / GII, TAI, Green index, sustainable development, India's ranking in the various indices.

Unit II: Inclusion and Poverty

Definition, relevance, types, financial inclusion, recent initiatives – Poverty – Definitions, causes, distribution – deprivation, income versus calories, measurement of poverty, the status of poverty, eradication programmes, poverty and resource policy, tribal rights and issues, livelihood mission.

UNIT III: Basic Economic Indicators and Features of Indian Economy

National Income – Concepts, Methods of calculation – Features of Indian Economy – Economic and Non-economic factors - Price Index, Production, Population, Foreign Trade – Division of economic activities – Human Development Reports.

Unit IV: Agriculture and Industry

Crops, Seasons, Agricultural Credit Agencies, Kisan Credit Agencies, Land Reforms, Insurance, Green, White, Blue, Yellow Revolutions, Irrigation – Industrial Policies (1948, 1956, 1991), Small Scale Industries, Industrial Sickness, Disinvestment, PSU Policy, Industrial Finance. – Labour Policies

Unit V: Public Finance

Fiscal Policy – Definition, Components, Receipts, Revenue and Capital Account, Tax Revenue, Expenditure, Budget - Finance Commission, Taxation, Deficit Financing, Public Spending and Debt. – Monetary Policy – Instruments – Current affairs in Economics

Text Books:

1. Puri V.K., Misra S.K., Indian Economy, Himalaya Publication House
2. Bhatia H.L., Public Finance, Vikas Publishing House

References:

1. Jhingan M.L., The Economics of Development and Planning, Vrinda Publications P Ltd
2. Koutsoyiannis A., Modern Microeconomics, Palgrave Macmillan U.K.
3. GauravDatt and AshwaniMahajan, Datt and Sundharam Indian Economy, S Chand and Co Ltd

Web Resources:

1. https://www.indiabudget.gov.in/
2. https://www.nabard.org/news-article.aspx?id=25andcid=552andNID=220
3. https://www.birmingham.ac.uk/news/2017/green-white-and-blue-why-india-needs-a-third-agricultural-revolution#:~:text=Agriculture%20is%20the%20backbone%20of,the%20world's%20largest%20milk%20producer.

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able

No.	Course Outcomes	K-Levels
CO1	To explain and outline the concepts of Economic growth and development.	K1,K2
CO2	To explain and identify the problems of inclusion and poverty.	K2,K3
CO3	To interpret, develop and determine the economic indicators and features of Indian Economy.	K2,K3,K5
CO4	To illustrate and discuss the Agriculture and Industrial Sector.	K2,K6
CO5	To determine and estimate the Public Finance.	K5,K6

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

SEMESTER – IV

SEMESTER –IV

CORE – XI

26UPECO1C11 INTERNATIONAL ECONOMICS

Course Objectives:

1. To make the students to understand theories of International Trade.
2. To understand the concept of balance of payments and equilibrium in BOP and to know the functioning of international institutions and its role.

Unit I: Theories of Trade - I

Pure Theory of International Trade Comparative Cost Theory - Refinements of Comparative Cost Theory Modern Theory of Factor Endowments – Leontief Paradox - Factor price equalization theorem – Factors Intensity Reversal: The Stolper-Samuelson Theorem and the Rybezynski Theorem.

Unit II: **Theories of Trade - II**

Recent Theories of International Trade Karvi's Theory of Availability – Lindar's Theory of Volume of Trade and demand pattern- Posner's Technological Gap Theory – Vernon's Product Cycle Theory - Kenen's Human capital theory - Intra- Industry Trade – Theory of Imperfect Competition - Strategic Theory – External Economies and International Trade.

Unit III: Balance of Payment

Balance of Payments Policies BOP Disequilibrium – Adjustment Mechanism: Elasticity Approach, Absorption approach and Monetary Approach- Expenditure changing monetary and fiscal policy – Monetary and Fiscal policies for internal and external balance: The Swan Model and Mundallian Model - Expenditure Switching Policies and Expenditure Reducing Policies – Foreign Trade Multiplier.

Unit IV: Foreign Aid

Foreign Aid and MNCs. Foreign Aid - Types of Foreign aid – Advantages and Disadvantages – Factors determining foreign aid - Foreign Investment – Foreign Direct investment – Types of FDI – FDI Policy of India- Multinational Corporations – Features of Multinational Corporations - Advantages and Limitations of MNCs – MNCs and International Trade.

Unit V: Foreign Exchange

Managing Foreign Exchange Risk Foreign exchange risk - Sources of foreign exchange risk – types of exchange rate risk - Transaction risk, Translation risk, Economic risk Measurement of Exchange Rate Risk - value-at-risk (VAR) model. Methods of managing foreign exchange risk - internal and external techniques- Forward contracts, Money market hedges, Currency futures, Currency Options, Currency swaps – Current world Geo-political situation and its impact on India.

Text Books:

1. D.N. Dwivedi (2013) International Economics: Theory And Policy. Vikas Publishing House ,New Delhi
2. M.L.Jhingan (2016) International Economics, Vrindha Publications ,New Delhi

References:

1. Francis Cherunillam (2004), International Economics (Tata McGraw Hill, New Delhi).
2. Paul Krugman and Maurice (2013), International Economics: Theory and PolicyObstfeld (New Delhi: Pearson).
3. J.N. Bhagwati (2003), Free Trade Today (Oxford University Press, New Delhi).State Integrated Board of Studies – Economics PG 20.

Web References:

1. https://www.worldbank.org/en/country/eu
2. https://www.imf.org/en/Data
3. https://www.economagic.com/

Course Outcomes (COs):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand Theories of International trade	K_1, K_2, K_3
CO2	Learn the Recent Theories in International trade	K_1, K_2, K_3
CO3	Ability to know the concept of Balance of Payments Policies	$K_1, K_2, K_3. K_4$
CO4	Assess the working of MNC s,Foreign Aid	K_1, K_2, K_3
CO5	Understand the working of Foreign Exchange	$K_1, K_2, K_3,$

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	2	3
CO2	3	3	3	2	3
CO3	3	3	3	2	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	12	15
Weighted percentage of Course Contribution to Pos	3	3	3	2.4	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

SEMESTER – IV

CORE – XII

26UPECO3C12 DEVELOPMENT ECONOMICS

Course Objectives:

1. Tracing the evolution of theories of economic development
2. To impart ideas on economic development and economic growth and its determinants and to familiarize the students about the index of measuring economic development

Unit I: Introduction conceptualizing development

Introduction Conceptualizing development: (a) GNP) as development indicator (b) Sen's capabilities approach to development: The Human Development Index – Nussbaum approach - Factors of development : (a) Capital accumulation (b) Labour (c) Natural resources (d) Technological Progress (e) Social institutions cultural values and entrepreneurial ability.

Unit II: **Theories of Development as growth**

Theories of Development as growth: (a) Lewis theory (b) balanced and unbalanced growth (c) Neo classical growth theory –Solow Model- Contemporary theory of development: (a) New growth theory: Romer model (b) Underdevelopment as Co-ordination failure (c) Kremer's O-Ring theory of development- Dependency theory-path dependence in development: QWERTY- Geography and development: Krugman's theory.

Unit III: **Poverty, Inequality and Human Capital Measurement**

Poverty, Inequality and Human Capital Measurement of inequality and poverty-Inverted –U hypothesis - Cause of inequality- Investing in education and health-the human capital approach Education and Development (a) social and private benefits of education- (b) education, inequality and poverty (c) Women's education and development Health system in development (a) health and productivity (b) financing health system in developing economics (c) Gender perspective in health care.

Unit IV: **Agriculture and Rural Development**

Agriculture and Rural Development The role of agriculture in development- Agricultural policy: (a) agricultural taxation (b) pricing policy- Risk aversion and uncertainty in subsistence farming- sharecropping and interlocking factor markets- Rural urban migration –Todaro model –Rural credit markets (a) providers and characteristics (b) theories of informed credit markets: lender's monopoly and default collateral.

Unit V: **Policies for Market Development**

Policies for development Market and the state in development:(a) The Washington consensus components and critical evaluation (b) The role of state in development (c) market failure state failure and development- Trade Policy in development : (a) import substitution (b) export promotion- Fiscal policy for development: (a) direct Vs indirect taxes (b) pattern and level of taxation.- Financial system in development: (a) the role of financial system in development (b) role of central banks (c) financial liberalization.

Text Books:

1. Jhingan M.L. Jhingan B K.,2019 The Economics of Development and Planning.,42 ed.,Vrinda Publications
2. Agrawal, A.N., Indian Economy: Problems of Development and Planning

References

1. Michael P. Todaro and Stephen C. Smith (2004), Economic Development, Pearson Education, Singapore cha- 2, 6,7, 8.
2. Yujiro Hayami (2003), Development Economics: OxfordUniversity Press, New Delhi. Tamilnadu State Council for Higher Education 17.
3. Debraj Ray (2009), Development Economics, OxfordUniversity Press, New Delhi.

Web Resources

1. https://economicsconcepts.com/human_development_index_(hdi).ht m
2. https://hdr.undp.org/data-center/human-development-index#/indicies/HDI
3. https://web.stanford.edu/~chadj/facts.pdf

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the concepts of Development	K_1, K_2, K_3
CO2	Acquire knowledge about the theories of economic development	K_1, K_2, K_3
CO3	Ability to understand the concepts related to Poverty , Inequality, Health and Education	K_1, K_2, K_3
CO4	Gain knowledge about the insights of Rural Development	K_1, K_2, K_3, K_4, K_5
CO5	Understand the role of State in Fiscal Management	K_1, K_2, K_3, K_4, K_5

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3
CO2	3	3	3	2	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	2	3
Weightage	15	15	15	12	15
Weighted percentage of Course Contribution to Pos	3	3	3	2.4	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

SEMESTER – IV

ELECTIVE – VI (1)

26UPECO1E16 ECONOMICS OF SOCIAL ISSUES

Course Objectives

1. To understand the insights to the economic theory in the design and implementation of public policy related to the social sectors.
2. This course finds roots in social economics, health, education and the problem of discriminations in the society.

Unit I: Introduction – Social Economics

Introduction of Social Economics: Definition – Equality in Human Societies – Role of government – Social security – Subsidies – Social banking – Refugees, Slavery and Beggary. - Principles of Social Doctrines: Marx, Pope and Gandhi.

Unit II: Economics of Health

Concept of Welfare Economics – Health dimensions – Determinants of Health - Demand and Supply of Health care – Financing of healthcare - Concept of human life value – Inequalities in health – Healthcare constraints.

Unit III: Economics of Education

Education as an instrument of economic growth – Concept of human capital – components of human capital – Private and Social demand for education – Educational planning and economic growth – Manpower requirements approach – Human resource mobilization and utilization.

Unit IV: Social Discrimination

Sources of Social Discrimination – Class, Caste, Religion, Race and language – Monopoly power - Consumerism – Provision of information – Economic crimes and their prevention – Violation of Human Rights – Terrorism: Causes and consequences – Need to control terrorism.

Unit V: Human Development Index

Indicators – Life expectancy, Per Capita income and Education - Index – HDI Reports, UNDP - Dimensions - Poverty – Inequality – Gender.

Text Books

1. SeetaPrabhu, K. Economic Reform and Social Sector Development, Sage Publications, New Delhi, 2012.
2. Dreze, Jean and Amartya Sen, Hunger and Public Action, Clarendon Press, London.1999

Reference Books

1. Baumol, W J, & Oates, W E, Theory of Economical Policy, Cambridge University Press, 2000.
2. Culyer, A.J., The Economics of Social Policy, Martin Robertson and Co. Ltd., London. 1993.

3. Douglass C. North and Roger Leroy Miller, The Economics of Public Issues, Harper & Row Press, New York. 2001.

Web Resources

1. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjI4KeSh
2. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjI4KeSh-
3. https://link.springer.com/content/pdf/bfm:978-1-349-15632-0/1.pdf

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

CO Code	Course Outcomes	K-Levels
CO1	To define social economics and illustrate the role of the government in creating equality in human societies.	K1, K2
CO2	To explain and elaborate the concept of welfare economics with specific reference to healthcare.	K2, K6
CO3	To illustrate and discuss the importance of education in creating human capital; private and social demand for education.	K2, K6
CO4	To recall, classify and compare the various sources of social discrimination, causes and consequences of the same.	K1, K2
CO5	To examine, estimate and illustrate the several components of human development index and the importance of these indices on development of the social sector.	K4, K6

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	3	3	3
CO2	3	3	3	3	3	3
CO3	3	3	3	3	3	3
CO4	3	3	3	3	3	2
CO5	3	3	3	3	3	3
Weightage	15	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER – IV

ELECTIVE – VI (2)

26UPECO1E17 HUMAN RESOURCES DEVELOPMENT

Course Objectives:

1. To make the student understand acquire, develop, motivate, and utilize human resources to achieve organizational goals.
2. To enable students acquire knowledge on effective utilization of manpower and to maintain a harmonious employee-employer relationship among the work teams.

Unit I: Introduction to Human Resource Management (HRM)

Evolution of HRM - Objectives and Function of HRM - Role and Responsibilities of HR Manager - Relevance of HRM - Systems approach to HRM.

Unit II: Recruitment and Selection

Human Resource Planning: Purpose and Process - Recruitment and Selection: Source of Recruitment, Stages in Selection Process - Placement, Goals Analysis: Job Description and Job Specification.

Unit III: Training and Development

Training and Development: Training Needs, Training Methods, Application of Computers in Training, Developing Effective Training Programmes - Concept of HRD - Management Development Programmes.

Unit IV: Performance Appraisal

Concept and Objectives of Performance Appraisal - Process of Performance Appraisal - Criteria for Performance Appraisal - Benefits of Performance Appraisal - Limitation and Constraints - 360 Degree Performance Appraisal - Promotion-Degree, Transfer Air Separation: Promotion, Purpose, Principles, and Types; Transfer: Reasons, Principles and Types; Separation: Lay-Off, Resignation, Dismissal, Retrenchment, Voluntary Retirement Scheme.

Unit V: Compensation Management

Compensation Management, Major Elements of Compensation Management - Incentives: Concepts, Types of Incentives; Incentives schemes in Indian Industries; Fringe Benefits - Discipline and Employees' Grievance Redressal - .Emerging Trends in HRM.

Text Books:

1. Dessler, Gray, and BijuVarkkey,(2009) Human Resource Management, 11ed., Pearson Education, New Delhi.
2. Aswathappa K (2017) , Human Resource Management: Text & Cases ,8th Edition,, Tata McGraw-Hill Education

Reference Books

1. Rao, V.S.P (2010), Human Resource Management-Text & Cases, Excel Books, New Delhi.
2. David S. Decenzo and Stephen P. Robbins (2006), Personnel & Human Resource Management, 3edition, Prentice-Hall of India, New Delhi.
3. Dwivedi,R.S.(200) A Textbook of Human Resource Management, Vikas Publications, New Delhi.

Web Resources:

1. https://www.shrm.org/
2. https://workforce.com/
3. https://www.hrexaminer.com/

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	To understand the outline of HRM and concepts therein.	K1, K2, K4
CO2	To know the approaches in acquiring the human talents.	K2, K4, K5
CO3	To analyze the trends in training and developing the manpower acquired.	K1, K3, K4
CO4	To identify the methods to improve the performance.	K1, K2, K4
CO5	To gain insight to motivate and retain the employees.	K3, K2,K5

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO1	3	3	3	2	3	3
CO2	3	3	3	2	3	3
CO3	3	3	3	2	3	3
CO4	2	3	2	3	3	3
CO5	2	3	2	3	2	3
Weightage	13	15	13	12	14	15
Weighted percentage of Course Contribution to Pos	2.6	3.0	2.6	2.4	2.8	3.0

Level of Correlation between PSO's and CO's

A(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

SEMESTER – IV

ELECTIVE – VI (3)

26UPECO3E18 MARITIME ECONOMICS

Course Objectives

1. To provide students with a comprehensive understanding of Maritime Economics and its role in global trade, logistics, and sustainable economic development. **To develop knowledge of digital shipping, port economics, blue economy, and maritime sustainability.**
2. To examine the evolution of maritime shipping, international maritime trade, and **emerging trends in smart ports, green shipping, maritime digitalization, and global maritime governance.**

Unit I: Basic Concepts of Maritime Economics

Meaning – Nature – Scope and Importance – Challenges of Maritime Economics – Basic Analytics and Economic Concepts – Time Value of Money – Decision Making and Risks – **Blue Economy and Sustainable Maritime Development** – **Digital Transformation in Maritime Economics** – **Maritime Logistics and Global Supply Chains** – **Artificial Intelligence and Data Analytics in Maritime Decision Making**.

Unit II: Demand and Supply

Demand and Supply – Law of Demand and Supply – Measures of Economic Activity – Derived Demand and Supply – Elasticity of Demand and Supply – Factors Influencing Demand and Supply – **Global Supply Chain Disruptions and Maritime Demand** – **Containerization and Port Competitiveness** – **E-commerce and International Shipping Demand** – **Freight Rate Volatility and Shipping Market Cycles**.

Unit III: Maritime Shipping

Maritime Shipping: Evolution – Characteristics – Importance of Shipping – Factors Affecting Shipping Business – Composition of the Shipping Industry – Shipping Conferences – Shipping Policies – Problems of Maritime Shipping – Shipping Transport: Types and Challenges – Cargo: Types and Functions – Role of Maritime Shipping in India – Marine Insurance: Objectives and Features – **Green Shipping and Decarbonization** – **IMO 2023 Greenhouse Gas Strategy** – **Autonomous Ships and Smart Shipping Technologies** – **Port Digitalization and Smart Ports** – **Maritime Cyber Security**.

Unit IV: Maritime Trade Economy

History of Maritime Trade – Basic Concepts of Maritime Trade – Principle of Sea-Borne Trade – Relationship between International Trade and Domestic Trade – Importance of Maritime Trade – WTO Regulations and Roles of Global Trade – International Maritime Trade Laws – **Global Value Chains (GVCs)** – **India-Middle East-Europe Economic Corridor (IMEC)** –

Sagarmala Programme – **PM Gati Shakti and Port-led Development** – **Maritime Trade under Free Trade Agreements (FTAs)**.

Unit V: Trends in Maritime Economy

Trends in Maritime Economy – Impact on National Economy and World Economy – Maritime Industry in India – International Maritime Organization – Features – Functions – Recent Trends in Maritime Trade in Developing and Developed Countries – **Blue Economy Policy of India** – **Maritime India Vision 2030** – **Maritime Amrit Kaal Vision 2047** – **Climate Change and Maritime Sustainability** – **Renewable Energy in Ports** – **Carbon-Neutral Shipping** – **Environmental, Social and Governance (ESG) Practices in Maritime Industry**.

Text Books

1. Stopford, M. (2024). *Maritime Economics* (4th ed.). Routledge.
2. Talley, W. K. (2023). *The Blackwell Companion to Maritime Economics*. Wiley-Blackwell.
3. **UNCTAD. (2024).** ***Review of Maritime Transport*****. United Nations Publications.**

Updated References

1. Grammenos, C. T. (Ed.). (2024). *The Handbook of Maritime Economics and Business* (3rd ed.). Routledge.
2. Stopford, M. (2024). *Maritime Economics* (4th ed.). Routledge.
3. UNCTAD. (2024). *Review of Maritime Transport*. United Nations.
4. International Maritime Organization. (2024). *IMO Strategy on Reduction of Greenhouse Gas Emissions from Ships*.
5. OECD. (2023). *The Ocean Economy to 2050*. OECD Publishing.

Web Resources

1. https://www.imo.org | International Maritime Organization (IMO) – Global maritime regulations, safety, green shipping, and decarbonization.
2. https://unctad.org | United Nations Conference on Trade and Development (UNCTAD) – Review of Maritime Transport and global shipping statistics.
3. https://sagarmala.gov.in | Sagarmala Programme – Government of India initiative for port-led development.
4. https://www.dgshipping.gov.in | Directorate General of Shipping, Government of India – Maritime policies, regulations, and shipping industry updates.
5. https://www.maritimeindia.org | Maritime India – Maritime India Vision 2030, ports, logistics, and shipping sector initiatives.

Course Outcomes (COs)

CO No.	Course Outcomes	K-Level
CO1	To explain the concepts, scope, and economic significance of maritime economics and global shipping.	**K2, K3**
CO2	To analyze demand and supply factors influencing maritime transport and international logistics.	**K3, K4**
CO3	To evaluate maritime shipping systems, shipping policies, marine insurance, and smart shipping technologies.	**K4, K5**
CO4	To assess the role of maritime trade, global trade regulations, and port-led economic development.	**K4, K5**
CO5	To examine emerging trends in the blue economy, sustainable shipping, digital ports, and maritime governance.	**K4, K5**

K1 – Remember, K2 – Understand, K3 – Apply, K4 – Analyze, K5 – Evaluate, K6 – Create

CO–PO Mapping (Course Articulation Matrix)

Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	3	2	2	3
CO3	3	3	3	2	2
CO4	2	3	3	2	3
CO5	2	3	2	3	3
Weightage	**1.3**	**1.4**	**1.2**	**1.0**	**1.3**
Weighted Percentage of Course Contribution to POs	**2.6**	**2.8**	**2.4**	**2.0**	**2.6**

Level of Correlation between PSOs and COs

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

- **3 – High Correlation**
- **2 – Moderate Correlation**
- **1 – Low Correlation**
- **0 – No Correlation**

OPTIONAL CORE COURSES

3. LABOUR ECONOMICS

Course Objectives:

1. To enable and acquire the knowledge the relating to the significance of labour market
2. To understand the man power in Economic Development

Unit I: Labour Market and Policies

Labour Market- Nature and Characteristics, Demand for Labour in relation to size and pattern of investment, Choice of technologies and labour policies Supply of Labour, Growth of Labour Force, Labour Market Policies, Mobility and Productivity

Unit II: Employment and Wage Determination

Employment and Development relationship- poverty and unemployment, Unemployment-Types, concepts and measurement, Employment Policy Wage Determination- Classical, Neo-classical and Bargaining theories; Concepts of minimum wage and efficiency wage; Non-wage component

Unit III: Trade Union Movement

Since Independence and Present Scenario of the Trade Union Movement– AITUC – INTUC – HMS – UTUC – Association of Indian Trade Unions with International Trade Unions –Problems of Trade Unions – Essentials for success of a Trade Union - The Trade Union Act, 1926- Recent policies relating to Trade union act

Unit IV Industrial Relation

Need for Industrial Relation Machinery-Preventive and Curative methods-Collective Bargaining, Arbitration and Adjudications-industrial Democracy, the concept of Workers participation in management- Role of State in Industrial Relations.

Unit V: Social Security and Reforms

Social Security- Concepts and evolution, Social assistance and insurance, Review and Appraisal of State Policies, Special Problems- Child labour, discrimination, bonded labour-Labour market Reforms- Exit Policy, safety requirements, National Commission on Labour, Globalisation and labour markets, mobility of labour.

Text books

1. Pant C.(1978),Indian Labour Problems, (Allahabad, Chaitanya Publishing House).
2. Singh S.S., and Metha S. (1989), Labour Economics, (Ajanta Prakasham New Delhi).

References

1. Tyagi P.B.(1995), Labour Economics and Social welfare, (Jaiprakash Nath &Co.Meerut),

2. Baholiwal T.N.(1981), Economics of Labour and Industrial Relations, (Sahity Bhawan, Agra).
3. Giri V.V. (1985), Labour Problems in Indian Industry (Asia Publishing House, Bombay).

Web resources

1. https://fac.ksu.edu.sa › sites › default › files › Moder..
2. http://students.aiu.edu › resources › onlineBook › q...
3. http://assets.vmou.ac.in › PGDLL06

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	study the recent trends of labour and their productivity	K1, K3, K4
CO2	assess the determination of employment and wages	K3,K4
CO3	Understand the trade unions and their impact on labour market	K1, K4,K5
CO4	evaluate the Industrial relation	K3,K4
CO5	analyze the current trends of social security measures	K1,K4,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	2	3	2	3	2	3
CO3	3	2	3	2	3	3
CO4	2	2	3	2	3	3
CO5	3	2	3	2	3	2
Weightage	12	12	15	14	13	14
Weighted percentage of Course Contribution to Pos	2.4	2.4	3	2.8	2.6	2.8

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

4. MANAGERIAL ECONOMICS

Course Objectives

1. To develop and understand the applications of theory and science in managerial economics.
2. To discuss optimization in capital budgeting and investment decisions.

Unit I: Nature, Scope and Concepts of Managerial Economics

Managerial Economics – Meaning and Definition – Scope of Managerial Economics – Tools that aid in decision making process – Fundamental concepts of managerial economics – Uses of Managerial Economics, risk and uncertainty, role of managerial economists.

Unit II: Demand Forecasting

Meaning and Definition, Demand Estimation – Objectives of Demand Forecasting – Process of forecasting – short term and long term forecasting – Demand forecasting techniques - survey method and statistical method – criteria of a good forecasting method.

Unit III: Pricing Strategies

Price discrimination: First degree, Second degree and third degree price discrimination - Approached to Pricing: (a) Cost-plus pricing (b) target return pricing (c) product life cycle pricing: skimming strategy – penetration strategy (d) transferpricing.

Unit IV: Break – Even Analysis and Capital Budgeting

Meaning and Definition – Concepts – BEA – contribution analysis, Profit Volume Ratio, Margin of Safety – Capital Budgeting – Meaning and Significance of capital budgeting.

Unit V: Investment Appraisal

The investment selection process – Estimating cash flows – Evaluating Investment: (a) Payback method (b) Net present value method - The cost of capital (a) Dividend valuation model (b) Capital – asset pricing model.

Text Books

1. Managerial Economics, Yogesh Maheshwari, 2012.
2. Managerial Economics, H.L.Ahuja, 2018.

Reference Books

1. Howard Davies (1998), Managerial Economics, Pitman, London.
2. William Boyes (2005), The New Managerial Economics (Indian Adaptation Edition), New Delhi Biztantra.
3. AhujaH.L. (2008), Managerial Economics (S.Chand & Co, NewDelhi).

Web Resources

1. https://www.amazon.in/Managerial-Economics-Yogesh-Maheshwari-ebook/dp/B00K7BMJQA
2. https://www.kobo.com/in/en/ebook/managerial-economics-5

3. https://plato.stanford.edu/entries/game-theory/

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

CO Code	Course Outcomes	K-Levels
CO1	To define, explain and elaborate the scope of managerial economics.	K1, K2
CO2	To identify and elaborate the demand forecasting techniques.	K2, K6
CO3	To classify and discuss the pricing strategies.	K2, K6
CO4	To summarise and illustrate the BEP and Capital Budgeting.	K1, K2
CO5	To examine and discuss the investment appraisal.	K4, K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	3	3	3
CO2	3	3	3	3	3	3
CO3	3	3	3	3	3	3
CO4	3	3	3	3	3	2
CO5	3	3	3	3	3	3
Weightage	15	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

5. FINANCIAL ECONOMICS

Course Objectives:

1. To enhance the knowledge and skills of the students in different functional areas of economy with special reference to financial market and to work effectively in economic & financial sector institutions.
2. To enable students apply various theories in Financial Markets.

Unit I: 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 II: Theory of Uncertainty

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.

Unit III: Portfolio Theory

Measuring Portfolio Return and Risks - Effect of Diversification, Minimum Variance Portfolio - Perfectly Correlated Assets - Minimum Variance Opportunity Set - Optimal Portfolio Choice - Mean variance Frontier of Risky and Risk-Free Asset - Portfolio Weights.

Unit IV: Index Models

Models of Asset Returns - Multi Index Models - Single Index Model - Systematic and Specific Risk - Equilibrium Models-Capital Asset Pricing Model - Capital Market Line - Security Market Line - Estimation of Beta - Arbitrage Pricing Theory.

Unit V: Fixed Income Securities

Bond Prices - Spot Prices - Discount Factors and Arbitrage - Forward Rates and Yield - To - Maturity – Price Sensitivity -Hedging.

Text Books:

1. Copeland, T. E. and J. F. Weston(1992), Financial Theory and Corporate Policy, Addison Wesley.
2. Brealey, R. and Myers S (1997), Principles of Corporate Finance, fifth edition, New York, McGraw Hill.

References

1. Roy E.Baiky: The Economics of Financial Markets, Cambridge University Press.

2. Jaksa Cvitanie and Zapatiro Fernando: Introduction to the Economics and Mathematics of Financial Markets, MIT Press.
3. Chris Jones (2008), Financial Economics, the Taylor & Francis Group.

Web Resources:

1. https://www.worldscientific.com/worldscinet/afe
2. https://libraries.etsu.edu/research/guides/economicsandfinance/oerhttps://www.hrexaminer.com
3. https://www.teacheron.com/online-financial_economics-tutors

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the outline of Financial Economics and basic concepts therein.	K1, K2
CO2	Know the Theory of Uncertainty.	K2, K4, K5
CO3	Analyze the trends in Portfolio Management.	K1, K3, K4
CO4	Identify the various Index Models.	K2, K4
CO5	Gain insight on Securities Market.	K3, K2,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	2	3	3
CO2	3	3	3	2	3	3
CO3	3	3	3	2	3	3
CO4	3	3	2	3	3	3
CO5	3	3	2	3	2	3
Weightage	15	15	13	12	14	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	2.6	2.4	2.8	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value
1 – Low
2 – Medium
3 – High
0 – No Correlation

6. HISTORY OF ECONOMIC THOUGHT

Course Objectives:

1. To trace the evolution of Economic theories
2. To understand the contribution of the Economists.

Unit I: Introduction

Nature and Significance of the History of Economic Thought- Theoretical Approaches - Mercantilism - Factors that gave rise to Mercantilism - Role of the State - The role of money - Views of Thomas Mun - Factors that gave rise to Physiocracy - Main ideas of Physiocrats - Natural order - Laissez -Faire -Net Product-The Circulation of wealth -Criticism.

Unit II: Classical school Economic Thought

The Classical school - The essential features of Classical school- Adam Smith - Division of Labour - The theory of Value -Role of government -Canons of Taxation -Criticism- T.R.Malthus-Theory of Population-The Malthusian theory of Gluts -David Ricardo -Rent theory - Economic Principles of J.S.Mill -J.B.Say- Productive and Unproductive labour -Say's Law of Market.

Unit III: Historical School Economic Thought

Historical School-The essential ides of the Historical School -The Nationalists - Friedrich List - Economic ideas of List-Rise of Socialism - Karl Marx - Class struggle -Falling Rate of Profit - Marxian theory of Value - Marxian theory of Surplus Value -Criticism

Unit IV: Marginal Revolution

The Marginal Revolution -Essential Ideas - Gossen-William Stanley Jevons -Leon Walras-The Austrian School- Main principles of the Austrian School-Alfred Marshall-Neo Classicism- Knut Wicksell -J.B.Clark – Irving Fisher- The Institutionalist School- Economic ideas of Veblen.

Unit V: Keynesian Economic Thought

The Keynesian Revolution -Keynesian theory of Employment-The Consumption Function Marginal Propensity to consume and the Investment Multiplier -Role of Government -Criticism Welfare Economics -A.C.Pigou -J.R Hicks -Pareto.

Text Books:

1. Dr.S.Sankaran (2006) A History of Economic Thought ,Margham Publication
2. V.Lokanathan(2018), A History of Economic Thought , S.Chand Publications

Reference Books:

1. Haney L.H. (1913) History of Economic Thought ,The Macmillan Company, New York , U.S.A
2. Eric Roll (1956) A History of Economic Thought ,Prentice Hall ,INC,U.S.A,
3. Grey A.(1937) Development of Economic Doctrines, Longmans Green &Co, London

Web Resources:

1. https://www.exploring-economics.org
2. https://www.econlib.org

Course Outcomes (COs):

Upon Completion of this course, the students will be able to

S.No	Course Outcomes	K-Levels
CO1	Traces the evolution of economic thought	K_1, K_2, K_4
CO2	Acquire Knowledge about the economic idea of classical school	K_1,K_2, K_4
CO3	Ability to examine the economic ideas of List and Karl Marx	K_1,K_2, K_4
CO4	Understand the ideas of various school of Economics	K_1, K_2, K_4
CO5	Gains insight on theories of Keynesian and Welfare Economists	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	2	3	3
CO2	3	3	2	3	3	3
CO3	3	3	3	2	3	3
CO4	3	3	2	3	3	3
CO5	3	3	3	3	3	3
Weightage	15	15	13	13	15	15
Weighted percentage of Course Contribution to Pos	3	3	2.6	2.6	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

7. COMPUTER APPLICATIONS IN ECONOMICS

Course Objective

1. The aim of this course is to introduce some of quantitative as well as qualitative methods of data analysis with the help of computer applications
2. To equip skill in applying statistical tools to Economics using computers

Unit 1: Introduction about Data

What is data- Its Characteristics and Types – Importance of data in economic analysis and Policy Formation – Source of Data – Quantitative and Qualitative data analysis - Methods of Data Analysis

Unit 2: Introductions to MS Office

What is Suite – MS Word: Creating new Documents –Document template – Typing Text – Editing Text – Insert Text – Go to, Find, and Replace text or word - Formatting of Text – MS Excel – EXCEL: The typical worksheet or spread sheet – cell and their properties – formatting cell – Formula: using arithmetic and relational operators in a worksheet -Advanced Formulas: sum, count, Average, Max, Min, Product -Using auto format.

Unit 3: Graphs, Charts and introduction to statistical packages

Bar diagrams, pie charts, Area- Building Line Diagrams, Histograms, Scatter plots-Frequency Graphs, Ogive, Lorenz curve- Time Series – Introducing Statistical Packages – Uses – SPSS – GRETL – R Program –SAS – Eviews - STATA

Unit – 4 Data Analysis Using SPSS – I

Naming variables - Coding and Recoding of data - Arithmetic calculations with invariables-Descriptive Statistics: Frequencies, Descriptive, Explore, Cross Tabulation -Compare Means: One sample T- test, Independent Sample T – test, paired sample Ttest, One way ANOVA-Correlation: Bivariate, Partial- Regression: Linear, CurveEstimation, Multiple Regression.

Unit 5: Data Analysis Using SPSS – II

Classification: K-means cluster, Hierarchical cluster, Discriminant function – Nonparametric Test: Chi-square, Bi-nominal- Time Series – Exponential Smoothing, Autoregression, Seasonal Decomposition

Text Books:

1. Myers, J.L., & Well, A.D., &Lorch, R.F.,Jr. (2010). Research Design and Statistical Analysis (3rd Edition). Mahwah, NJ: Erlbaum. ISBN: 978-0-8058-6431-1
2. Urdan, T. (2010) Statistics in Plain English, 3rd Edition. New York: Routledge Psychology Press.

Reference books:

1. Parsons J.; Oja D.; Ageloff R.; Carey P (2010)New Perspectives on Microsoft Office Excel 2010, Comprehensive ,Course Technology (2010) First Edition
2. Manuals – SPSS, GRETL, R Program, SAS, Eviews, STATA
3. Lipschuztz M.M. and S. Lipschultz (1982), Theory and problems of Data processing : Schaum's Outline Series, (McGraw Hill, New York.

Web References

1. http://dspace.vnbrims.org:13000/jspui/bitstream/123456789/4679/1/The%20SAGE%20Handbook%20of%20Social%20Research%20Methods.pdf
2. https://archive.mu.ac.in/myweb_test/TYBA%20study%20material/Research%20Methodology%20-%20IX.pdf
3. https://imotions.com/blog/statistical-tools/

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Define, explain and categorize various data and its use in Economics	K1, K2, K4
CO2	To know how, demonstrate and evaluate various methodology to analyse and apply data using computer	K1, K2, K3 K4, K5
CO3	Build and draw inference by presenting data in diagrammatic way	K3, K4, K6
CO4	To find, explain and analyse parametric data and to evaluate and built models	K1, K2, K4, K5, K6
CO5	To find, explain and analyse non-parametric data and to evaluate and built models	K1, K2, K4, K5, K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**3**	**2**	**3**	**3**	**3**
CO2	**2**	**2**	**3**	**3**	**3**
CO3	**2**	**3**	**3**	**3**	**3**
CO4	**3**	**3**	**3**	**3**	**2**
CO5	**3**	**3**	**3**	**2**	**3**
Weightage	**13**	**13**	**15**	**14**	**14**
Weighted percentage of Course Contribution to Pos	**2.6**	**2.6**	**3.0**	**2.8**	**2.8**

Level of Correlation between PO's and PSO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

ABILITY AND SKILL ENHANCEMENT PAPERS

1. MANAGERIAL SKILLS

(Learning of Managerial Skill and Office Assistance – Clerical Job)

Course Objectives:

1. To develop administrative skills
2. To acquire modern management techniques

Unit I: Communication

Definition - Characteristics of communication - Purpose of communication – Importance - Process of communication - Barriers to communication - Principles of effective communication - Benefits of effective communication - Formal Business report - Business letter format

Unit II: Role of Manager in organization

Inter personal roles - Informal role - Decision Making roles, Levels of Management - Top Management - Upper Middle Management - Middle Management - Operating Management.

Unit III: **Types of Managerial Skills**

Technical skill, Human or Psychological Skill, Conceptual Skill, Diagnostic Skill, Design Skill, Analytical Skill, Decision making skill-Digital Skill, Interpersonal Skill, Planning and Administration Skill ,Teamwork Skill, Strategic Action skills, Global Awareness Skill, Self-management skill. Personal skills – Dedication, Persistence, Assertiveness.

Unit IV: Emotional Intelligence

Meaning, Personal Competencies, Self-Awareness, Self-regulation, Self-Motivation, Social Competencies, Empathy, Social Interpersonal Skills. Attitude –Meaning, Features of Attitude, sources of Attitude-Formation of attitudes-Values-Characteristics –types of Values

Unit V: Problem solving:

Steps in Analytical problem solving –attributes of good problem solving –Generating Alternatives –Evaluation and selection of an alternative. Team building-Developing Team and Team work-advantages

Text Books:

1. Dr.K.Alex (2015) Managerial Skills S,Chand New Delhi
2. S.A Rahmath Ameena Begum, Managerial Skill Development, Charulatha Publications, India

Reference:

1. E.H.Mc Grath ,S.J (2011) Basic Managerial Skills for All ,Prentice Hall India Learning Pvt Ltd, India
2. Cynthia MenezesPrabhu (2022) Managerial skills 2, Pen to print Publishing, India
3. Meir Liraz, How to Improve Your Leadership and Management Skills - Effective Strategies for Business Managers, Liraz Publishing

Web References:

1. https://elearningindustry.com/tips-improving-management-skills-in-online-training
2. https://corporatefinanceinstitute.com/resources/careers/soft-skills/management-skills/
3. https://www.itm.edu/blog/pgdm-what-makes-pgdm-in-operations-and-supply-chain-a-good-option-for-candidates-with-good-managerial-skills

Course Outcomes (COs):

Upon Completion of this course, the Students will be able

S.No	Course Outcomes	K-Levels
CO1	Understand the importance of communication	K_1, K_2, K_3 K_4
CO2	Learn about the pattern of Management	K_1,K_2, K_3,K_4
CO3	Types of Managerial skills and Personal skills	K_1,K_2, K_3 K_4
CO4	Practice Emotional Intelligence and Values	K_1, K_2, $K_3$$K_4$
CO5	Adopt Problem solving methods	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

2. BUSINESS MANAGEMENT WITH TALLY

(Learning of Tally for Employability)

Course Objectives:

1. To understand the nature of a business organization.
2. To learn data maintenance for a business organization.

Unit I: Simple Accounting Management

Pre-Defined accounting groups and flexible chart of accounting – Groups and Ledgers management – Multi Currency support – Post dated transactions

Unit II: Flexible purchase and Sales Management

GST complaint invoice – Multiple billing formats – Multiple price list and discount management – multiple mailing address – sales and purchase order processing

Unit III: Inventory Management

Physical stock Verification - Manufacture and expiry date management – Flexible unit of measurement – Job costing –Reorder level - Multiple stock valuations

Unit IV: Banking and Job work

Auto Configuration - Cheque book management – Auto Bank reconciliation – Post dated cheque management – E payment – Job Order and Work Processing

Unit V: Accounting and Financial Reports

Ledger reports – Cash/Bank Report – Bill receivable and payment – balance sheet – profit and loss A/C – Stock Summery – Stock Transfers – Order Summery

Text Books:

1. Tally.ERP 9 with GST in Simple Steps Paperback ,(2020) DT Editorial Services, India
2. Dr.Namrata Agrawal, Comdex Tally.ERP 9 Course Kit (2019), Dream tech press , India

References:

1. Asok .K.Nadhani (2018), Tall. ERP 9 Training Guide, BPB Publications, India
2. Vikas Gupta (2018), Comdex Tally.ERP 9 Course Kit with GST and MS Excel, Dream tech press ,India
3. Shraddha Singh, Tally Erp 9, VandS Publishers

Web Resources:

1. https://tallysolutions.com/learning-hub/
2. https://www.rivereastlibrary.org/Pages/Index/183493/tech-time-online-resources-with-tally

3. https://www.tallysoft.com/wp-content/uploads/2017/07/TallyExplorer-Manual_v5.1.0.0.pdf

Course Outcomes (COs):

Upon Completion of this course, the Students will be able

S.No	Course Outcomes	K-Levels
CO 1	Understand accounting and inventory Management	K_1, K_2, K_4
CO 2	Able to maintain Company data like Flexible purchase and Sales Management	K_1,K_2, K_3,K_4
CO 3	Develop skill in Inventory management	K_1,K_2, $K_3$$K_4$
CO 4	Learn to create Banking Transactions and E- payment	K_1, K_2, $K_3$$K_4$
CO 5	Acquire knowledge about Accounting and Inventory Reports in Tally ERP	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

3. LEADERSHIP QUALITY AND DEVELOPMENT

Course Objective:

1. This course would provide an understanding of the various aspects that would eventually help in becoming a Leader
2. To cultivate the leadership qualities among students

Unit I: Introduction

Leadership- Definition - Evolution and Growth of leadership- Theories of Leadership- Blake and Mouton's Managerial Grid- House's Path Goal Theory- Great Man Theory of Leadership.

Unit 2: Traits of a Leader

Developing Leadership Traits and Skills -Styles of Leadership-Difference between Leadership and Management- Authority Vs Leadership.

Unit 3: Motivation and Emotional Intelligence

Leadership and Motivation -Emotional Intelligence-Traits of an Ethical Leader- Cultural Dimensions of Leadership- Creating Personal Leadership Brand.

Unit 4: Group Leadership

Team Leadership - Conflict Management- Effective Negotiations- Group culture and dynamics.

Unit 5: Women and Leadership

Women Political Leaders- Women in Corporates- Concept of Glass Ceiling in the Workplace - Influential Indian Women in Corporate.

Textbooks:

1. Kavin Dalton (2013) Leadership and Management Development Pearson Education

2. Stephen R. Covey (2014)Principle-centered Leadership Harper Collins Publisher

References:

1. John Maxwell (2007) The 21 Irrefutable Laws of Leadership, Harper Collins Leadership
2. James M. Kouzes and Barry Z. Posner (2010) The Truth About Leadership, First Edition Jossey-Bass Publisher
3. Dr. Carrie Picardi (2021) Leadership Essentials You Always Wanted to Know (Self-Learning Management Series) First Edition Vibrant Publishers.

Web Resources:

1. https://www.mindtools.com/pages/article/newLDR_84.htm
2. https://www.imd.org/imd-reflections/reflection-page/leadership-styles/
3. https://www.thebalancecareers.com/conflict-management-skills-2059687

Course Outcomes (Cos):

Upon completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the importance of Leadership	K1, K4
CO2	Summarize the leadership Styles	K2,K5
CO3	Analyze the Motivation required for an Effective Leader	K4, K5
CO4	Formulate policies to understand Conflict Management	K4,K6
CO5	Explain the leadership styles of Women in Politics and Business	K2,K4,K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	14	15	15
Weighted percentage of Course Contribution to Pos	3	3	2.8	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

5. SOCIAL ENTREPRENEURSHIP IN HEALTH AND HYGIENE

Course Objectives:

1. To understand the social entrepreneurship, motivation and its health and hygienic\
2. To analyse Entrepreneurial motivation and to evaluate about the organizations for Internship and Observation Visits

Unit I Social Entrepreneurship

Entrepreneurship: Meaning, Concept, Definition, Theories - Entrepreneurship - Social Entrepreneurship and Innovation -Objectives - Importance and Significance - Characteristics and qualities of Entrepreneurs. - Skills for Entrepreneurship - Issues and challenges. - Business Ethics.

Unit II Entrepreneurial motivation

Motivating Factors - Motivation Theories: Maslow's Need Hierarchy Theory, McClelland's Acquired Need Theory - Government's Policy Actions towards Entrepreneurial promotion - Entrepreneurship Development Programme.

Unit III Entrepreneurship in health and hygienic

Vision and Mission - Planning, Organizing, Actuating and Control - Resources required (Money, Manpower, Machine, Material) - Training and Development - Networking with other organization -Innovative Ideas to deal with the context.

Unit IV Organizations for Internship and Observation Visits

Internship- Meaning - Significance of Internship - International Organizations (UNICEF) - Government Organizations (SBM) - NGOs (ESI) - Model villages.

Unit V: Activities as their Practicum

Seminars/group presentation on social entrepreneurship - Field visit and report writing -Critical Analysis of policies -Case studies

Text books:

1. Hisrich. (2011). Entrepreneurship. Tata McGraw-Hill Education.
2. Oates, David. (2009). A Guide to Entrepreneurship. Jaico Publishing House, Mumbai,Edn.

References:

1. Desai, Vasant. (2002). Project Management and Entrepreneurship. Mumbai: Himalaya Publishing House
2. Mohanty, S. K. (2005). Fundamentals of entrepreneurship. PHI Learning Pvt. Ltd..Kiesner, F. (Ed.). (2009). Creating entrepreneurs: making miracles happen. World scientific.
3. Sharma, S. (2021). Entrepreneurship development. PHI Learning Pvt. Ltd.

Web References:

1. https://www.who.int/
2. https://www.unicef.org/
3. https://www.weforum.org/

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able

No.	Course Outcomes	K-Levels
CO1	understand the social entrepreneurship and innovation	K1, K2, K3
CO2	Describe the entrepreneurial motivation and its theories	K3, K5
CO3	To attain knowledge about social entrepreneurship in health and hygiene	K2, K4
CO4	To provide an overview of various internship programmes offer by different organizations	K1, K2
CO5	To enable students acquire skills required for social entrepreneurship.	K1, K4, K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	2	3	3	3	2	3
CO2	3	3	3	3	2	3
CO3	3	2	3	2	2	3
CO4	3	2	2	2	3	3
CO5	3	2	2	2	3	3
Weightage	14	12	13	14	12	15
Weighted percentage of Course Contribution to Pos	2.8	2.4	2.6	2.8	2.4	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

6. PERSONALITY DEVELOPMENT

Course Objectives:

1. To mark the students able and effective leadership and personality development
2. To learn the self-evaluation skill

Unit I: Concept of Personality

Personality - Definition and meaning, Importance, Leadership and Management, Leader vs Manager, Essential qualities of an effective leader

Unit II: **Personality Characteristics**

Personality: Concept and Definition, Determinants of personality, Personality traits, Personality characteristics in organizations

Unit III: Self-evaluation

Self-evaluation, Locus of control, Self-efficacy, Self-esteem, Self-monitoring: Positive and negative Impact. Organizational Context of Leadership and Personality - Contemporary Business Leaders.

Unit IV: Qualities of Personality Development

Body language - Problem-solving - Conflict and Stress Management - Decision-making skills - Character building -Team-work – Time management - Work ethics and etiquette.

Unit V: Aspects of Employability

Resume building- Interactive session – Facing the Personal (HR & Technical) Interview – Self Introduction - Psychometric Analysis - Mock Interview Sessions.

Textbooks:

1. Parikh, M., & Gupta, R. K. (2010). *Organisational behaviour*. Tata McGraw Hill Education Pte. Limited.
2. Mullins, L. J., & McLean, J. E. (2019). *Organisational behaviour in the workplace*. Harlow: Pearson.

References:

1. Hofmann, D. A., & Jones, L. M. (2005). Leadership, collective personality, and performance. *Journal of Applied psychology*, *90*(3), 509.
2. Aurther, J. (2006). *Personality development*. Lotus Press.
3. Roberts, B. W. (2006). Personality development and organizational behavior. *Research in organizational behavior*, *27*, 1-40.

Web References

1. https://hbr.org/2017/09/could-your-personality-derail-your-career
2. https://au.indeed.com/career-advice/resumes-cover-letters/personal-skills

3.https://socialsci.libretexts.org/Courses/College_of_the_Canyons/COMS_246%3A_Interpersonal_Communication_(Leonard)/2%3A_Communication_and_the_Self/2.1%3A_Self-Concept%2C_Self-Esteem_and_Self-Efficacy

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able to

No.	**Course Outcomes**	**K-Levels**
CO1	Understand the importance of personality development	K1, K2, K3
CO2	To evaluate the Characteristics of Personality	K3, K5
CO3	Examine and analyse the concept of Self-evaluation	K2, K4
CO4	Describes the concept of Qualities of Personality Development	K1, K2
CO5	Create the self-evaluation and Organizational Context of Leadership and Personality	K1, K4, K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	**PSO 1**	**PSO 2**	**PSO 3**	**PSO 4**	**PSO 5**	**PSO 6**
CO1	2	3	3	3	2	3
CO2	3	3	3	3	2	3
CO3	3	2	3	2	2	3
CO4	3	2	2	2	3	3
CO5	3	2	2	2	3	3
Weightage	14	12	13	14	12	15
Weighted percentage of Course Contribution to Pos	2.8	2.4	2.6	2.8	2.4	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

7. COMMUNICATION SKILL AND REPORT WRITING

Course Objectives:

1. To enable the student to have effective communication and presentation
2. To encourage and equip the students the write report dexterously

Unit I: Defining the Features of Technical Writing and Presentations

Principles of a Technical Report · Know Your Audience, Purpose and Length of Report · Understand the cornerstones of a presentation · Define the various purposes of presentations and plan the correct structure.

Unit II: Plan and Structure: Writing and Speaking with Purpose

Headings, Chapters and sections · Running headers and footers · Types of reports and templates to use · Main Idea and Arranging Details in Logical Sequence · Writing styles and techniques - Focus on your audience's needs · Word choice, tone, and what to include.

UNIT III: Audience Awareness and Editing

Use correct grammar and punctuation to avoid common errors in reports and oral presentations - Create a professional, readable and visually attractive report and oral presentation - editing process.

Unit IV: Group Practice and Interactive Session

Spotting common language problems (Lengthy and confusing sentence structures, weak vocabulary, etc) · Editing Content, Logic and Language in speech and writing · Guided writing practice with examples (Participants are to bring along their reports for group learning, editing and discussion) · Drafting – the mindset to avoid writer's block · Checking your own reports and presentations · Giving and receiving constructive feedback – effectiveness of review.

Unit V: From Written Report to Verbal Presentation

Gather, analyse, organise and deliver technical information meaningfully · Use rhetorical devices and elements of persuasion to engage your audience.

Text Books:

1. Powell, M. (2011). Dynamic presentations. Student's book with audio CDs. Germany: Cambridge University Press.

2. Allison, J., Powell, M. (2014). In Company 3.0: Upper Intermediate. Germany: Macmillan.

References:

1. Mort, S. (2017). Professional Report Writing. United Kingdom: Taylor and Francis. (drawn from the list prescribed by AICTE)

2. Sharma, S., Raman, M. (2015). Technical Communication: Principles and Practice. India: Oxford University Press.
3. Effective Communication Skills. (2016). India: KHANNA Publishers.

Web Resources:

1. https://owl.excelsior.edu/esl-wow/
2. https://owl.purdue.edu/
3. https://boisestate.pressbooks.pub/anintroductiontotechnicalcommunication/front-matter/introduction/

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able to

No.	Course Outcomes	K-Levels
CO1	Develop the purpose, goal of writing and speech, and an approach of persuading the audience.	K1,K2
CO2	Order and structure the material and the flow of information to support argument in speech and writing.	K2,K3
CO3	Create a report outline to link sections to support the persuasive message.	K2,K3,K5
CO4	Present experimental data using the principles of statistical analysis.	K2,K6
CO5	Edit technical documents by efficiently structuring the data and avoiding common infelicities of style.	K5,K6

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

8. ECONOMICS OF MSMES

Course Objectives:

1. To enlight the students on various opportunities to start a small scale business and the understand the structure of MSMEs in India
2. To educate students about the schemes and policies in India for companies and banking

Unit I: MSMES in India

Concept of Entrepreneur and Entrepreneurship - Quality and Characteristics of Entrepreneurs - Overview and History of Entrepreneurship - Definition - Overview - History of SMEs in India - Performance(Role/Economic Indicators) - Production - Employment and Export Opportunities in MSMEs - Steps involved in setting up MSMEs.

Unit II: Programs Schemes and Services - I

Schemes Implemented by the ministry/through DC (MSME) Scheme - Scheme under XI Plan - Micro and Small Enterprise Cluster Development Program - Credit Linked Capital Subsidy Scheme for Technology Up gradation - Credit Guarantee Scheme - Assistance to Entrepreneurship Development Institutes. Programs and schemes of ministry of MSME Special Schemes for Backward area (State and UT to be considered backward and industrially backward Districts) Scheme on trade related entrepreneurship assistance and development (TREAD) for women Promotional Schemes for Women, Schemes Of NSIC, KVIC, COIR Board.

UNIT III: Programs, Schemes and Services - II

Programs and schemes of ministry of MSME - Special Schemes for Backward area (State and UT to be considered backward and industrially backward Districts) - Scheme on trade related entrepreneurship assistance and development (TREAD) for women - Promotional Schemes for Women - Schemes of NSIC,KVIC,COIR Board.

Unit IV: MSME Policies

Central Government Policies - SME and Export Promotion Policy - The MSME Development Act, 2006 – Recent Policies on MSMEs

Unit V: Emerging Trends and Institutions Supporting MSME

Overview of World Trade Organization, Intellectual property rights, INSME - (International SME Network) - Bar Coding.

Text Books:

1. Vasant Desai, The Dynamics Of Entrepreneurial Development And Management, Himalaya Publishing House
2. Paul Burns and Jim Dewhurst, Small Business and Entrepreneurship, Palgrave Macmillan; 2nd edition

References:

1. Gupta C.B. and Srinivasan N.P., Entrepreneurship development in India, Sulthan Chand and Sons
2. Kamal Garg, Bharat's Handbook on MSMEs (Micro, Small and Medium Enterprises), Bharat Law House Pvt. Ltd.
3. Indian Institute of Banking and Finance, Micro, Small and Medium Enterprises (MSMEs), TAXMANN

Web Resources:

1. https://msme.gov.in/public-procrument-policy
2. https://www.wto.org/english/thewto_e/thewto_e.htm
3. http://coirboard.gov.in/?page_id=221

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able

No.	Course Outcomes	K-Levels
CO1	To define MSME and to explain the history of it in India	K1,K2
CO2	To summarize and identify numerous schemes for MSMEs	K2,K3, K4
CO3	To analyze and illustrate the programs for women and economic backward	K2,K4
CO4	To know the functions of and discuss about MSME development Act	K4, K6
CO5	To evaluate and estimate the role of WTO in the functioning of MSMEs	K5,K6

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

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