FOURTH YEAR: SEMESTER-VII

Advanced Microeconomics

S/ECO/704/MJC-17

Credit- 04 **Full Marks: 50** **Classes: 60 (Lectures)**

Course Description:

Advanced Microeconomics is a graduate or senior-level course providing a rigorous, mathematical treatment of economic theory, focusing on consumer/firm behavior, market structures, and equilibrium analysis

A. PREFERENCE RELATION AND CONSUMER BEHAVIOUR (10 Lectures)

Axioms of consumer choice: Utility maximization-Ordinary and compensated demand function - Indirect utility function- Roy' identity.

Expenditure function -Properties- Additive and Separable utility function- Quasi linear utility function

B.THEORY OF PRODUCTION (08 Lectures)

General equilibrium in Production- Derivation of Production Possibility Frontier (PPF) -Variable Elasticity Substitution (VES) production function -Homogeneous and Homothetic production function with example.

Derived demand for inputs-Duality in production

C. MARKETS (06 Lectures)

Welfare comparison under perfect competition and monopoly.

Natural Monopoly - Sub-additivity of Cost Function- Monopsony Market.

Oligopoly models –Bertrand and models.

Game Theoretic Index.

D. ECONOMICS OF UNCERTAINTY (12 Lectures)

Expected utility theory-Risk aversion and information economics (adverse selection, signaling, and screening) - Von –Neumann Morgenstern expected utility function- properties of expected utility function- Positive affine transformation -Arrow Pratt measure of absolute and relative risk aversion: examples

E. ASYMMETRIC INFORMATION (08 Lectures)

Economics of information- Akerlof's model-The market for Lemons- Principal Agent Problem

F. GENERAL EQUILIBRIUM AND WELFARE ECONOMICS (16 Lectures)

The concept of general equilibrium- Existence, uniqueness and stability of general equilibrium- Brower's fixed point theorem

Social welfare function -Pareto conditions for efficient allocation -First and second fundamental theorem of welfare economics - The theory of second best- Arrow's social welfare function-General possibility theorem- Statements only.

Compensation principle: Kaldor - Hicks - Scitovsky

References:

1. Vaian,H.R (1978): Microeconomic Analysis, W.W,Norton , New York.
2. Mass-Colel,A, Whinston .M ,and Green.J, (1995) ; Microeconomic Theory, Oxford University Press, New Delhi.
3. Gibbons, R. (1992):Game Theory of Applied Economics, PrincetonUniversityPress, Princeton, New Jesery
4. Please add some References

FOURTH YEAR: SEMESTER-VII

Decision Theory

S/ECO/702/MJC-18

Credit- 04 **Full Marks: 50** **Classes: 60 (Lectures)**

Course Description:

Decision Theory courses analyze methods for selecting optimal actions and uncertainty, covering decision-making, environments, Expected Monetary Value (EMV), Expected Opportunity Loss (EOP). This Theory teaches evaluating alternatives, Probabilities of states of Nature and maximizes utility in business / economic context. So, Decision Theory deals with methods for determining optimal course of action when a number of alternatives are available and their consequence cannot be forecast with certainty.

A. Decision Theory and Human Behaviour:

Purpose of Decision Theory in Economics **(20 Lectures)**

Theoretical Aspects:

Normative Vs. Descriptive Theory- Bounded Rationality Theory-Prospective Theory

Psychological Factors in Decision Theory:

Emotion & Intuition / Influence -Perception – Self Control and Motivation – Motivation and Goal - Decision Theory and Mortality.

B. Risk and Uncertainty in Decision Theory: **(10 Lectures)**

Risk and Uncertainty theory – Difference between risk and uncertainty.

Decision under risk: Expected monetary value- Expected opportunity loss.

C. Social Choice & Analytical methods Theory: **(15 Lectures)**

Social Influence- Group Decision making – AI and Human Collaboration.

Modeling Multistage Decision Problem-Sequential Decision Making-Decision Tree analysis.

D. Organizational Behaviour of Decision Theory **(15 Lectures)**

Meaning of Organizational behavior in Decision Theory – Organizational concepts – Characteristics of Organizational Behaviors.

Main topics on Organizational Behaviors:

Collaboration – Diversity & Inclusion – Performance Management – Skill & Learning – Work-Life Balance – External Environment.

References:

1. Social Economics-Market behavior in a Social Environment-Gray S. Becker and Kevin M. Murphy.
2. Social and Economic Problems in India Heed Publication Pvt Ltd.
3. Objective Economic and Social Development-Dr. Udaybhan Singh.
4. Economic and Social Issues India and International-Ishwar C. Dhingra.
5. Economics of Social Sector and Environment- S.C.SRIVASTAVA & SANGYA SRIVASTAV
6. Social Economics – Premises, Findings and Policies- Edited by EdwardJ. O' Boyle (New Developments in Social Economics).
7. Quantitative technique in management N.D. Vohra

FOURTH YEAR: SEMESTER-VII

Research Methodology

S/ECO/734/MJC-19

Credit- 04 **Full Marks: 50** **Classes: 60 (Lectures)**

Course Description:
Course Outcome

By the end of this course, students will be able to:

Understand the nature, scope, and importance of research in economics. Formulate a clear research problem, research questions, and hypotheses. Design a suitable research methodology (qualitative, quantitative, or mixed).Apply sampling techniques and data collection methods relevant to economic research. Use statistical and econometric tools for data analysis and interpretation. Write a structured research report/thesis and understand research ethics and plagiarism.

A. Basics of Communication and Writing Skills. **(06 Lectures)**

- Academic Writing, Grammar and Editing.
- English Language Teaching, Lecturing in English.
- Presentation Techniques and Personality Development.
- Audience analysis and persuasion techniques.
- Research topic related presentation and error correction through constructive feedback.

B. Introduction to Research in Economics **(06 Lectures)**

- Characteristics of good research-steps in the research process.-Role of theory and empiricism Deductive vs. Inductive approaches.
- **Language of research:** Concept, Construct, Variable, Proposition, Hypothesis - Sources of research problems in Economics (Policy issues, Gaps in literature, Real-world problems)-Formulating a research problem and research questions.

C. Introduction to research design **(08 Lectures)**

- Meaning -Objectives, and Motivation for Research in Economics.
- **Types of research:** Descriptive, Exploratory, Explanatory, Applied, and Fundamental. Concept and importance of research design-Features of a good research design-
- **Types of research design:** Exploratory research design (case study, focus group, interviews)-Descriptive research design (survey, census, observational studies)-Experimental and quasi-experimental designs (before-after, treatment group, control group)-Concept of independent, dependent, and control variables-Operationalization of variables in economic research (e.g., Poverty, Unemployment, Inequality, Development).

C. Data Collection and Measurement (10 Lectures)

Sources of data: Primary and Secondary-Methods of primary data collection-Questionnaire design (open-ended, closed-ended, Likert scale)-Interview techniques (Structured, Semi-structured, Unstructured)-Observation and case study methods-Secondary data sources in Economics -NSSO, NFHS, Census of India and RBI reports, Economic Survey, Budget documents, World Bank, IMF, UN databases.

Concept of measurement in research: Levels of measurement (Nominal, Ordinal, Interval, Ratio)-Validity and reliability of measurement in economic research.

D. Sampling Techniques (08 Lectures)

Concept of population, Sample, Parameter, Statistic, Sampling frame, Sampling error--Probability sampling methods-Simple random sampling with replacement and without replacement, Systematic sampling, Stratified random sampling, Multistage sampling-Non-probability sampling methods-Convenience, Purposive, Quota, Snowball sampling.

Determining sample size: Practical considerations and formulae (for means and proportions)-Sampling problems in economic research (Heterogeneity, Non-response, Coverage error).

Case study: Sampling design for a survey on rural employment or urban poverty.

E. Data Processing and Analysis (07 Lectures)

Data preparation: Coding-Editing-Data entry-Handling missing data-Univariate analysis-Frequency tables-Bar charts, Pie charts, Histograms, Measures of central tendency (mean, median, mode), Measures of dispersion (Range, Standard deviation, Coefficient of variation)-Bivariate analysis-Cross-tabulation-Coefficient of association-Correlation coefficient

Introduction to hypothesis testing: t-test-z-test- F-test (conceptual understanding, interpretation of p-values).

F. **Practical on Research Report Writing and Ethics** (15 Lectures)

Practical Section: Statistical Analysis of Research Methodology

Use of software: Introduction to MS Excel for basic data analysis (Pivot tables, Charts, Descriptive statistics)

Structure of a research report/thesis: Title- Abstract- Introduction-Literature review-Objectives-Methodology-Data analysis-Findings-Conclusion-Recommendations-Bibliography.

Writing style in economics: Clarity-Objectivity-Logical flow-Use of tables-Figures and Graphs in reporting

Referencing styles: APA, MLA, Chicago (with examples from economics journals)-Research ethics-Plagiarism-Use of plagiarism detection tools)

Publishing in economics: Types of journals- Impact factor-Open access- Predatory journals-Review of a published economics research paper.

Suggested Readings:

- Kothari, C. R. (2004). *Research Methodology: Methods and Techniques*.
- Singh, Y. K. (2011). *Fundamentals of Research Methodology and Statistics*.
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods*.
- Bryman, A., & Bell, E. (2015). *Business Research Methods*.
- Government of India: *Economic Survey* and *National Sample Survey Reports*.
- Gupta, S. P. (2011). *Statistical Methods*.
- Gujarati, D. N. (2009). *Basic Econometrics* (for basic regression concepts).
- American Economic Association (AEA) *Guidelines for Professional Conduct*.
- *essional Conduct.*

FOURTH YEAR: SEMESTER-VII

Social Economics

S/ECO/704/MJC-20

Credit- 04 Full Marks: 50 Classes: 60 (Lectures)

Course Description:

Social economic" (or socio-economic) refers to the study of how social factors (norms, behavior, class, culture and health) and economic factors (income, wealth, jobs) influence each other and shape society, focusing on the interplay between human behavior and financial systems, often analyzing issues like inequality, poverty, and consumer trends. It's a field that blends economics with sociology, history, and philosophy to understand complex societal dynamics beyond just numbers.

A. Introduction to Social Economics (10 Lectures)

Meaning and Scope: Definition of social economics- Distinction from mainstream economics. Key aspects: Interdependence of social and economic phenomena- Role of values, institutions, and norms.
Social Sectors: Definition, features, and examples (education, health, housing, water and sanitation). Issues and challenges of social sectors in India: underfunding, access disparities, quality concerns, and institutional bottlenecks.
Relevance of Social Economics in India: Why a social economics perspective is crucial for analyzing India’s development trajectory, persistent inequalities, and diverse social fabric.

B. Key Socio-Economic Issues in India (15 Lectures)

Poverty: Multidimensional nature (income, health, education, standard of living)- Trends, Causes, and policy responses (e.g., NFSA, MGNREGA).
Unemployment: Nature (disguised, seasonal, structural, and cyclical) and measurement challenges- Impact on social stability and economic growth.
Inequality: Economic inequality (income, wealth) and social inequality (caste, gender, region)-Their intersection and reinforcing effects.
Food Security: Dimensions (availability, access, absorption)-The role of public distribution systems, nutrition programs, and the challenges of malnutrition.

C. Social Groups, Participation, and Sustainable Development (10 Lectures)

Social Groups in Development: Meaning and characteristics of social groups (Communities, Co -operatives, Self-help groups, Caste-based groups).
Participatory Development: Concept and importance of participatory approaches (Participatory rural appraisal, Community-led development) for socially sustainable outcomes.

Community and Sustainability: Role of community in attaining sustainable development (Social, Economic, and Environmental dimensions) - Case studies from India.

D. Social Sectors in India: Policies and Performance (10 Lectures)

Education: Policies (e.g., NEP 2020, RTE Act)- achievements in enrolment-challenges of quality, learning outcomes, and digital divide.
Health: Public health infrastructure-Ayushman Bharat-Challenges of out-of-pocket expenditure-Communicable and non-communicable diseases.
Housing and Basic Amenities: PMAY, Swachha- Bharat Mission- Access to water and sanitation.

F. Practical Analysis on Addressing Social Problems (15 Lectures)

<u>Practical Section: Statistical Analysis of Social Issues</u>

Objective: To equip students with the skills to use secondary data for empirical understanding of social issues in India. Students will learn to apply basic statistical tools to real-world data, primarily from the National Sample Survey (NSS).

Tools and Techniques: (To be conducted using spreadsheet software like MS Excel or statistical software like R or SPSS)

Data Source: Access and understand the structure of secondary data, e.g., NSS Round 72 (Household Expenditure on Services and Durable Goods) or similar rounds on health, education, or consumption.

Data Organization:

Frequency Distribution: Creating frequency tables for categorical variables (e.g., social group, sector - rural/urban, education level).

Bi-variate Cross Tabulation: Constructing cross-tabs to examine relationships (e.g., social group vs. average household expenditure, gender vs. literacy rate).

Data Analysis and Inference:

Correlation Analysis: Calculating and interpreting correlation coefficients to measure the strength and direction of relationships (e.g., between education levels and income, between health expenditure and poverty).

Curve Fitting and Regression Analysis: Fitting a simple linear regression line to understand the relationship between two continuous variables (e.g., predicting household expenditure based on household size, or literacy rates based on per capita income). Introduction to interpretation of regression coefficients.

Practical Deliverables: Students will work on a group project culminating in a short report that uses at least two of the above tools to analyze a specific social issue (e.g., "A comparative analysis of education expenditure across social groups in India using NSS data").

References:

1. Becker, G. S., & Murphy, K. M. (2000). *Social Economics: Market Behavior in a Social Environment*. Harvard University Press.
2. Dhingra, I. C. (Latest Edition). *Economic and Social Issues in India and International*. Sultan Chand & Sons.
3. O'Boyle, E. J. (Ed.). (Latest Edition). *Social Economics: Premises, Findings and Policies*. Routledge (New Developments in Social Economics).
4. Singh, U. (Latest Edition). *Objective Economic and Social Development*. Heed Publications.
5. *Economic and Social Problems in India*. Heed Publications.
6. Dreze, J., & Sen, A. (2013). *An Uncertain Glory: India and its Contradictions*. Princeton University Press. (For Indian context)
7. Government of India, Ministry of Statistics and Programme Implementation. *Reports from National Sample Survey (NSS) Rounds*. (For practical work)

FOURTH YEAR: SEMESTER-VII

Social Economics

S/ECO/705/MN-7

Credit- 04 **Full Marks: 50** **Classes: 60 (Lectures)**

Course Description:

Social economics (or socioeconomics) studies the bidirectional relationship between economic activity and social behavior, prioritizing societal needs, sustainability, and equity over profit maximization. It analyzes how social norms, ethics, and institutions influence economic decision-making, often focusing on income inequality, poverty, and community-based, non-profit, or cooperative business models.

A. Introduction: **(10 Lectures)**

Meaning of Social Economics-Key Aspects of Social Economics- Definition, Impact and understanding of Social Economics-Types of Social Economics- Degree of Social and Economic factors.

B. Social and Economic Factor in Social Economics: **(10Lectures)**

Definition of social economic factors-Key features of Socio-economic factors- Relevance of the– Impact of Socio-economic factors.

C. Social Economy and Social Groups: **(20 Lectures)**

Meaning of Social Economy and Social Groups-Characteristics of Social Groups-Common Socio-Economic Issues- Example of Social Groups- Social Economic Development and Purpose of Socio-Economic Development.

D. Social Sectors and Social Economics in India **(20 Lectures)**

Meaning of Social Sectors with example-Issues and Challenges of Social Sectors in India- Economic and Social Progress in India- Concept of Social Economics- Relevance of Social Economics in India- Impact of Social Economics in India- Socio- Economic Challenges in India- Discussion of Poverty, Unemployment, Inequality and Food Security in Indian perspective.

References:

1. Social Economics-Market behavior in a Social Environment-Gray S. Becker and Kevin M. Murphy.
2. Social and Economic Problems in India Heed Publication Pvt Ltd.
3. Objective Economic and Social Development-Dr. Udaybhan Singh.
4. Economic and Social Issues India and International-Ishwar C. Dhingra.
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