MEC-101

UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA

M.A. ECONOMICS SYLLABUS

MICRO ECONOMIC ANALYSIS – I

SEMESTER-I

CREDIT-4 **TOTAL MARKS-100**

Unit 1. Introduction:-

Micro Economics: - Nature, Scope, Importance & Limitations, Methodology of Economics:- Deductive V/s Inductive, Economics - Statics & Dynamics, Basic Economic Problems:- Scarcity & Choice, Price Mechanism:- Functions & Limitations.

Unit 2. Demand Analysis –

Cardinal Utility Approach- Law of Diminishing Marginal Utility, Consumer's equilibrium, Derivation of Demand Curve, Law of Demand, Ordinal Utility Approach:- Indifference curve, Properties: Consumer's equilibrium, Price, income & substitution effects, Derivation of Demand Curve, Revealed Preference Theory of Demand, Recent Development in Demand Theory:- Hicksian Revised Theory – Neumann – Morgenstern Statistical Utility Theory, Armstrong's Marginal Preference Theory .

Unit 3. Consumer Surplus and Elasticity of Demand:-

Consumer Surplus:- Meaning, Marshall's Measurement of Consumer Surplus, Measurement of Consumer Surplus through indifference Curve analysis, Critical Evaluation, Elasticity of Demand:-Meaning, Price Elasticity of Demand, Measurement of Price elasticity, Income Elasticity of Demand, Cross Elasticity of Demand, Numerical Problems .

Unit 4. Theory of Production:

Supply Analysis: Economies of Scale:- Internal Economies and Diseconomies, External Economies and Diseconomies, Production Possibility Curve, Production Function :- Law of Variable Proportions, Returns to Scale, Isoquants:-Properties, Producer's equilibrium, Linear Homogenous Production Function, Cobb -Douglas Production Function and CES Production Function

Unit 5. Cost and Revenue

Cost Concepts: - Accounting and Economic Cost, Private Cost and Social Cost, Opportunity Cost, Fixed and Variable Cost, Average, Marginal and Total Cost, Numerical Problems, Short Run and Long Run Cost Curves, Revenue Concepts: - Average, Marginal and Total Revenue, Numerical Problems.

Recommended Readings:

1. Stigler G., *Theory of Price*, Prentice Hall of India, New Delhi.
2. Sen A., *Microeconomics: Theory and Application*, Oxford University Press, New Delhi.
3. Kreps David M., A Course in Microeconomic Theory, Princeton University Press, Princeton.
4. Samuelson, P.A. and W.O. Nordhaus, *Economics*, Tata McGraw Hill, New Delhi.
5. Verian H., *Microeconomic Analysis*, W.W Norton New Yark.
6. Koutsoyiannis, A., *Modern Microeconomics*, Macmillan Press, London.
7. Madalla and Miller, *Microeconomics*, Tata McGraw Hill.
8. Salvatore, D. Micro economics *Microeconomics: Theory and Applications*, OUP, New Delhi.

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UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA
M.A. ECONOMICS SYLLABUS
MACRO ECONOMIC ANALYSIS-I
SEMESTER-I

CREDIT-4 **TOTAL MARKS-100**

Unit 1. National Income and Accounts:

Key concepts in Macro Economics, Circular flow of income: two three and four sector economy – different forms of national income accounting, flow of funds accounting and balance of payment accounting, Social Accounting

Unit 2. Consumption Function

Keynes Psychological law of consumption – Implications of the law of consumption – short run and long run consumption function ; Empirical evidence of consumption function, Income consumption relationship – absolute income, relative income, life cycle and permanent income hypothesis.

Unit 3. Investment Function

Marginal efficiency of capital and investment — long run and short run; Investment Multiplier, The accelerator and investment behavior.

Unit 4. Supply of Money

Financial intermediation — a mechanistic model of bank deposit determination; A behavioural model of money supply determination, a demand determined money supply process; RBI approach to money supply; High powered money and money multiplier; budget deficits and money supply;

Unit 5. Demand for Money

Classical approach to demand for money, Quantity theory approach, Fisher‘s equation, Cambridge quantity theory, Keynes‘s liquidity preference approach, transaction, precautionary and speculative demand for money, Liquidity trap — aggregate demand for money; Derivation of LM curve.

Recommended Readings:

1. Ackley,G., *Macroeconomics* : Theory and Policy, Macmillan, New York.
2. Dornbusch, R. and F. Stanley, *Macroeconomics*, McGraw Hill, Inc., New York.
3. Hall, R.E. and J.B. Taylor, *Macroeconomics,* W.W. Norton, New York.
4. Heijdra, B.J. and V.P. Fredericck, *Foundations of Modern Macroeconomics*, OxfordUniversity Press, New Delhi.
5. Jha, R., *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., NewDelhi.
6. Soderstein, B., *International Economics*, Tata McGraw Hill.

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UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA
M.A. ECONOMICS SYLLABUS
POPULATION AND HUMAN RESOURCE
SEMESTER-I

Unit – 1: **Basic Theories and Concepts**

The Multhusian Theory of Population - Theory of Optimum Population - Theory of Demographic Transition -Sources of Population Data - Population Pyramids

Unit – 2: Elements of Vital Statistics

Vital Rates: Measures of Fertility – Crude Birth Rate, General Fertility Rate, Age Specific Fertility Rates, Measures of Reproductivity – Total Fertility Rate, Gross Reproduction Rate, Net Reproduction Rate – Measures of Mortality – Crude Death Rates, Age Specific Death Rates, Concept of Infant Mortality Rate, Life Table –Concept, Types and Uses, The Different Columns of a Complete Life Table

Unit – 3: Population Change and Indian Population

Population Change: Concepts and Measurement - Characteristics of Indian Population as Revealed by the Latest Census.

Unit –4: Economics of Education

Education and Economic Development –Cost –Benefit Analysis of Education –Public and Private Financing of Education: Criteria for Adequacy of Education Finance– Financing of Education and Equity – Financing for Higher Education in India and its Problems. Concept of Brain Drain, Brain Drain and Underdeveloped Countries.

Unit – 5: Health Economics

Health and Economic Development –Cost-benefit Analysis of Health Care facilities, Some Undergoing Health Schemes of the Northeastren States.

Recommended Readings:

1. Bhende, A., and R. Kanitkar, *Principles of Population Studies* Himalaya
2. Gupta and Kapoor, *Fundamentals of Applied Statistics*. Sultan Chand & nCo.
3. Goon, Gupta, Das Gupta, *Fundamentals of Statistics*, Vol. II. The World Press Pvt. Ltd., Kolkata
4. Ramkumar, R, *Technical Demography*.Wiley Eastern
5. G. Psacharopolous (ed), *Economics of Education* Perdgaman Press.
6. Ian Beardwell and Len Holden (ed*), Human Resource Management – Contemporary Perspective*, McMillan.
7. M.P.Todaro *Economic Development in the Third World*, Orient Longman

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UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA
M.A. ECONOMICS SYLLABUS
MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS -I
SEMESTER-I

Unit –1: Matrix Algebra and its Application

Matrix Algebra-type of matrices-matrix operations-matrix inversion and solution of simultaneous equations-Crammer's rule -Rank of a matrix-trace of a matrix-application to partial equilibrium market model, national income model, external sector model-static and dynamic open input-output models.

Unit –2: Unconstrained Optimization

Unconstrained maxima and minima with a single explanatory variable – applications to cost minimization, revenue maximization, tax revenue maximization, profit maximization and equilibrium of firm, Unconstrained maxima and minima with more than one explanatory variables – applications to discriminatory monopoly, Multiproduct equilibrium, Multiplan equilibrium, equilibrium of firm with advertisement cost and subsidy.

Unit – 3: Optimization with Equality Constraint

Optimization with equality constraints, Lagrange's multiplier method – application to consumer's equilibrium and producer's equilibrium in factor market.

Unit – 4: Optimization with inequality constraint

Liner programming, General formulation Transportation problem, diet problem and production problem – Simplex method of solution (two variables, two constraints only) – Concept of duality

Recommended Readings:

1. A.C. Chiang, "*Fundamental Methods of Mathematical Economics*", McGraw Hill.
2. S. Baruah, "*Basic Mathematics and its Economics Applications*", MacMillan.
3.J.M.Henderson and R.E.Quandt, *"Micro-economic Theory – A Mathematical Treatment*."
4. R.G.D. Allen, "*Mathematical Analysis for Economists*."
5. Mouhammed, "*Introduction into Mathematical Economics*", Prentice Hall of India.
6. M. Metwally, "Mathematical Treatment of Micro-Economics."

UNIVERSITY OF SCIENCE AND TECHNOLOGY, MEGHALAYA
M.A. ECONOMICS SYLLABUS
MEC- 105
CC-V
STATISTICAL METHODS FOR ECONOMIC ANALYSIS
SEMESTER-I

CREDIT-4 **TOTAL MARKS-100**

Unit – 1: Probability Theory

Axiomatic Definition and derivation of Basic Probability Rules – Conditional Probability, Baye's Theorem (Concept only) – Random variable – Mathematical Expectation and Moments relating to both Discrete and Continuous random variables.

Unit – 2: Theoretical Probability Distributions

Binomial, Poisson and Normal Distributions with Properties – Moment Generating Function –The Central Limit Theory (without Proof).

Unit – 3: Sampling and Estimation

Concept of Sampling Distribution and Standard Error of a Statistic – Methods of Estimation Principles of Moments, Least Square and Maximum Likelihood (Concept only)- Characteristics of a Good Estimator

Unit – 4: Simple Regression Model

Two Variable Linear Regression – OLS estimation – Properties of the Estimators.

Unit – 5: Statistical Inference

Testing of Hypothesis: Type I and Type II Errors, One-tailed and Two-tailed Tests – Test based on Standard Normal, t and Chi-Square Distributions.

Recommended Readings:

1. Yamane, Taro, "Statistics – An Introductory Analysis".
2. Hooda, P.R., "Statistics for Business and Economics", Macmillan.
3. Gupta, S.C. and Kapoor, U.K., "Fundamentals of Mathematical Statistics"
4. Nagar, A.L. and Das, R.K., "Basic Statistics", Oxford.
5. Agarwala, B.L., "Basic Statistics", New Age International.
6. Salvatore, Dominick and Reagle, Darrick, "Statistics and Econometrics", TMH
7. Goon Gupta, Das Gupta, "Fundamental of Statistics, Vol. II"

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