

GAUHATI UNIVERSITY
INSTITUTE OF DISTANCE AND OPEN LEARNING

Programme Project Report

PPR ID : GU/GUIDOL/PPR/03 (Total no. pages : 08)

Programme: Masters of Arts in Economics and Master of Science in Economics

1. Programme mission and objective:

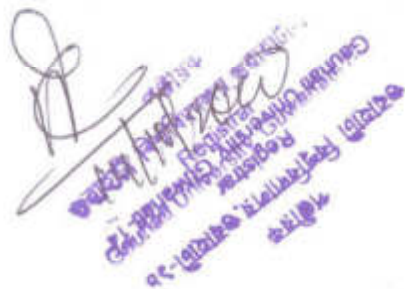
The mission of the Programme to be launched is "to cater to the need of higher education in economics and to widen the periphery of education in economics."

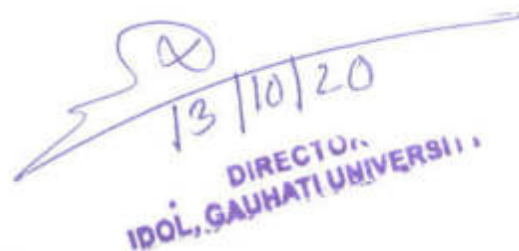
Objectives of the Programme:

- *To promote higher education and research in the field of Economics in particular and Social Science in general,*
- *To enhance and develop their knowledge and understanding of the theoretical and practical foundations of Economics as a subject,*
- *To nurture the finest talents in Economics and capacitate them with high level of professional competence,*
- *To utilize the pool of human resource in the department in relevant fields outside the department through extension and consultancy service,*
- *To exhibit disciplinary knowledge and behavior essential for business leadership,*
- *To think critically to aid decision-making,*
- *To generate competent and well-educated man-power for the teaching profession as well as manning positions of research associates in public/private sector academic institutions,*

2. Relevance of the programme with HEI's mission and goals:

Gauhati University was established in 1948 with a mission to revitalize educational leadership, to set the standard for the creation and dissemination of knowledge as well as to become an effective instrument of change in the society. With this aim in view, the Department of Economics was established in 1948 and has set up, over the years, a close


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association with formal and informal organizations and various successful and enduring entrepreneurs which gives opportunity to the students to acquire access to practical knowledge and ideas.

Keeping in view the motto of “*Quality Higher Education For All*”, Masters of Arts in Economics and Master of Science in Economics to be offered through ODL mode is very much relevant to the HEI’s mission and goals as it aims to provide quality higher education in the field of Economics to those aspiring candidates who are deprived of higher education due to the limited number of intake in the conventional mode of education in the Universities. Moreover, to keep the quality intact the curriculum and syllabus is designed at par with the conventional mode keeping in mind the specific needs and acceptability of the learners in the ODL mode and in keeping with the aims and objectives of the parent department.

3. Nature and target group of learners: Our target group includes-

- Those deprived of admission in the parent Department of regular mode due to limited intake capacity,
- Those employed in various organizations who desire to pursue higher education as a passion or as a means for movement up the promotional ladder,
- Drop outs primarily due to social , financial and economic compulsions as well as demographic factors,
- Job seekers.
- Lifelong learners

Gauhati University also has a provision in the ODL mode for lateral entry for those who had to discontinue the regular programme after successful completion of the first two semesters due to unavoidable reasons. Acceptability of the lateral entry provision is an indicator of parity of the courses in regular and ODL mode. The curriculum is designed to enable learners to fulfill their aims and objectives in a manner they deem fit and proper. The curriculum is designed by a committee comprising of experts from the Department of the HEI, external experts and teachers of Gauhati University Institute of Distance and Open Learning (GUIDOL), keeping in view the needs of the diverse groups of learners.

4. **Appropriateness of the programme to be conducted in the ODL mode for acquiring specific skills and competence-** The programmes to be offered through ODL mode will

have certain learning outcomes. The programmes will help the learners:

- *To create the knowledge of basic and advance concept of economics, socio-economic effect in the society due to the changing nature of world economy,*
- *To enhance and develop their knowledge and understanding of the theoretical and practical foundations of Economics as a subject in particular,*
- *To build knowledge of the different analytical concepts using mathematical, statistical and financial models in the field of Economics in broad,*
- *To commit to action that demonstrates care for others,*

The learners will also be acquainted with various generic skills and competencies for Team Work, Time Management, Commercial Awareness and Critical thinking.

5. **Instructional Design:**

- a) **Curriculum Design:** The curriculum is designed by a committee comprising experts from the parent department of the University and GUIDOL, keeping in view the needs of the diverse groups of learners.
- b) **Detailed Syllabus:** File containing detailed syllabus is attached as Enclosure-I
- c) **Duration of the Program:** Minimum 2 (two) years. However, the learners are required to complete the programme within 4 (four) years from the date of admission.
- d) **Instructional Delivery Mechanism:** The programme will be delivered in 4 (four) semesters having 4(four) course/paper in each semesters and also with the opportunity to choose optional courses offered. The learners will be provided with the printed/online SLM which covers almost all the contents in the syllabus. Counseling class will be held in headquarter and various affiliated study centres. Telephonic Counseling and providing online learning resource will also be a part of instructional delivery mechanism. In the current pandemic situation of COVID-19, more emphasis will be given to the teaching-

learning through online mode. The progress of the learners will be evaluated by Internal Assessment and term end/semester end exam. SLM covering Syllabus is attached as Enclosure-III

e) Faculty:

1. Dr. Ratul Mahanta, Professor, Department of Economics, Gauhati University nominated as Coordinator of the ODL programmes in Economics
2. Assistant Professor in Economics, GUIDOL has since resigned and the post has been advertised and shall be recruited soon.
3. Resource persons drawn from amongst teachers of affiliated colleges and faculties of the Department of HEI.

f) Media: Print Media, ICT enabled content and e-Learning tools

g) Student Support Services: In order to successfully execute the programme, a wide range of support services are provided to the ODL learners. The various support services are listed as below-

- i) **Network of Study Centres:** To assist its learners of the ODL mode the University has established 118 study centres throughout the State of Assam but within the territorial jurisdiction of Gauhati University.
- ii) **State of the art Library** with around 7 thousand collections of materials which includes books, journals, magazines, CD and DVDs.
- iii) **E- Learning Portal:** : www.bodhidroom.net, the first of its kind in the entire North East region of India, which provides the following services to the students:
 - Online enrolment of students
 - Independent Discussion Forum for every course
 - Independent News Forum for every course
 - Online interaction facility with faculty members
 - Online interaction between the students making the scope of collaborative learning
 - Interaction through chatting of all users of all courses who are online.

- Separate Chat Room for individual course
 - **Message My Teacher:** When a student logged on to Bodhidroom, after enrolling himself/herself to a course, he/she will see the names of the virtual class teachers. Student can directly send offline messages to the teachers. When the teacher is logged on, he will receive an alert of incoming messages. Then he can reply to the message.
 - Online Study Material
 - Old Examination Question Papers
- iv) **Dynamic Website www.idolgu.in** : Gauhati University has a dedicated dynamic website for ODL learners where one can get all the information regarding its programmes, up-coming events, examination results etc.
- v) **Computerised admission process with provision of online admissions:** The whole system of admissions and examinations are managed using professional software which gives instant online access to learners through www.idolgu.in.
- vi) **Flexible Walk in Group Counselling (FWGC):** Regular group and individual counselling will be held in the GUIDOL (headquarter) complex as well as in the parent department during all working days. Learners may walk-in to the designated GUIDOL counselling room and meet their teachers to clarify their doubts. In the current pandemic situation of COVID-19, online platform will be provided for the purpose mentioned above .
- vii) **PERSONAL CONTACT PROGRAMME (PCP):** In addition to the Study Materials, useful Personal Contact Programmes will be held at various affiliated study centres, which will enable the students to clarify their confusions and ease their difficulty while going through it. Qualified faculty members of affiliated study centres will help out the attending students by providing necessary tips and guidelines during the interactive sessions. These sessions are also meant to give the students a chance to meet the teachers personally and discuss their problems. In the current pandemic situation of COVID-19, online platform will be provided for the purpose mentioned above .

viii) **Community FM Radio:** Gauhati University has its own Community radio station named as “Radio Luit 90.8 FM” and operates daily from 8AM to 8PM. The Community Radio station shall be extensively used to broadcast radio talks on various courses daily. The broadcast contents are designed as per the requirements by teaching staff of both the ODL Institute as well as the parent department. Experts are outsourced if the situation arises. Radio Luit has recently started a Facebook live page with an objective to reach those learners who fall beyond its radius.

6. Procedure for Admissions, Curriculum transaction and Evaluation-

Admission- The admission process shall start as per the UGC guidelines. In the current pandemic situation of COVID-19, the learner can take admission only through online admission process. The minimum eligibility for MA & M.Sc. programme in Economics is any graduate from any recognized Indian or Foreign university. The proposed fees for admission is Rs 7000.00 (Seven Thousand only) per year. Financial Assistance is provided to the candidates belonging to the SC/ST and OBC categories in the form of scholarship. Few learners belonging to the economically deprived section as well as the physically challenged category are provided free ship on the recommendation of the Vice Chancellor.

Curriculum transaction- Activity Planner: Refer to Enclosure-II

Evaluation- Each course/paper shall carry 80% weightage for the term-end examinations and 20% for internal evaluation in the form of Home Assignments/internal examinations. In order to pass/clear a course/paper in a subject, a candidate must secure minimum 35% marks in each course/paper. All examinations are conducted by the Controller of Examinations as per Examination Rules and Regulations of the Gauhati University.

7. **Library Resource:** The University has a State of the Art Central Library with rich collections of materials which includes books, journals, magazines, CD and DVDs, and is accessible to the ODL learners as well. Moreover, the Institute has its own Library where various books, journals and magazines are available.

Gauhati University being a member of UGC-Infonet Digital Library Consortium (<http://www.inflibnet.ac.in/econ/index.php>) which provides current as well as archival access to more than 5000 core and peer-reviewed journals and nine bibliographic databases from 23 publishers and aggregators in different disciplines. The ODL learners can access the e-resources of UGC-Infonet Digital Library Consortium from the Gauhati University campus.

8. Estimated cost of the Programme: total estimated cost of the programme is approximately Rs. 45 Lakhs which includes preparation and printing of SLMs, remuneration of the Resource persons, establishment cost and overheads. The estimate is evaluated considering the unit expenses of Rs.2.5 Lakhs per paper /1000 students for the entire duration of two years.

9. Quality assurance Mechanism and Expected Programme outcome:

- **Quality assurance Mechanism:** The institute has a *Centre for Internal Quality Assurance (CIQA)* constituted by the statutory body of the HEI. Members of the Cell are drawn from among the Deans of the different Faculty, Heads of the respective departments, Executive Council members, administrative staff and teaching staff of the institute. The Internal Quality Assurance Cell shall review the relevance and standard of the programme from time to time and make necessary changes in the syllabus and contents of the programme. The HEI shall continuously monitor the effectiveness of the program through *CIQA* and other statutory bodies.
- **Expected Programme outcome:** The expected programme outcome is reflected in the Course Benchmark Statement, which is stated as below-

Course Benchmark Statement: Master's degree in the Economics shall be awarded to those learners who demonstrate:

- *The knowledge of basic and advance concept of economics, socio-economic effect in the society due to the changing nature of world economy,*
- *Enhanced and developed knowledge and understanding of the theoretical and practical foundations of Economics as a subject in particular,*

- *Knowledge of the different analytical concepts using mathematical, statistical and financial models in the field of Economics in broad,*
- *Ability for further study and research in Economics and other related domains.*
- *Professional competency in the relevant field*

Detailed Syllabus of MA/MSc in Economics Programme (ODL mode of Gauhati University)

A student shall do a total number of sixteen papers in the four Semesters. Each paper will carry 100 marks - 20 marks for internal evaluation during the semester and 80 marks for external evaluation through end semester examination. All the papers in the First, Second and Third Semesters will be compulsory. The paper XIII and XIV of the Fourth Semester will also be compulsory. The remaining two papers for the Fourth Semesters will be chosen by a student from the optional papers. The names and numbers assigned to the papers are as follows.

First Semester	
I	Microeconomics Theory
II	Macroeconomics Theory - I
III	Mathematical Methods for Economic Analysis-I
IV	Statistical Methods for Economic Analysis
Second Semester	
V	Advanced Microeconomics
VI	Macroeconomic Theory -II
VII	Mathematical Methods for Economic Analysis-II
VIII	Elementary Econometrics
Third Semester	
IX	Development Economics-I
X	International Economics
XI	Issues in Indian Economy
XII	Public Finance-I
Fourth Semester	
XIII	Development Economics-II
XIV	Public Finance-II
Papers XV and XVI are optional. A student has to choose any two of the following courses.	
(a)	Population and Human Resource Development
(b)	Econometric Methods
(c)	Environmental Economics
(d)	Financial System

Detailed Contents of the Papers Syllabus

Paper-I: MICROECONOMICS THEORY

Unit –1: Theory of production and Cost

Production function and related concepts – Isoquants and Substitution between Factors – Elasticity of Substitution – Returns to Scale and Returns to a Factor – Technical Progress and Production Function – Forms of Production Function; Cobb-Douglas, CES and Fixed coefficient Type – Single Decision of a Firm; Choice of Optimal Factor Combination – Expansion Path – Derivation of Cost Function from Production Function – Multi-product Firm: production Efficiency Locus, Production Possibility Frontier and Choice of Optimal Combination of Output of Products.

Unit – 2: Market Structure and Pricing of Products

A Review of Perfect Competition Equilibrium – Monopoly and its Regulation – Monopolistic Competition: Price-Output Equilibrium – Duopoly Models of Cournot, Bertrand and Stackelberg – Kinked Demand Curve Model of Oligopoly – Collusive Oligopoly: Price Leadership Models.

Unit – 3: Theory of Distribution and Pricing of Factors

Pricing of Factors under Perfect Competition – Factor Share and Technical Progress – Backward Bending Supply Curve of Labour – Monopsony

Unit – 4: Basic Financial Accounting

Various terms used in Accounting – Account, Assets, Liabilities, Capital / Equity, Profit, Loss, Revenue income, Capital income, Revenue expenditure, Capital expenditure - Profit and Loss Account - Balance Sheet - Cash Flow Statement

Recommended Readings:

1. Koutsoyianis, A., “Modern Microeconomics”, Macmillan.
2. Baumol, W.J., “Economic Theory and Operations Research”, Prentice Hall of India.
3. Madalla and Miller, “Microeconomics”, McGraw Hill.
4. Pindyck, R. & Rubinfeld, D.L., “ Microeconomics”, Prentice Hall of India.
5. Mukherjee, S., “Business and Managerial Economics”, New Central Book Agency.
6. Salvatore. D., “Micro Economics”, Schaums Series.
7. Juneja and Chawla, “Book Keeping and Accountancy.”
8. B. B. Dam and H.C. Gautam, “Financial Accounting”

Paper – II: MACROECONOMIC THEORY - I

Unit – 1: National Income Accounting

Different forms of National Income Accounting; Social Accounting, Input-Output Accounting, Flow of Fund Accounting and Balance of Payment Accounting

Unit – 2: Theories of Income and Employment Determination

A Review of the Classical and Keynes's Models – Income Determination Model including Money and Interest; IS-LM Analysis– Real Balance Effect and Patinkin's Full Employment Equilibrium; Patinkin's Concept of Underemployment Disequilibrium

Unit 3: Consumption Function

The Consumption Function Puzzle – The Relative Income Hypothesis – The Permanent Income Hypothesis –The Life Cycle Hypothesis

Unit 4: Investment Function

Marginal efficiency of Investment and level of Investment - The Accelerator and Investment behavior - Impact of inflation - Influence of policy measures on Investment.

Recommended Readings:

1. Jha, R., "Macroeconomics: Theory and Policy"
2. Branson, W.H., "Macroeconomics: Theory and Policy"
3. Agarwala, S.K., "National Income Accounting"
4. Schultz, W., "National Income Analysis"
5. Brooman, F. S., "Macroeconomics".
6. Michl, "Macro Economic Theory –A Short Course", Prentice Hall of India
7. Harris, I., "Monetary Theory"
8. Gupta, S. B., "Monetary Economics"
9. Paul & Taylor, "Macro Economics".

Paper – III: MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS-I

Unit –1: Matrix Algebra and its Application

Matrix Algebra-type of matrices-matrix operations-matrix inversion and solution of simultaneous equations-Cramer'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: Differentiation

Basic rules of differentiation-rules of differentiations involving more than one functions of the same variable-Rules of differentiation involving functions of different variables-higher order derivatives-applications relating to derivation of elasticity, revenue function, cost function, tax yield in competitive market, tax yield and income multiplier, derivations of other marginal functions.

Unit-3: Partial and total differentiation

Rules of partial and total differentiations-derivative of implicit function-application to comparative static analysis of market model, national income model and input-output model-determination of partial elastic ties of demand-problems relating to indifference curve, isoquant, production function and Euler's theorem.

Unit-4: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 – 5: Integration

Applications relating to derivation of total functions from marginal functions, estimation of consumer's surplus, producer's surplus,

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."

Paper – IV: STATISTICAL METHODS FOR ECONOMIC ANALYSIS

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.

Unit2: Standard Probability Distribution

Binomial, Poisson and Normal – Moment Generating Function (Definition only) – The Central Limit Theory (without Proof).

Unit – 3: Income Distribution

Pareto’s Law of Income Distribution – Log-normal Distribution – Lorenz Curve and Ginni Coefficient

Unit – 4: Index Number

Relation Between Laspayre’s and Paasche’s Index Numbers – Time Reversal, Factor Reversal, Circular test of Index Number - Fisher’s Index Number – Chain Base Index Number – Base Shifting, Splicing and Deflating – Indices of Industrial Production.

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. Klein, L.R., “An Introduction to Econometrics”
8. Goon Gupta, Das Gupta, “Fundamental of Statistics, Vol. II”

Paper – V: ADVANCED MICROECONOMICS

Unit – 1: Analysis of Consumer’s Choice

A Review of Indifference Curve and Revealed Preference Approach – Violation of the Premises of Indifference curve Approach: Satiation and Lexicographical Ordering.

Unit – 2: Inter-temporal Choice & Choice under Uncertainty

Discounting and Present Value – Inter-temporal Consumption Decision – Inter-temporal Production Decision – Evaluation of Investment Projects – Determination of the Rate of Interest; Attitude Towards Risk – Expected Utility – Measures of Risk Aversion – Certainty Equivalence and the Cost of Risk – Economics of Insurance. – Asymmetric Information and Adverse Selection – Moral Hazard

Unit –3: General Equilibrium

Partial Versus General Equilibrium Approaches – Meaning of General Equilibrium – Walrasian General Equilibrium System: Tatonnement; Existence, Stability and Uniqueness of the Equilibrium – Introductions to the Contributions of Arrow and Debreu – Critique of General Equilibrium Theory – Non-tatonnement Process.

Unit – 4: Welfare Economics

Pareto Optimality – The Fundamental Theorems of Welfare Economics – Market Failure: Externality and Public Good – Welfare Effects of Non-price Allocations and Price Control – Problem of Welfare Maximization: Compensation Principle, Social Welfare Function – Social Choice: Contributions of Arrow and Sen.

Recommended Readings:

1. Layard and Walters, “Microeconomic Theory”,
2. Gravelle and Rees, “Microeconomics”, Longman.
3. Baumol, W.J., “Economic Theory and Operations Research”, Prentice Hall.
4. Ryan and Pearce, “Price Theory,” Macmillan.
5. Madalla and Miller, “Microeconomics,” Tata McGraw Hill.
6. Varian, Hall, “Intermediate Microeconomics.”
7. Henderson and Quandt, “Microeconomic Theory”
8. Sen, A., “On Economic Inequality”
9. Hands, D.W., “Introductory Mathematical Economics”, Oxford.

Paper – VI: MACROECONOMIC THEORY - II

Unit – 1: Demand for Money & Supply of Money

The Demand Money – The Classical Approach - The Keynesian Approach – Friedman’s Contribution – The Approaches of Baumol and Tobin: Inventory Theoretic Approach – The Portfolio Balance Approach.

Unit 2: Theory of Inflation and Economic Stabilization

Classical, Keynesian and Monetarist approaches to inflation; Philips Curve Analysis – Short run and Long run Philips curve– the natural rate of unemployment hypothesis; Adaptive Expectations - Rational Expectations – The New Classical Approach and its Policy Implications – Empirical Evidence.

Unit –3: International Payments

Exchange Rate-Balance of Payments-relationship between the current account and the capital and financial account- Disequilibrium in International Payment, Adjustment Mechanisms under various Exchange Rate Regimes, Devaluation and Exchange Control - The Monetarist Approach to the Balance of Payments.

Unit – 4: Business Cycles

Theories of Kaldor, Samuelson and Hicks - Control of Business Cycles – Relative efficacy of Monetary and Fiscal policies

Recommended Readings:

1. Brooman, F. S., “Macroeconomics”
2. Branson, W.H., “Macroeconomics: Theory and Policy”
3. Harris, I., “Monetary Theory”
4. Gupta, S. B., “Monetary Economics”
5. Patinkin, D., “Money, Interest and Prices”
6. Jha, R., ”Macroeconomics: Theory and Policy”
7. Dornbursch, R. and Fisher, S., “Macroeconomics”
8. Soderstein, B., “International Economics”, Tata McGraw Hill.
9. Paul and Taylor, “Macro Economics”

Paper – VII: MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS-II

Unit – 1: 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 – 2: Calculus for Dynamic Analysis

First order differential equation and its solutions – application to dynamic stability of market and simple growth process (Harrod-Domar), First order difference equation and its solution- application of difference equation – lagged market model (Cobweb) and Harrod's model of growth.

Unit – 3: 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

Unit – 4: Game Theory

Two-person Zero sum game – pure strategies with saddle point, games without saddle point – the rules of dominance – solution of games without saddle point – mixed strategies, Basic ideas and examples of non zero sum games – Nash equilibrium, Prisoner's dilemma and Repeated games.

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. Taro Yamane, "Mathematics for Economists."
6. E.T. Dowling. "Theory and Problems of Mathematical Methods for Business and Economics", McGraw Hill.
7. Mouhammed, "Introduction into Mathematical Economics", Prentice Hall of India
8. R.Hadley, "Linear Algebra."
9. M. Metwally, "Mathematical Treatment of Micro-Economics."

Paper –VIII: ELEMENTS OF ECONOMETRICS

Unit – 1: 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 –2: 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.

Unit – 3: Linear Regression Model and Its Estimation

The Two Variable Model and its OLS Estimation – The General Linear Regression Model – Standard Assumptions – OLS Estimators and their Properties – The Coefficient of Determination – Maximum Likelihood Methods, Estimation and Properties.

Unit – 4: Inference from Linear Regression Estimation

Test of Hypothesis about Regression Coefficients and their Confidence Interval – Prediction with the Linear Regression Model

Unit – 5: Further Topics in Linear Regression Model

Multicollinearity: Effects, Detection and Remedies – Specification Errors and their Consequences – Qualitative Factors and Dummy Variables – Introductions to Heteroscedasticity and Autocorrelation of Disturbances (Ideas only).

Recommended Readings:

1. Johnston, J. “Econometric Methods”, McGraw Hill.
2. Gujarathi, D., “Basic Econometrics”, McGraw Hill.
3. Salvatore, Dominick and Reagle, Darrick, “Statistics and Econometrics”, Tata Mc Graw Hill

Paper – IX: DEVELOPMENT ECONOMICS – I

Unit – 1: Development and Underdevelopment-An Overview

Problems in Defining Economic Development — Per Capita Income as an Index of Development – Alternative Measures of Development Gap: HDI, GDI (including new concepts) and related indices. Poverty: Concepts and Measurement - Income Inequality and Growth – Redistribution with Growth

Unit-2: Theories of Economic Growth

Classical Approach-Adam Smith and Ricardo – The Theory of Marx.- Schumpeter’s Analysis, Harrod-Domor Model: Instability of Equilibrium – Solow’s Neoclassical Model and Steady State Growth – Role of Technical Progress – Convergence – Role of Human Capital – Endogenous Growth – Alternative Growth Model: Joan Robinson and Kaldor

Unit – 3: Theories of Development

The Vicious Circle Theory –The Process of Cumulative Causation: Myrdal – Neo-Colonial Dependence Model. The Stages of Growth: Rostow – Big Push: Rosenstein – Rodan – Balanced Growth: Nurkse – Unbalanced Growth: Hirschman – Critical Minimum Efforts: Leibenstein.

Unit – 4: Development from Dual Economic Structure

Unlimited Supply of Labour and The Dual Economy Models of Lewis and Fei-Renis – The Harris–Todaro Model.

Recommended Readings:

1. Meier, G.M., “Leading Issues in Economic Development”, OUP.
1. Todaro, M.P., “Development Economics”, Pearson.
2. Thirlwal, A. P. “Growth and Development” Palgrave
3. Roy, D., “Development Economics”, OUP.
4. Basu, K., “Analytical Development Economics: A Critique of Contemporary Theory”, OUP.
5. Sen, A. (Ed.), “Growth Economics”, Penguin.
6. UNDP, “Human Development Reports”, OUP.
7. World Bank, “World Development Reports”, OUP.
8. Barro & Salai-Martin, “Economic Growth”, Prentice Hall of India.

Paper – X: INTERNATIONAL ECONOMICS

Unit 1: International Trade Theories

The main propositions of Heckscher-Ohlin Model – Rybczynski Theorem - Heckscher-Ohlin Theorem – Stolper-Samuelson Theorem – Factor Price Equalization Theorem
Alternative Trade Theories: Vent for Surplus – Availability – Increasing Returns to Scale – Monopolistic Competition and International Trade – Imitation Gap and Product Cycle Theories of Trade

Unit 2: Economic Growth and International Trade

Effects of Growth on Trade – Growth, Trade and National Income – Trade and Technical Progress – Terms of Trade Effects – Prebisch-Singer Thesis

Unit 3: Trade and Policy Prescriptions

Types of Tariff – Partial Equilibrium Analysis of Tariff – General Equilibrium Analysis (Small Country Case) – Tariff and World Welfare – Tariff and Income Distribution – Effective Protection – Economic and Non-economic Arguments for Protection
Instruments of Commercial Policy: Export Tax and Subsidy – Quantitative Restrictions – International Cartels – Dumping – Other Non Tariff Barriers
Preferential Trading Club - Free Trade Area – Customs Union – Common Market – Economic Union – Trade Creation and Diversion - Dynamic Effects of Customs

Unit 4: International Monetary Order

Portfolio and Direct Investment – Theory of Direct Investment – Effects on Host and Investing Countries – Direct Investment and Exploitation, International Monetary System and Characteristics of a Good IMS – the Gold Standard – Inter-War Period – The Britton Woods System – Present System of Managed Flexibility Union – Optimum Currency Area – European Monetary System

Recommended Readings:

1. Chacholiades, M., “International Trade: Theory and Policy”, McGraw Hill.
2. Kindleberger, Ridge, “International Economics”, Irwin.
3. Soderston, B., “International Economics”, Tat McGraw Hill
4. Lipsey, R.G., “The Theory of Custom Union”, Windfield.
5. Caves, R.F. and Jones, “World Trade and Payment”, Little Brown Co.
6. Meade, J.F., “Theory of International Economic Policy”, OUP.
7. Roy, P.N., “International Trade: Theory and Policy”
8. Jain, Peyrand and Yadav, “International Financial Management”.
9. M.M. Conden, “Economics of Protection.”

Paper – XI: ISSUES IN INDIAN ECONOMY

Unit – 1: National Income, Unemployment and Poverty

National Income: Trends in Growth and Structure – Unemployment: Recent Trends and Estimates, Employment Policy under Different Plans, New Economic Policy and Employment Prospect – Poverty Analysis

Unit – 2: Industrial Policy and Controls

The Industrial Environment at Independence – Industrial Policy of 1956 – Performance of Industrial Licensing System – Economic Reforms and New Industrial Policy Industry – Indian Industry in the Contemporary context.

Unit – 3: Indian Agriculture

Agriculture Performance: Growth and Productivity – Agriculture Policy: Institutional Reforms, Credit Reforms, Agrarian Reforms – Agricultural Technology, Resources and Investment - Economic Reforms and their impact on Agriculture: Emerging Perspective.

Unit – 4: India's Economic Reforms

Rationale for Economic Reforms – History of Economic Reforms – Current Phases of Reforms – Public Sector Enterprises – Privatisation and Competition – Financial Sector Reforms – Planning in the Context of Liberalisation - Economic Liberalisation and Regional Planning in India.

Unit – 5: India in the Context of Emerging Global Economy

The Nature of Global Economy – Development in the World Economy – India's Economic Reforms in the Global Context – Foreign Trade Policy – Convertibility of Rupee – Impact of WTO on Indian Economy – Foreign Investment and Multinational Corporations.

Recommended Readings:

1. Bardhan, P., "The Political Economy of Development of India", OUP.
2. Brahmananda, P.R. and Panchamukhi, V.R., "The Development Process of Indian Economy", Himalaya.
3. Jalan, Bimal (Ed), "The Indian Economy – Problems and Prospects", Viking.
4. Kapila, Uma (Ed), "India's Economic Reforms", Academic Foundation.
5. Hazari, R.K., "Industrial Planning and Licensing Policy", Final Report.
6. Sen, A. and Dreeze, J., "Economic Development and Social Opportunities", OUP.
7. Wadhwa, C. (Ed), "Some Problems of India's Economic Policy", Tata McGraw Hill.
8. Fouseca, A.J. (Ed), "Challenge of Poverty in India", Vikas.
9. Rao, V.K.R.V., "India's National Income, 1950-1980", Sage.
10. Byres, T.J. (Ed), "The State, Development Planning and Liberalisation in India".

PAPER-XII: PUBLIC FINANCE-I

Unit-1 The State and its role in the Economy

The role of the government in the economy -*allocation, distribution, and stabilization functions*.
Criteria for policy evaluation – *equity, economic efficiency, paternalism and individual freedom and their tradeoff*

Unit-2: The Provision of Public Goods

The nature of Public goods, Public Goods and market failure, The efficient provision of public goods

Basic concepts- *The Theory of Clubs, Tiebout Hypothesis, Voluntary Bargaining in Small Groups (Coase's analysis)*

Public goods - *externalities, corrective policies, and viability of government intervention*

Public Choice: *Majority Rule and the Median Voter, Logrolling,*

Unit-3: Public Expenditure

Theories of Public Expenditure- *Lindahl's Model of Voluntary Exchange, Samuelson's Benefit Theory of Public Expenditure, Musgrave's Optimum Budget Theory*

Public Expenditures on, non-marketed goods, fixed-quantity subsidy for marketed goods, and excise subsidy - their impact on allocation and distribution

Evaluation of public expenditure- *cost-benefit analysis*.

Unit-4: Public Revenue

Concepts- *Tax Ratio, Buoyancy, and Elasticity of taxation, Rate schedules of taxation, Tax Credit, Exemption and Deduction, Excess burden of tax, and Taxable Capacity*.

Principles of Taxation: The Benefit Principle. The Ability to Pay Principle- *Concepts of equal sacrifice, ability to pay and tax rate schedules, the Maximum- Welfare Principle of Budget Determination*.

The Neo-classical Theory of Tax Incidence and Shifting, price-output effect of shifting under different cost conditions and market situations. Musgrave's Budget Incidence Theory.

Capitalization of tax

Value Added Tax.

Recommended Readings:

1. Cullis, John & Jones, Philip, "Public Finance and Public Choice", McGraw Hill.
2. Browning, E.K. & Browning, J.M., "Public Finance and the Price System", Pearson.
3. Musgrave & Musgrave., "Public Finance in Theory and Practice".
4. Current Report of the Finance Commission, India.
5. Buchanan, J.M., "The Public Finance", Richard D. Irwin.
6. Pigou, T.F. and L.G. Sgontz., "An Introduction to Public Finance", Houghton.

Paper – XIII: DEVELOPMENT ECONOMICS-II

Unit –1: Components in the Development Process

Agriculture's Contribution to Development – Agriculture-Industry Interactions – The Role of Land Reforms and Price Policy in Agricultural Transformation- Industrialization: Export Promotion versus Import Substitution Strategies – The Choice of Techniques.

Unit – 2: Development Planning

The Concept and Types of Planning – Rational for Planning in a Developing Economy – The Planning Process: Projection of Macro Variables, Input-Output Models and Sectoral Projections, Project Evaluation and Social Cost-Benefit Analysis – Plan Failures, Market Versus Planning – Planning in a Market Oriented Economy – Plan Models in India (The Models of 2nd Plan, 5th Plan and the ongoing Plan)

Unit – 3: Financing of Development

Domestic Sources: Private Savings, Taxation – Financing by Money Creation and its Effects – The Dual Gap Analysis: Saving-Investment Gap and the Foreign Exchange Gap – Foreign Borrowing and the Debt Serving Problem – Private Foreign Investment.

Unit – 4: Environment and Development

Environment and Economy Interdependence - Poverty and Environmental Degradation – The Concept of Sustainable Development - Micro Planning for Environmental and Eco-Preservation – Watersheds and Joint Forest Management - Role of State in Environmental Preservation

Recommended Readings:

2. Meier, G.M., “Leading Issues in Economic Development”, OUP.
3. Todaro, M.P., “Development Economics”, Pearson.
4. Thirlwal, A. P. “ Growth and Development” Palgrave
5. Roy, D., “Development Economics”, OUP.
6. Basu, K., “The Less Developed Economy:”, OUP.
7. World Bank, “World Development Reports”, OUP.

PAPER-XIV: PUBLIC FINANCE-II

Unit-1: Public Debt

Public Debt – sources, burden and effects. Optimality in Public Debt Management

Pay-As-You-Use and Pay-As-You-Go Finance, Musgrave's Intergeneration Equity Theory

Unit-2: Public Budget

The Modern Theory of Public Budgeting, Structure of a public budget, Incremental and Zero-base Budget, Outcome Budget

Concepts: Budget deficit, revenue deficit, fiscal deficit and primary deficit.

The current Union and the Assam state budget.

Unit-3: Fiscal Policy

Fiscal Policy and its role in the economy, Compensatory Fiscal Policy, Functional Finance and Pump Priming

Fiscal Policy under conditions of inflation, and in the presence of unemployment

The Balanced Budget Multiplier, Built-in- Flexibility in the compensatory mechanism

Incidence of deficit financing: Impact of deficit finance on the capital market: *The Crowding Out Effect*. The welfare cost of deficit finance. Rationale and methods of reducing deficits

Unit-4 Fiscal Federalism

Principles of division of financial resources, Instruments of inter-government resource transfer.

Horizontal and Vertical fiscal balance, Problems of Centre-State Financial Relations in India

Recommended Readings:

1. Cullis, John & Jones, Philip, "Public Finance and Public Choice", McGraw Hill.
2. Browning, E.K. & Browning, J.M., "Public Finance and the Price System", Pearson.
3. Musgrave & Musgrave., "Public Finance in Theory and Practice".
4. Current Report of the Finance Commission, India.
5. Buchanan, J.M., "The Public Finance", Richard D. Irwin.
6. Pigou, T.F. and L.G. Sgontz., "An Introduction to Public Finance", Houghton.

Optional Papers

(a) POPULATION AND HUMAN RESOURCE DEVELOPMENT

Unit – 1: Basic Theories and Concepts

The Malthusian Theory of Population - Theory of Optimum Population - Theory of Demographic Transition - Population as Limits to Growth and as 'Ultimate Source' - Sources of Population Data - Population Pyramids, Population Change: Concepts and Measurement - Characteristics of Indian Population as Revealed by the Latest Census.

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: Economics of Education

Education and Human Resource Development – Education and Economic Development – Cost – Benefit Analysis of Education – Measurement of Costs – Measurement of Benefits – The Rate of Return of Investment in Education – Social Rate of Return to Investment in Education - Public and Private - Financing of Education: Criteria for Adequacy of Education Finance, Traditional as well as Modern Concept of Adequacy – Financing of Education and Equity – Financing for Higher Education in India and its Problems.

Unit – 4: Manpower Planning

Significance and Problems, Measurement – Manpower Demand and Supply – Methodological Issues in Estimating Manpower Demand and Supply – Input-Output Method in Forecasting Manpower Requirement – Educational Planning and its Economic Aspects, Meaning and Concept of Brain Drain – Brain Drain and Under-developed Countries – Cost of Brain Drain.

Recommended Readings:

1. Bhende, A., and R. Kanitkar, "Principles of Population Studies".
2. Gupta and Kapoor, "Fundamentals of Applied Statistics."
3. Goon, Gupta, DasGupta, "Fundamentals of Statistics", Vol. II.
4. Ramkumar, R, "Technical Demography".
5. Nick hanley and Others, "Environmenatl Economics", MacMillan.
6. G. Psacharopolous (ed), "Economics of Education" Perdgaman Press.
7. Ian Beardwell and Len Holden (ed), "Human Resource Management – Contemporary Perspective", MacMillan.
8. M.P.Todaro, "Economic Development in the Third World", Oriented Longman.
9. NCAER, "India: Human Development Report".
10. UNDP Human Development Reports, Oxford University Press.

(b) ECONOMETRIC METHODS

Unit – 1: Generalised Least Squares

Aitken's Theorem of GLS – Feasible GLS and its Properties – Heteroscedasticity: Test and Solutions – Autocorrelation: Test and Solutions.

Unit – 2: Non-Linear Estimation

Non-Linear Least Squares and Iteration process – Models with Binary Dependents Variables – Logit and Probit Models

Unit – 3: Distributed Lag Models

Concept – Koyck Model – Partial Adjustment and Adaptive Expectation Models – Estimation of Models with a Lagged Dependent Variable – Test of Autocorrelation in Auto-Regressive Models

Unit – 4: Analysis of Time Series

Components of Time Series – Fitting of Trend – Variate Difference Method – The idea of a stochastic Time Series - Stationary and Non-stationary Time Series – Autocorrelation Function and Correlelogram - the Problem of Regression Analysis with Non-stationary Time Series.

Unit – 5: Introduction to Simultaneous Equation Model

Structural and Reduced Forms – Simultaneity Bias – Informal Introduction to Identification Problem, Indirect Least Squares and Two Stage least Squares

Recommended Readings:

1. Johnston, J., "Econometric Methods", McGraw Hill.
2. Gujarathi. D., "Basic Econometrics", McGraw Hill.
3. Pindyck and Rubinfeld, "Econometric Models and Econometric Forecasts", McGraw Hill.
4. Greene, William, "Econometric Analysis", Macmillan.
5. Johnston and Dinardo, "Econometric Methods", McGraw Hill.

(c) ENVIRONMENTAL ECONOMICS

Unit –1: The Economy and the Environment

Interlinkings between the Economy and the Environment – The First two laws of Thermodynamics – Environment Degradation as Market Failure- Externality, Pigouvian Tax, Property Rights and Transaction Costs – Environmental Public Goods

Unit – 2: Economics of Natural Resources

Economic Issues relating to use of Non-renewable Resources, Optimal Depletion – Issues relating to Renewable resources, Sustainable exploitation - Common Property Resources – Open Access – The Tragedy of Commons

Unit –3: Valuation of Environmental Damages and Benefits

Use and Nonuse Values - Valuation Methods – Stated Preference Methods: Contingent Valuation – Revealed Preference Methods: Hedonic Pricing and Travel Cost Method – Environmental Impact Assessment.

Unit –4: Environment and Development

Environment Development Trade off – Poverty and Environment – Concept and Indicators of Sustainable Development: Environmental Accounting - Policies for Sustainable Development.

Unit –5: Political Economy of Global Environmental Issues

Climate Change, Loss of Biodiversity, Ozone Depletion, International Conventions and Protocols –Trade and Environment – Pollution Havens.

Recommended Readings:

1. Kolstad, Charles D., “Environmental Economics”, Oxford University Press.
2. Hanley, Shogren and White, “Environmental Economics”, Macmillan.
3. Shanker, U, “Environmental Economics”, Oxford University Press.
4. Bhattacharjya, R., Environmental Economics”, Oxford University Press.

(d) FINANCIAL SYSTEM

Unit-1: The Financial System

Components of the financial system: Institutions, Markets, Instruments, and Services.-Functions of the Financial System. - Relationship between the Financial System and Economic Growth.

Unit-2: Financial Markets- Money Market

Structure and Functions. - Instruments in the money market -Treasury Bill, Call Money Market, Commercial Papers, Certificate of Deposits and Commercial Bills. Money Market Intermediaries: The Discount and Finance House of India and Money Market Mutual Funds. Liquidity Management Instruments in the Money Market -.Money Market Derivatives.

Unit- 3: Financial Markets- Capital Market

Structure and functions of the capital market - Primary Equity Market: Instruments of resource mobilization- Public Issues, Right Issues, and Private Placement. Resource mobilization from International Capital Market.- Secondary Equity Market: Functions of the secondary market. The Stock market and its operation. Stock Market Index- The BSE Sensex and the NSE Nifty - Derivative Equity Market: Nature of Derivatives and their benefits. Types of Financial Derivatives. - Debt Market: Participants in the Debt Market- The Private Corporate Debt Market, The PSU Bond Market and the Government Securities Market, MF Role and types of MF – Concepts of NPV.

Unit-4: Valuation of Financial Assets

The time value of money and asset pricing - The valuation of debt instruments - The equilibrium price and quantity of bonds: loanable fund approach, Demand and Supply approach. - Valuing stock and other assets- income stocks and growth stocks -Equilibrium price and value of stock transactions.

Unit-5: Financial Sector Reforms

Evolution of Banking System in India - Banking Sector Reforms - Reforms in the Capital Market.

Recommended Readings:

1. Baye, R. Michael & Jonson, W. Bennis, “Money, Banking and Financial Market-An Economic Approach”, AITBS Publishers.
2. Pathak, Barati, B., “Indian Financial System”, Pearson Publication.
3. Chandler, V.L., “The Economics of Money and Banking”
4. Saxena, R.M., “Development Banking in India”
5. Gupta, S. B., “Monetary Economics: Institutions, Theory and policy”
6. Avadnani, V.A., “Studies in Indian Financial System”
7. Sharma, S.K., “The Institutional Structure and Capital Market in India”
8. Dagli, V., “Financial Institutions in India”
9. Gupta, U.L., “Working of Stock Exchanges in India”
10. Raj, J., “Money Market, Mutual Funds: Scope and Implications”
11. RBI Reports, Tandon, Chakraborty, Dantwala Reports
12. Reserve Bank of India, “Functions and Working”.

Enclosure: II

ACTIVITY PLANNER
Gauhati University Institute of Distance and Open Learning
Guwahati- 781014, Assam

ADMISSION			
SEMESTER (TRADITIONAL PROGRAMMES)			
A	1	Fresh	July-September
	2	Continuation	July-September
SEMESTER (IT PROGRAMMES)			
B	1	Fresh	July-September
	2	Continuation	Odd Semester (July-September) Even Semester (January-February)
ADMISSION TEST FOR M.Sc. IT PROGRAMME			
C		August	
ANNUAL PROGRAMMES			
D	1	Fresh	July-September
	2	Continuation	July- September
DISTRIBUTION OF SLM			
SEMESTER/ANNUAL (TRADITIONAL PROGRAMMES)			
A	1	Fresh	July-September
	2	Continuation	July-September
SEMESTER (IT PROGRAMMES)			
B	1	Odd Semester	July-September
	2	Even Semester	January-February
CONTACT CLASSES			
SEMESTER (TRADITIONAL PROGRAMMES)			
A	1	Odd Semester	September-December
	2	Even Semester	March-June
SEMESTER (IT PROGRAMMES)			
B	1	Odd Semester	September-December
	2	Even Semester	March-June
ANNUAL PROGRAMMES			
C	1	Previous/Final	December-May
EXAMINATION : TERM END			
SEMESTER (TRADITIONAL/IT PROGRAMMES)			
A	1	Odd Semester	February-March (All Sundays)
	2	Even Semester	August-September (All Sundays)
ANNUAL PROGRAMMES			
B	1	Previous	August-September (All Sundays)
	2	Final	February-March (All Sundays)
<i>Schedule may change as per the directive of the Controller of</i>			

		<i>Examinations, GU/Govt. of Assam</i>	
EXAMINATION: Sessional (OMR based Internal Examination)			
SEMESTER (TRADITIONAL/IT PROGRAMMES)			
A	1	Odd Semester	November-December
	2	Even Semester	June-July
ANNUAL PROGRAMMES			
B	1	Previous	June-July
	2	Final	November-December
DECLARATION OF RESULTS (Term End)			
SEMESTER (TRADITIONAL/IT PROGRAMMES)			
A	1	Odd Semester	May-June
	2	Even Semester	November-December
ANNUAL PROGRAMMES			
B	1	Previous	November-December
	2	Final	May-June

ENCLOSURE-III
SLM covering syllabus

SL. NO	PAPER NO	PAPER NAME
FIRST SEMESTER		
1	I	Microeconomics Theory
2	II	Macroeconomics Theory – I
3	III	Mathematical Methods for Economic Analysis-I
4	IV	Statistical Methods for Economic Analysis
Second Semester		
5	V	Advanced Microeconomics
6	VI	Macroeconomic Theory –II
7	VII	Mathematical Methods for Economic Analysis-II
8	VIII	Elementary Econometrics
Third Semester		
9	IX	Development Economics-I
10	X	International Economics
11	XI	Issues in Indian Economy
12	XII	Public Finance-I
Fourth Semester		
13	XIII	Development Economics-II
14	XIV	Public Finance-II
15	(a)	Population and Human Resource Development
16	(b)	Econometric Methods
17	(c)	Environmental Economics
18	(d)	Financial System