PROGRAMME – MASTER OF ARTS (M.A.) IN ECONOMICS: SEMESTER MODE
PREPARED BY CIQA, DODL, DIBRUGARH UNIVERSITY FOR THE ACADEMIC SESSION 2020-21 ONWARDS

Introduction

Dibrugarh University (DU) started offering Post Graduate Programme in Economics through distance mode since 2001. Over the years, DU has lived to the learners expectations of providing the opportunity for higher studies in Economics to the changing needs and contexts of learners while responding to the imperatives of the workplaces of the future.

(a) Mission and Objectives

Mission

To provide quality higher education in Economics to the door step through barrier less, flexible and open learning mode with emphasis on relevance and inclusion.

Objectives

The programme is designed to achieve the following objectives

- To offer an opportunity to learners for higher studies in Economics.
- To gain understanding of core economic principles and how they apply to a wide range of real world issues.
- To provide a general understanding of the functioning of the economic system, and the role of institutions, groups and regions within that system.
- To expose learners to alternative paradigms of economic theory and their application to contemporary national and international problems.
- To acquaint learners in some emerging areas in Economics such as finance, environment, sustainable agriculture that are expected to be extremely useful in the present scenario of economic liberalization and globalization.
- To master the theoretical and applied tools necessary to critique and create economic research.
- To help students in acquiring analytical and empirical skills necessary to succeed in securing professional employment or admission to appropriate post-graduate programs.

(b) Relevance of the Programme with HEI's Mission and Goals:-

Since its inception in 2001, MA programme in economics under distance mode is a very important teaching programme, in achieving goals of the University. With the inherent flexibility and openness, the programme is offering courses to the learner's expectations and reaching the unreached. The course structure incorporates a balance of theoretical analysis & quantitative reasoning. The programme attracts a talented pool of students from varied undergraduate backgrounds, including not only economics but also mathematics, physics, and engineering etc. Apart from that, this programme is designed to meet the various academic and employment needs of the people in the region, especially of the disadvantaged sections of the society and people from rural areas. Learners get exposure to a wide range of courses and also gain experience in doing field work, analysing data, handling statistical software packages, making presentations and writing reports and papers.

(c) Nature of prospective target group of the learners

The target groups identified for this Programmes are (a) graduates intending to improve their chances of employments on successful completion of this programme, (b) in service personnel looking forward to improve their skills and knowledge to enable to go up in the ladder in their own organization or elsewhere and (c) individuals who are unable to pursue higher education in Economics due to different reasons.

(d) Appropriateness of the Programme to be conducted in Open and Distance Learning to acquire specific skills and competence:

The study of economics helps to formulate an understanding of the effects of financial actions and reactions by individuals and institutions. It is the subject that helps us to make rational decisions in a situation of scarce resources with alternative uses. Choice is the heart of all decision making. Individuals, businesses and governments are all faced with making choices in situations where resources are scarce. This is where knowledge of Economics is vital. The MA Programme in Economics programme aims to provide a

thorough grounding in the principles of Economics while developing critical skills for a wide range of real world professional situations. Due to its combination of verbal reasoning and mathematical and quantitative analysis this degree will prepare a learner for a career as an economist in industry, finance, government or international organizations. It will also prepare for a range of other careers where these skills are valued.

(e) *__Instructional Design__*

__Student Support Services__

The MA Programme in Economics is offered through Distance mode with multi-channel, multiple media teaching / learning packages for instruction and self learning. The different components used for teaching/learning include self –instructional print and audio-video materials, radio broadcasts, face-to –face counseling(Weekend counseling in every Saturdays and Sundays),video conferencing, multi-media CDs, internet based learning and the use mobile phones for instant messaging. In this programme, while the traditional distance education delivery through print and study centre support is being strengthened, the Directorate is also strengthening the development of interactive multimedia content and learner support through video conferencing and web-based facilities by utilizing the Internet.

__Curriculum Design__

The MA Programme in Economics under distance mode at the Dibrugarh University is a two year academic programme. The core elements of the programme includes advanced level exposure to microeconomics, macroeconomics, mathematical economics, econometrics and the learners also receive an in-depth knowledge of the concepts, theories, techniques, policies and other applications in environmental, agricultural, demographic and natural resource economics .The core strength of the programme lies in its innovative curriculum, which integrates the strengths of economic theory with the rigour of economic analysis. As a programme with specialization, it equips its learners to pursue a career in the different workplaces, continue their research in the form of higher academic degrees in India and overseas.MA economics is a full-time programme and is divided into four semesters .The programme of study consists of 14 core courses which are compulsory and 2 courses are based on specialization option (Elective Courses) of two broad area.

Course Structure of M.A. in Economics Programme

The Post Graduate Programme in Economics shall be of four semesters covering two academic years. A learner has to register in courses of minimum 64 credits in two academic sessions.

First Semester   : 16 Credit(Compulsory)
Second Semester: 16 Credit (Compulsory)
Third Semester : 12 Credit(Compulsory) + 04 Credit (Elective) (Group A or Group B)
Fourth Semester: 12 Credit (Compulsory) + 04 Credit (Elective) (Group A or Group B)

Semester	Course Code	Title of the Course	Credits	Study Input(Hours)	Size of SLM(in terms of units, to be divided into blocks)	No of Counseling sessions(10%of total study hours)	No. of Assignments
1St	ECO10100	Microeconomic Theory-I	4	120	14	12 hours	2
	ECO10200	Macroeconomic Theory	4	120	14	12 hours	2
	ECO10300	Public Finance	4	120	14	12 hours	2
	ECO10400	Issues on Indian Economics	4	120	14	12 hours	2
2nd	ECO20100	Microeconomic Theory-II	4	120	14	12 hours	2
	ECO20200	Monetary Theory	4	120	14	12 hours	2
	ECO 20300	Statistics for Economic Analysis	4	120	14	12 hours	2
	ECO 20400	Regional Economics	4	120	14	12 hours	2
3rd	ECO 30100	International Economics	4	120	14	12 hours	2
	ECO30200	Mathematics for Economic Analysis	4	120	14	12 hours	2
	ECO30300	Development Economics-I	4	120	14	12 hours	2
4th	ECO40100	Development Economics –II	4	120	14	12 hours	2
	ECO 40200	Environmental Economics	4	120	14	12 hours	2
	ECO 40300	Econometrics	4	120	14	12 hours	2
ELECTIVE COURSES							
3rd	ECO30410	Economics of Agriculture(Group-A)	4	120	15	12 hours	2
	ECO30420	Demographic Analysis(Group-B)	4	120	14	12 hours	2
4th	ECO40410	Rural Development(Group-A)	4	120	10	12 hours	2
	ECO40420	Population Studies (Group-B)	4	120	16	12 hours	2

Details of MA in Economics Syllabus

FIRST SEMESTER

FIRST SEMESTER
Course Code: ECO10100
Title of the Course: Microeconomic Theory-I
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1 : BASIC CONCEPTS OF MICROECONOMICS AND THEORY OF DEMAND

Micro static, dynamic and comparative static analysis; Economic models; Concepts and importance of firm and industry; Criteria for the classification of firms into industries; Criteria for the classification of marks; Partial and general equilibrium; Elasticities of demand-price, cross and income; Elasticity of supply.

BLOCK 2: THEORY OF CONSUMER BEHAVIOUR

Cardinal utility theory; Indifference Curve Analysis (income, substitution and price effects, Slutsky theorem, compensated demand curve) and their applications; Revealed preference theory; Consumer surplus; Consumer choice involving risk; Recent developments in demand analysis-Pragmatic approach.

BLOCK 3: THEORY OF PRODUCTION AND COSTS

Production function and its graphical representation, Law of variable proportions and returns to scale; Technological progress and production function; Equilibrium of the firm; Choice of optimal combination of factors of production; Choice of optimal expansion path; Graphical derivation of cost curves from production function; The production possibility curve of a firm; Equilibrium of a Multi-product- firm.
Traditional and modern theories of costs - The envelop curve, The L-shaped scale curve; The analysis of economies of scale-real and pecuniary economies of scale; The relevance of the shape of cost curves in decision making.

BLOCK 4: THEORY OF PRODUCT PRICING
Theory of Firm:
Traditional and modern theories of Firm - basic differences, concept of break-even point and its practical utilities, Managerial theory of firm-Baumol's sales revenue maximization model.
Perfect Competition:
Short run and long run equilibrium of the firm and industry; Supply curve.
Monopoly: Short run and long run equilibrium, Price discrimination and its effects; The Multi-plant firm; Bilateral monopoly.
Monopolistic Competition: Equilibrium of the firm-Product differentiation and the demand curve; The concept of industry and group.
Oligopoly: Non-collusive oligopoly - Cournot's duopoly model, Chamberlin's oligopoly model, Kinked-demand model, Collusive oligopoly-Joint profit maximization, Market sharing cartels; Price leadership, Theory of limit pricing; Bain, Sylos-Labini, Modigliani and Bhagawati.

Reading List:
1. Koutsoyiannis, A Modern Microeconomics, ELBS with Macmillan Publication, London.
2. Henderson & Quandt : Microeconomic Theory, McGraw Hill, New York.
3. Samuelson, P.A. : Economics, McGraw Hill, New York.
4. Stonier, W & Hague, D.C. : A Text Book of Economic Theory, Longman, London.
5. Rubinfield & Pindyck: Micro Economics McGraw Hill, New York.
6. David N. Hyman : Economics 4th Ed. Irwin, Chicago.
7. Shastri, Rahul A. : Microeconomic Theory, Universities Press (India Ltd.) Hyderabad.
8. Chopra, P.N.: Advanced Economic Theory, Kalyani Publishers,   Ludhiana
9.   Ahuja, H.L. : Advanced Economic Theory-Micro Economic   Analysis, S. Chand & Co., New Delhi.

FIRST SEMESTER
Course Code: ECO10200
Title of the Course: <u>Macroeconomic Theory</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block-l: National Income
> Gross National Product, Net National Product. National Income, Personal Income, Disposable Personal Income, Real and nominal GNP .Circular flow of national income in two. three and four sector economy;Gross capital formation, Net capital formation. Capital-output ratio, National income and economic welfare.

Block-2: Classical and Keynesian Approaches to Macroeconomics
> Classical theory of employment and output determination, Keynesian theory of employment and output; The consumption function, The investment function; Aggregate demand and aggregate supply approach; Saving-investment approach.
> The concept of Investment multiplier and its diagrammatic representation; The Balanced Budget Multiplier.

Block-3: Product and Money Market Equilibrium
> Product market and the IS curve. The money market and the LM curve; The General equilibrium in the IS-LM framework. Shifts in the IS and LM curves; Relative effectiveness of monetary policy and fiscal policy.

Block- 4: Income-Consumption relationship:
> Absolute Income Hypothesis. Relative Income Hypothesis-Demonstration effect and Ratchet effect. Permanent Income Hypothesis and its implications; Life Cycle Hypothesis and its implications.

Block-5: Macroeconomic policies
> Monetary and Fiscal policies and their relative effectiveness, The Philip's curve, Friedman-Phelps approach, Rational Expectations approach. Stabilisation policies, Incomes policy; Problems of Stabilization policies; Supply side economics.

Reading List :
1.   N. Gregory Mankiw : Macroeconomics, (Ind Edn. CBS   Publishers & Distributors,   485,   lain Bhawan, Bhola Nath Nagar, Shahdara, Delhi - 110032).
2.   Michael Patkin : Macroeconomics, Addison -Wesley, NY, 1990.
3.   Lawrence Harris: Monetary Theory (3rd Edn.), McGraw Hills, NE, 1995.

4.   T.J. Sargent : Macroeconomics & Mathematical Economics (6th Edn), Academic Press, N.T., 1994.
5.   Todaro, M.P. & Smith: Development Economics, Pearson Education.
6.   F.S. Mishkin : Money, Banking and Financial Markets (2nd Edn.), Scott, forestnan & Co., 1989.
7.   David Romer : Advanced Macroeconomics, McGraw Hills, NY, 1996.

FIRST SEMESTER
Course Code: ECO10300
Title of the Course: <u>Public Finance</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1: PUBLIC FINANCE-ROLE, APPROACH AND SOME BASIC CONCEPTS
Role of Public Finance in developing economies and its distinction from developed economies, Government as an agent for economic planning and development; Government in different economic set up; Functional and normative approach to Public Finance; Optimum Budget Model.Characteristics of public goods-market failure-imperfection, decreasing cost, Externalities; Public goods Vs. private goods; Merit goods, mixed goods; Market failure- imperfection, decreasing cost, Externalities.
BLOCK 2 : TAXATION
The Benefits-Received approach and the Ability to pay approach, Critical study of traditional and modem theories of taxation; Neo-Classical and Modem concept of incidence.   Meaning, Importance - and Limitations.Salient features and defects, Recent tax reform measures, Role of taxation in economic development.
BLOCK 3 : PUBLIC EXPENDITURE AND PUBLIC DEBT
Structure and growth of public expenditure; Wagner's theory of public expenditure and other modern theories-Erik Lindahl, H.R. Bowen and P.A. Samuelson, Investment criteria, Cost-benefit analysis; Shadow pricing and External Cost and Benefit; Role of public expenditure in economic development.Role and burden of public debt, shifting of debt burden; Principles of debt management and repayment of public debt.
BLOCK 4: FISCAL POLICY AND FEDERAL FINANCE
Role and objectives in both developing and developed countries, Distinction between fiscal and revenue deficits, Balanced budget multiplier and its implications. Fiscal federalism; principles and policies of federal government; Methods of resource transfer in a federation.

BLOCK 5 : PUBLIC BUDGET, PUBLIC UTILITIES AND PUBLIC ENTERPRISES
Types of public budget, Economic and functional classification of budget; Zero-based budgeting, Programme and Performance budgeting; Budget as an instrument of economic policy.Rights, duties and characteristics of public utilities; pricing of public utilities and its distinction from the pricing of public enterprises; Distinction between public utilities and public enterprises.
Reading List:
1. Musgrave and Musgrave : Theory & Practice of Public Finance, McGraw Hill Kogakusha Ltd., Tokyo.
2. Prest, A.R. Public Finance in Theory & Practice, Vikash Publications Ltd., New Delhi.
3. Tripathy, R.N. Public Finance in Underdeveloped Countries, The World Press Pvt. Ltd., Calcutta.
4. Musgrave : Theory of Public Finance, McGraw Hill Book Company INC New York.
5. Taylor : Economics of Public Finance, Oxford & IBH Publishing Company, Calcutta.
6.   Choudhury, R.K. : Public Finance and Fiscal Policy, Kalyani Publishers, Ludhiana.

FIRST SEMESTER
Course Code: ECO10400
Title of the Course: <u>Issues on Indian Economics</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1: STRUCTURE OF THE INDIAN ECONOMY
    Basic characteristics of Indian economy, Causes of economic backwardness, Trends in national income-growth and structure.Mineral, forest, water and land; Human resource and its potentials, Population - size, composition and distribution, population policy, population growth and economic development; Occupational pattern, Unemployment problem; Poverty and poverty alleviation programmes.
BLOCK 2 : AGRICULTURE AND RURAL DEVELOPMENT
    Role of agriculture in Indian economy, Nature of Indian agriculture, Cropping pattern in India; Food security in India- policies for sustainable agriculture, Public Distribution System and its impact; National Agricultural Policy, Conditions and problems of agricultural labourers. Irrigation, agricultural inputs and mechanization of agriculture; Agricultural growth during the planning era; Land reforms; Agricultural marketing. Institutional credit flow to the rural sector - SCBs, RRBs, NABARD; Micro finance-SHG movement; Agricultural taxation in India, WTO and Indian agriculture.
BLOCK 3: INDUSTRIAL DEVELOPMENT
    The performance and pattern of industrialization under Five-year Plans, Problems of Industrial development; Small- scale and cottage industry: Industrial sickness-extent, causes and remedies, Industrial policy of India.
    Saving, capital formation in India, Causes of low rate of capital formation.

BLOCK 4: TERTIARY SECTOR IN INDIA
    Transport and communication; Education and Health, Information technology; Tourism sector. Foreign trade of India-value, composition and direction, balance of payments problem, Trade policy of India, foreign investment-direct and portfolio, Role of multinational firms, Foreign exchange, Foreign aid, External debt of India.RBI, Commercial banks, RRBs, Non-banking financial intermediaries; Money and capital markets in India, Stock market; Indian public finance-Fiscal federalism, Problems of fiscal policy, Fiscal sector reforms in India, budget.
BLOCK 5: ECONOMIC PLANNING
    Features of economic planning in India, Main objectives, Achievements and failures of Plans, Strategy of Indian Planning, Resource mobilization and investment in Five- year Plans, Salient features of current Five-year Plan: Regional disparities-Indicators, causes, extent and policy measures, Regional Planning, Role of Panchayat, NGOs, SHGs.
    Liberalization, Privatization and Globalization, Disinvestments in public sector undertakings-rationale, feature and assessment, WTO regime and India.

Reading List:
1. Misra, S.K. & Puri, V.K. : 'Indian Economy' Himalaya Publishing House, Bombay, 1997.
2. Dewett, K.K., Verma & Sharma: 'Indian Economics', S. Chand & Co., New Delhi, 1999.
3. Daff, R. & Sundaram, K.P.M. : 'Indian Economics', S. Chand & Company Ltd., Ramnagar, New Delhi.
    4.   Dhar, P.K. : 'Indian Economy' 9th edition, Kalyani Publishers, Ludhiana, 2001

SECOND SEMESTER

SECOND SEMESTER
Course Code: ECO20100
Title of the Course: Microeconomic Theory-II
Marks: 100 (Term-end Examination:80 +Internal Assessment:20)

BLOCK 1: THEORY OF DISTRIBUTION

Marginal productivity theory; Euler's theorem and adding up controversy; Rent, Quasi rent and transfer earnings, Ricardian theory of rent; Classical and modern wage theories, Robinsons's theory of exploitation; Classical, Keynesian and modern theories of interest; Risk and uncertainty bearing theories of profit, Schumpeter's theory of profit.

BLOCK 2: WELFARE ECONOMICS

New welfare Economics and its Distinction with Pigovian welfare economics; Pareto's welfare criterion and conditions of Paretian optimality; Merits and demerits of Paretian social optimum concept.Compensation principle of Kaldor-Hicks; Scitovsky's paradox, Scitovsky's double criterion; Value judgment; Bergson-Samuelson social welfare function; Arrow's theory of social choice and impossibility theorem, Amartya Sen's concept of poverty and welfare.

BLOCK 3: THE ECONOMICS OF INFORMATION:

Markets with Asymmetric Information; Quality Uncertainty and the Market for Lemons. Adverse Selection; Social Insurance; Signaling and Screening; Moral Hazard ; The Principal-Agent Problem. Asymmetric Information in Labour Markets: Efficiency-wage Theory.

BLOCK 4: LINEAR PROGRAMMING

Definition, Objectives and applications, Statement of the problem; Concepts of objective function, Constraints, Iso- cost and Iso-profit lines, Feasible region, Optimal solution; Graphical solution of linear programming problem.

BLOCK 5: INTRODUCTION TO GAME THEORY

Basic Concepts, Objectives and Applications; Classification of Games depending upon Number of Players, Sum of Gains and Losses, and, Strategy; Competitive Games: Two-Person Zero-Sum Games; Pure and Mixed Strategies ; Rules of Dominance and Iterated Deletion of Dominated Strategies; Solution of Games with and without Saddle Point; Two Person, Non-Constant- Sum Games: Cooperative Games and Nash Bargaining Solution; Non-Cooperative Games and Prisoners' Dilemma.

Reading List:
1. Koutsoyiannis, A Modern Microeconomics, ELBS with Macmillan Publication, London.
2. Henderson & Quandt : Microeconomic Theory, McGraw Hill, New York.
3. Samuelson, P.A. : Economics, McGraw Hill, New York.
4. Stonier, W & Hague, D.C. : A Text Book of Economic Theory, Longman, London.
5. Rubinfield & Pindyek: Micro Economics McGraw Hill, New York.

6. David N Hyman : Economics 4th Ed. Irwin, Chicago.
7. Sen, A.K. : Poverty and Famine: "An Essay on Entitlement and Deprivation", Oxford University Press.
8. Shastri, Rahul A. : Microeconomic Theory, Universities Press (India Ltd.) Hyderabad.
9. Chopra, P.N.: Advanced Economic Theory, Kalyani Publishers,   Ludhiana
10.   Ahuja, H.L. : Advanced Economic Theory-Micro Economic   Analysis, S. Chand & Co., New Delhi.

SECOND SEMESTER
Course Code: ECO20200
Title of the Course: Monetary Theory
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1 : DEMAND FOR AND SUPPLY OF MONEY
Classical and Keynesian Approach Approach Classical approach to demand for money-Cash transaction approach, cash balance approach, Keynes's liquidity preference approach-transactions, precautionary and speculative demand for money; Wicksell's analysis of interest and prices, Keynesian theory of money and prices. Definitions of money supply, Changes in the supply of money, The Money Multiplier- High powered money.

BLOCK 2: DEMAND FOR MONEY: POST KEYNESIAN APPROACH
Baumol's inventory theoretic approach; Tobin's theory of risk aversion.Friedman's restatement of the quantity theory of money; Patinkin's theory of money and prices.
Basic concepts - Meaning, types, sources and causes; Demand-pull inflation - Monetarists' view, Keynesian view, Bent Hansen's view; Cost-push inflation, Inflationary gap.Phillips curve analysis, Natural rate hypothesis, Tobin's modified Phillips curve; Stagflation.Monetary Policy, Fiscal Policy, Incomes policy-objectives, instruments and effectiveness.

BLOCK 3 ANALYSIS OF INFLATION
Basic concepts- meaning, types, sources and causes; Demand-pull inflation-Monetarists view, Keynsian view, Bent Hansens View; Cost-push inflation,inflationary gap. Phillips curve analysis, Natural rate hypothesis,Tobin's modified Phillips curve;stagflation.Monetary Policy,Fiscal policy,Incomes Policy –objectives,instruments and effectiveness.

BLOCK 4 : ANALYSIS OF BUSINESS CYCLE
Meaning, types, characteristics and phases of Business cycle.Hawtrey's monetary theory, Multiplier-accelerator interaction models of Hicks and Samuelson, Control of business cycle.

BLOCK 5: MONEY MARKET WITH SPECIAL REFERENCETO INDIAN MONEY MARKET
Scope, need, objectives, constitutions, functions and limitations of Money Market.Structure of Indian money market, Defects of Indian money market; Steps to improve Indian market; Non-Performing Assets (NPA), Non-banking financial intermediaries in India.

Reading List :
1. Keynes, J.M. : 'General Theory of Employment, Interest and Money' Macmillan, London
2. Patinkin, Don: Money, Interest and Prices-part I, Harper & Row, 2nd Ed., London.
3. Lawrence Harris : Monetary Theory (Third Edition), McGraw Hills, New York.
4. N. Gregory Mankiw : Macro Economics (Third Edition), C.B.S. Publishers and distributors, 485 lain Hhawan, Delhi-100 032.

5. Friedman, M. : Studies in the Quantity Theory of Money, The University of Chicago Press, Chicago.
6. Hajela, P.D. : Problems of Monetary Policy in Underdeveloped Economy, Kitab Mahal, Allahabad.
7. Paul, R.R. Monetary Economics, Kalyani Publishers, Ludhiana.
8. Sinha R.K. : Monetarism Versus Keynesianism, Deep & Deep Publications, New Delhi.
9. RBI Reports: Currency and Finance.

SECOND SEMESTER
Course Code: ECO20300
Title of the Course: Statistics for Economic Analysis
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1: SAMPLING METHODS AND TEST OF SIGNIFICANCE
Census, Sampling and Sampling Distribution-Sampling methods, Sampling and non-sampling errors, Sampling distribution of an estimate, Point and interval estimations. Chi-Square, t-test & F-test, Analysis of variance, Standard Error.

BLOCK 2 : CORRELATIONAND REGRESSION   Simple   correlation,   Multiple correlation, Partial correlation. Method of least squares, Multiple linear regression.

BLOCK 3 : INTERPOLATION & EXTRAPOLATION
Graphic method, Parabolic curve, Binomial expansion method, Finite difference method, Newton's forward difference, Newton's backward difference method, Newton Gauss method.

BLOCK 4 : PROBABILITY & DISTRIBUTION
Classical and empirical definitions of probability, Laws of addition & multiplication, Mathematical expectation.Discrete and continuous distributions-Binomial, Poison and Normal distribution.

Reading List:
1. Croxton & Cowden : Applied General Statistics, Prentice Hall of India Pvt. Ltd., New Delhi.
2. Gupta, S.P. Statistical Methods, Sultan Chand & Sons, New Delhi.
3. Taro Yamane : Statistics, Prentice Hall of India, New Delhi.
4. Agarwal, B.L., Basic Statistics, (Second Edition), Wiley Eastern Ltd., New Age International Ltd., New Delhi.

SECOND SEMESTER
Course Code: ECO20400
Title of the Course: <u>Regional Economics</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1: REGIONAL ECONOMICS: BASIC CONCEPTS AND GROWTH THEORIES
> Definition of a Region; Definition, scope, content and importance of regional economics.Current state of regional growth theory-Export base model, Neoclassical model; Input-output model.

BLOCK 2: REGIONAL PLANNING
> Definition, scope, content and needs of regional planning; Regional Vs National planning.Location theory and regional growth; Growth pole theory and Regional planning, Concept of regional multiplier and its application; Role of decentralized planning in regional development; Vision 2020.

BLOCK 3: REGIONAL ECONOMIC DEVELOPMENT
> Concept of regional development, Strategy of balanced regional development, Myrdal's Backwash theory, Urbanization and regional development.Regional disparities in India, Goals for balanced regional development and economic policy in India.

BLOCK 4 : RESOURCES OF NORTH EAST INDIA
> Mineral, Forest and Water resources; Economic characteristics of North East India.Trends in population growth, Composition of population, Distribution of the population, Population density, Urbanization, Occupational distribution, Migration-internal and international.

BLOCK 5: SECTORAL DEVELOPMENT OF NORTH EAST INDIA
> Trends and pattern of production - Land use, Agricultural holdings and Cropping pattern, Food production and food security, Shifting cultivation, Modernization of agriculture, Sustainable agriculture, Problems of agriculture with special reference to flood, erosion and soil conservation.
> Industrial Development, Major and Small Scale Industries- Problems and prospects, Development of infrastructure, power, Transport and communication, Growth of banking and financial institutions, Role of NEC in economic and infrastructural development.Performance of Social Sector, Role of NEDFi, SIDBI, IDBI and other development agencies; Border trade and Look East Policy.

Reading List:
1. H.W. Richardson (Ed) : Regional Economics : A. Reader, Allen & Irwin, London.
2. H.W. Richardson: Regional Growth Theory; MacMillan.
3. Goswami, P.C. : Economic Development of Assam, Kalyani Publishers, Ludhiana.
4. B. Dutta Roy, Social and Economics Profile of N.E. India, Omsons, New Delhi.
5. Singh, J.K. : Regional Economics, Bharati Prakashan, Varanasi.
6. NCEAR: Techno Economic Surveys of Assam, Arunachal Pradesh and Manipur and Nagaland.
7. NEC: (a) Basic Statistics of N.E. Region, 1980-85.
(b) Towards Regional Development : Plans and Perspective (1980).
8. Govt. of Assam : Economic Survey and Statistical hand Book.
9. Assam Prakalpa: Assam Beyond 2000.
10.Govt. of Assam: Vision 2025.

THIRD SEMESTER

THIRD SEMESTER
Course Code: ECO30100
Title of the Course: <u>International Economics</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block I: Classical and Neo-classical Theories of International Trade
      Absolute advantage theory of Adam Smith; Comparative advantage theory of David Ricardo; Relevance of the classical theory in less developed countries.Replacement of Labour Cost by Opportunity Cost; Trade under constant cost, Trade under increasing cost, Trade with more than two countries-two commodities model; Determination of actual terms of trade with the help of Reciprocal demand analysis and Offer curve technique.

Block 2: Modern Theories of International Trade:
      Factor abundance, Factor intensity reversal, Demand reversal; Factor-price eualisation theorem, equalization theorem; Leontief paradox.Vent for surplus theory, Imitation lag hypothesis, Linder theory, The product cycle theory of Vernon, Kravis theory; Intra-industry trade.

Block 3: Economic Growth and International Trade
      Effects of economic growth on terms of trade; Effects of technological progress and factor growth on volume of production, terms of trade and welfare.Hypotheses of secular deterioration in the terms of trade- Myrdal, Prebisch and Singer's views; Immiserising growth.

Block 4: Foreign Investment
      The theory of foreign direct investment, effects of direct investment on home and host countries, Risk involved in foreign direct investment for both home and host countries.Meaning of portfolio investment, Motives for portfolio investment, Determinants of portfolio investment, Risk involved in Foreign Portfolio Investment for both investors and host country .

Block 5: Economic Integration
      Free trade area, Customs union, Common market and Economic union; Customs union -Static effects - Trade creation and Trade diversion; Dynamic effects of customs union.
      EU, ASEAN, NAFTA, SAFTA, SAARC.
      IMF- Objectives, functions, achievements and failures; WTO -Objectives, Agreements on Intellectual Property Rights and Agriculture and their impacts on India.

Reading List:
1   Bo Sodersten : International Economics, Macmillan Education, London.
2   H.G. Mannur : International Economics: Theory and Policy Issues, Vikas Publishing
      House, New Delhi.
3   Krugman Paul & Obstfeld : International Economics (FourthEdition), McGraw Hill, New
      York.
4   Viner, J. : Studies in the Theory of International Trade, Allen & Unwin, London.
5   G.C. Hufbauer: The Multinational Corporation and Direct Investment in P .B. Kenen
      (Ed.), Interl1ational Trade and Finance, Cambridge University Press. New York.
6   Salvatore, D. : Theory and Problems of International   Economics,
(Schaum's Outline Series) McGraw Hill Book   Company, New York.
7   D.R. Apployand & A.J. Field Jr. Irwin: Internation Economics,(Third Edition), McGraw Hill, New
Delhi.
8   Grubel, H.G. : International Economics, Irwin, Homewood -III.
9   U.N.O. Trade and lJevelopment Report, 2000.

THIRD SEMESTER
Course Code: ECO30200
Title of the Course: Mathematics for Economic Analysis
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

BLOCK 1: SET, MATRIXAND INPUT-OUTPUT ANALYSIS
    Concept of set, Types, Set operations, Convex set, properties of Convex set.Matrix-Types, Operations, Cramer's Rule; Determinant- Properties.Structure of Input Output Model, Static Input-Output Model, Hawkins-Simon Conditions.
BLOCK 2 : DIFFERENTIATION
    Definition and Basic rules of Differentiation-Partial and Total differentiation-derivative of implicit functions- Applications of derivative in case of elasticity, Cost function, Revenue function and derivation of other marginal functions-Application to comparative static analysis of market model and national income model.Optimization-unconstrained and constrained-Applications to cost minimization, Revenue maximization, Profit maximization and equilibrium of firm-Optimization with equality constraint-Lagrange's Multiplier Method-Application to Consumer's equilibrium and producer's equilibrium.
BLOCK 3: PRODUCTION FUNCTIONS
    Nature and properties of production functions.Cobb-Douglas and Constant Elasticity of Substitution Production Function-Properties and importance.
BLOCK 4: INTEGRATION
    Concept of Integration; Standard Integrals; Important Rules; Methods of Integration. Derivation of total functions from marginal functionsConcept of Definite Integral; Definite Integral as an Area; Applications of Definite Integrals in Economics application in case of consumer's surplus and producer's surplus.
Reading List:
1. Alpha C. Chiang : Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
2. RG.D. Allen: Mathematical Analysis for Economics, Macmilan India.
3. G.C. Archibald & R.G. Lipsey : An Introduction to a Mathematical Treatment of Economics, AITBS, New Delhi, 1984.
4. Baruah, S : Basic Mathematics and its Application in Economics, Macmilan India.
5. Taha, H.A. : Operations Research: An Introduction (6th edition), Prentice Hall of India Pvt. Ltd., New Delhi.
6. Yarnane, Taro, Mathematics for Economists, Prentice Hall of India, New Delhi.
7.   Baumol, W.J. : Economic Theory and Operations Analysis, Prentice Hall, Englewood Cliffs, New Jersey.

THIRD SEMESTER
Course Code: ECO30300
Title of the Course: <u>Development Economics-I</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block-1: Economic Growth and Development.
      The concepts of development and growth; Causes and features of underdevelopment; Poverty - Absolute and relative, Vicious circle of poverty; Factors affecting growth -capital, labour and technology.Measurement of development and development gap -GNP, Per capita income. Composite Index, Inequality of income, Human development index.

Block 2 : The Theories of Growth
      Classical growth theory, Harrod-Domar growth models, Neo-classical growth theory -Solow and Meade models, Joan Robinson's model.Balanced growth theory. Unbalanced growth theory, Critical minimum effort thesis. Low level equilibrium trap, Endogenous growth theory .

Block 3: Approaches to Political Economy:
      Radical, Mainstream and Institutional, Development and Underdevelopment – 'Dependencia' Theories of Development – Center-Periphery Model, False-Paradigm Model, the Dualistic Development thesis – the Neoclassical Counterrevolution – Political Instability and Economic Policy; the role of State in Less Developed Economies, the Role of Institutions

Block 4: Population Growth and Economic Development
      Factors affecting population growth-Birth, death and migration, Natural change in population; Age composition and occupational structure of the developed and developing countries, Population pyramid. Positive and negative impacts of population growth, Population policy for economic development.

Reading List:
1.   Meier, Gerald M. & Rauch, J.E. : Leading Issues in Economic Development, Seventh Edition, 2000, Oxford University   Press.
2.   Higgins, B. : Economic development -Problems, Principles & Practices, Revised Edition Reprint, 1994, Universal Book Stall, New Delhi.
3.   Gill, R.T. : Economic Development: Past and Present, Prentice-Hall of India Pvt. Ltd., 1992.
4.   Ray, Debraj : Development Economics, Oxford University Press.
5.   Adelman, I. : Theories of Economic Growth and Development, University Press, Stanford, 1961.
6.   Hogendom, J : Economic Development, Addison, Wesley, New York, 1996.
7.   Behrman, S. and T.N. Srinivasan : Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam, 1995.

THIRD SEMESTER
Course Code: ECO30410 (Elective)
Title of the Course: Economics of Agriculture(Group A)
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block I: Agriculture and Economic Development
   Scope of agricultural and rural economies, changing importance of agriculture, Traditional agriculture and its modernization; Sectoral dependence of agricultural economics; Interdependence between agriculture and industry .
Block 2: Agricultural Production and Resource Use
   Returns to scale; Input-output relationship; Choice of resource allocations, resource substitution and factor relationships; Cost and supply curves; Factor combination and least cost production.
   Production decision; Resource use under uncertainty condition; Extensive and intensive cultivation.
Block 3: Factor Markets
   Principles of land utilization; Size of firm: Tenancy and reform; Land tenure and farming systems.Agricultural labour., wages and employment; Unemployment~ and disguised unemployment.Saving and capital formation; Objectives and principles of a sound credit structure; Characteristics of agricultural credit; Types of credit; Sources of credit; Co-operative credit and credit supervisation.Problems, farm efficiency and factors determining efficiency.

Block 4: Agricultural Marketing
   Market surplus and marketable surplus, Approaches of agricultural marketing, Problems of agricultural marketing, Types of costs, Organization of markets, Market grades and standards.Market regulations, Market intelligence, Information services, Co-operative marketing.International commodity agreement, International Patent Ordinance, WTO and Indian agriculture.
Block 5: Agricultural Prices
   Demand and supply of agricultural produce, Short and long run movement of agricultural prices, Cyclical and seasonal variations, Cobweb theorem and Producer's response to price.Support price; Problems of agricultural prices, State intervention in production and marketing, Price and income stability, Protection of farm wages, Planning in agriculture

Reading List:
1.   Cohen, R:Economics of Agriculture,James Nisbet   Co,
       Cambridge Universitry Press, London.
2.   Sadhu & Singh:Fundamentals of Agricultural Economics,   Himalaya PublishingHouse, Bombay.
3.   Soni, R.N.:Leading Issues in Agricultural Economics,Shobin Lal Nagin Chand & Co., Jalandha
4.   Heady, E.O.: Economics of Agricultural Production & Resource, Prentice Hall, New York.

THIRD SEMESTER
Course Code: ECO30420
Title of the Course: Demographic Analysis(Group –B)
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block I: Demography and Sources of Demographic Data
Definition, Scope and Importance of Demography.Definition, History, Salient features, Scope and need, Types of enumeration - household method and canvasser method; Methods of census operation - defacto and dejure.Definition, Salient features, History and Development of Registration of Vital Events; Problems of Vital Registration.Nature, scope, need and advantage of sample survey; Other Sources of demographic data -International Migration records, NSSO records, Administrative records etc.

Block 2: Basic Measures of Fertility and Mortality
Crude Birth Rate, General Fertility Rate, Age-specific Fertility Rate, Total Fertility Rate, Child-Women Ratio; Differential Fertility; Measures of Reproduction -Gross Reproduction Rate and Net Reproduction Rate; Crude Death Rate, Specific death rates with respect to age, sex; Infant mortality, Neo-natal mortality; Foetal, Perinatal and Maternal mortality rates; Standardised death rate. Current and Cohort life table, Complete and Abridged life table, construction of life table, uses of life table.

Block 3: Migration
Basic concepts; Direct Method of estimating migration- Birth Place Statistics.Intercensal Component Method, National Growth Rate, Vital Statistics Method, Forward and Reverse Survival Rate methods.

Block 4: Population Structure and Distribution
Age structure -Measures of age structure, Population Pyramid, Aging of population, Factors affecting age structure; Sex structure -Measures of sex structure, Factors affecting sex structure,Marital characteristics -Classification of marital status, Measures of marital status; Economic Characteristics -Labour force -Concepts and Definition, Measures of labour force participation -Crude labour force participation rate, General labour force participation rate, Age-specific labour force participation rate, Standardised labour force participation rate.Meaning and measures of population distribution; Factors affecting population distribution; Urbanisation -Various concepts, Measures of Urbanisation -Concentration and Dispersion of population -Lorenz Curve and Gini's Concentration Ratio; Components of Urban Growth;

Block 5: Population Growth and Projection:
Intercensal Growth Rate, Annual average growth rates -Arithmetic, Geometric and Exponential growth rates;   Meaning, assumptions and uses of population projection; Methods of population projection.

Reading List:
1.   Shryock, H.S. : Methods .and Materials of Demography, et al, Academic Press, New York.
2.   Srinivasan, K.: Basic Demographic Techniques &   Application,   SagePublications, New Delhi.
3.   Rama Kumar, R.: Technical Demography, Wiley eastern Ltd, New Delhi.
4.   Barcley G. W .: Techniques of Population Analysis, John   Wiley & Sons, New York.
5.   Pollard, A.H. : Demographic Techniques, et al, Pergamon   Press, Australia.
6.   Bouge D.J. : Principles of Demography, John Wiley & Sons, New York.
7.   Cox, P .R. : Demography, Cambridge University Press, Cambridge.

FOURTH SEMESTER

FOURTH SEMESTER
Course Code: ECO40100
Title of the Course: <u>Development Economics-II</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block 1: Sectoral Aspects of Development
>Role of agriculture in economic development, Agricultural modernization and sustainable development, Globalisation and its effects on agriculture and industrial sectors in developing countries,
>
>Infrastructure and economic development; Role of government in development. Basic concepts, techniques and issues, Intermediate technology.

Block 2: Human Resources
>Contribution of education to economic development, Human capital formation, Health, Education and nutrition, The role of human capital in economic development.
>
>Gender and development - women empowerment, poverty and development in the Third World Economies. Basic concepts of environment, Environmental issues and sustainable development.

Block 3: Concepts and Measurement of Poverty
>Measures of poverty- Head-count; Foster –Greer- Thorbecke, Sen; Critique of the poverty line approach; Absolute vs. Relative Poverty; Millennium Development Goals and Poverty; Poverty traps, Multi-dimensional measures of Poverty: MPI; Poverty as capability failure; Poverty and under nutrition; poverty and environment; Policies to tackle Poverty: Macro vs. Micro Interventions; Targeting vs. Universalism; Micro-credit.

Block 4: Inequality
>Causes and measures of income inequality, Lorenz curve, Gini Co-efficient, Concentration ratio, Entropy; Growth-Inequality and Poverty debate, Patterns and Changes in inequality and poverty- the inverted U hypothesis, Inequality and capitalism in the twenty-first century, the rise of global middle class and global plutocracy; Inequality within and among countries; Measures to reduce inequality; Inclusive Growth

Reading List:
1.   Meier, Gerald M. & Rauch, J.E. : Leading Issues in Economic Development, Seventh Edition, 2000, Oxford University   Press.
2.   Higgins, B. : Economic development -Problems, Principles & Practices, Revised Edition Reprint, 1994, Universal Book Stall, New Delhi.
3.   Gill, R.T. : Economic Development: Past and Present,   Prentice-Hall of India Pvt. Ltd., 1992.
4.   Ray, Debraj : Development Economics, Oxford University Press.
5.   Adelman, I. : Theories of Economic Growth and   Development, University Press, Stanford, 1961.
6.   Hogendom, J : Economic Development, Addison, Wesley, New York, 1996.
7.   Behrman, S. and T.N. Srinivasan : Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam, 1995.

FOURTH SEMESTER
Course Code: ECO40200
Title of the Course: <u>ENVIRONMENTAL ECONOMICS</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block I: Economics and Environment
　　　Environment and Development: Basic Issues -Resources and Residuals -Environment as an Economic and Social Asset -Environmental Economics -History of Development of the subject, Definitions and Objectives -Resource Economics Vs. Environmental Economics.Renewable and Exhaustible Resources -Pollutants -Types and Sources of Pollutants - Choice of Environmental Quality for the current and future generation.

Block 2: Public Goods
　　　Environmental Quality as Public Goods -Characteristics of Public Goods -Externalities -Environmental Externalities -Environmental Damage as Negative Externalities - Allocative Inefficiency of Competitive Equilibrium in case of Environmental Quality -the Social Optimum Equilibrium.Concept of Market Failure -the Coase Theorem -Common Property Resources and its characteristic feature.

Block 3: Environmental Pollution
　　　Air, Water, Soil, Noise, Nuclear, Thermal and Marine: Causes, Impacts and Policy Measures -Problem of Solid Wastes and their Management; Solution to Environmental Problems -Conventional, Economic and Incentive based.Concept, Components and Indicators of sustainable development, Sustainable Accounting -Environmental Reporting, Accounting and Auditing -Environmental Impact Assessment: Basic Concepts.

Block 4: Environmental problems
　　　Environmental problems of the Developed and Developing countries -Policy Responses -Ozone Depletion, Green House Effect and Global Warming,Loss of biodiversity -Causes, Consequences and Remedial Measures -Efforts at national and international level -Carbon Trading.

Block 5:　　Environmental Problems of India and North East India
　　　Environmental Problems of India -Causes, Consequences and Remedial Measures - India's Environmental Policy -Govemrnent Response to Environmental Problems - Environmental Laws and their Implementation -Policy instrument for controlling water and air pollution -Forest Policy -Joint Forest Management -Social Forestry -rationale and benefits.Environmental Problems of North East India -Causes, Consequences and Remedial Measures.

Reading List:
1. Barry C. Field, Environmental Economics: An Introduction (2nd Edition), Mc Graw Hill, New York, 1997.
2. Hanley, N ., J .F .Shogern and B. White(1997), Environmental Economics in Theory and Practice, Macmillan
3. Kolstad, C.D., Environmental Economics, OUP, New Delhi
4. Scott J. Ca11an and Janet M. Thomas, EnvironmentaEconomics and Management: Theory , Policy and Applications, Irwin, Chicago, 1996.
5. Tom Tintenberg, Environmental and Natural Resources, (5th Edition) Addison Wesley, New York, 2000.
6. D.W. Pearce and R.K. Turner, Economics of Natural Resources and the Environment, John Hopkins University Press, Baltimore, 1990.
7. Sankar, U. (2001), Environmental Economics, OUP, New York.
8. Bhattacharya, R.N .(Ed), Environmental Economics: An Indian Perspective, OUP , New Delhi.
9. Sengupta, R.P. (2001), Ecology and Economics: An Approach to Sustainable Development, OUP, New Delhi.
10. ESCAP(1997), Accounting and Valuation of Environment-　　A Primer for Developing Countries, Volume I, United Nations, New York.
11. Mehta, S., S. Mundle and U. Sankar (1995), Controlling　　Pollution: Incentives and Regulation, Sage, New Delhi.
12. Singh, J.K., Das, D.K., Environmental Economics and Development, Deep and Deep, New Delhi.

FOURTH SEMESTER
Course Code: ECO40300
Title of the Course: <u>ECONOMETRICS</u>
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block 1 : Fundamental Concepts:

 Statistic and Parameter, Estimator & Estimate, Characteristic of a good estimator, Sampling distribution, Random variable, Variance, Co-Variance & Correlation,

Block 2 : Linear Regression Model:

 Principles of least squares - Two-Variable Linear regression Model, BLUE – The Gauss–Markov Theorem – Extension to Multi-Variable Linear regression Model, Interval Estimation - Hypothesis testing, Prediction & Forecasting; Maximum likelihood, Dummy Variable.

Block 3 : II Single Equation Problems - I:

Auto-Correlation, Heteroscedasticity – Problem, Detection and Alternative Methods of Estimation – Generalised Least Square Method, Properties of GLS Estimators.

Block 4 : III Single Equation Problems - II:

Multicollinearity, Errors in Variable and Specification Errors – Problems, Detection and Alternative Methods of Estimation.IV Distributed Lag Models: Concepts – Koyck Model – Estimation – Rationalization of Koyck Model –

Block 5 : Time Series Analysis
Concepts and components, Measurement of trend-seasonal, cyclical, irregular movements; Importance of time series analysis – Stationary and Non-stationary time series – Univariate time series processes: AR, MA, ARMA and ARIMA – Estimation of AR, MA and ARMA models.

Reading list:
 1. Gujarati, D.N.: "Basic Econometrics", McGraw Hill, New Delhi.
2.Pindyck, R.S. and Rubinfeld, D.L. : "Econometric Models and Economic Forecasts", McGraw Hill, New York.

3.Dourgherty, C: "Introduction to Basic Econometrics

FOURTH SEMESTER
Course Code: ECO40410
Title of the Course: Rural Development (Group A)
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

Block 1 : Concepts of Rural Development
   Meaning of Rural Development, Basic elements of development, Expectations of rural people. Social constraints in rural development.Distribution of income. Measures of rural poverty in India.

Block -2 : Determinants of Rural Development
   Utilization of natural resources, Changes in employment. Increase in capital, Technological changes.Infrastructural development: Role of information technology in rural development.

Block - 3 : Diversification of Rural Economic Activities
   Livestock resources and their productivity, problems of marketing, White revolution; Fishery and poultry development.Issues and problems in rural industrialization. Development of agro based industries. Forestry, Horticulture and Floriculture.

Block 4 : Policies and Programmes of Rural Development
   Community Development Programmes, Special group and Area Specific Programmes, Operation flood.Self-help groups, SGSY and other employment related development programmes.

Block 5 : Planning and Management
   Decentralised planning, Organisations for rural development DRDA, DIC, Panchayati Raj Institutions, Co-operatives, CAPART and NIRD, Rural development under planning.Role of NABARD, RRB's, Commercial Banks, Cooperative Banks, NGO's, Foreign Investment and Foreign Aid.

Reading List:
1.   Singh, Katar : Rural Development Policies and Management. Sage Publications, New   Delhi.
2.   Maheshwari, S.R. : Rural Development in India. Sage Publications, New Delhi.
3.   Desai, D.K. : Management in Rural Development, Oxford   and IBH, New Delhi.
4.   Harriss : Rural Development, ELBS.
5.   Mascarenhas : A Strategy for Rural Development, Sage Publications, New Delhi.

THIRD SEMESTER
Course Code: ECO40420
Title of the Course: Population Studies (Group B)
Marks: 100(Term-end Examination:80 +Internal Assessment:20)

First Half- Theories of Population
Block I: Pre-Malthusian Views on Population and Theories of Population
Ancient writings of greek, Roman, Chinese and Indian thinkers, Medieval Christian thinkers, view of the Mercantilists, Physiocrats and Political Arithmeticians (Graunt, Petty); Writings of Condorcet and Godwin.Malthusian Theory , Theory of Optimum Population, Theory of Demographic Transition, Contribution of the Socialist School.

Block 2: Fertility Theories:
Social Capillarity Theory (Dumont), Theory of Cultural Lag or Diffusion (Carlson), Theory of Change and Response (Davis).Economic Theories of Leibenstein (Cost-benefit) and Becker (Micro Consumption); Biological Theories of Spencer, Gini, Sadler, Doubleday.

Block 3: Fertility and Mortality Variables
Background and Proximate determinants of Fertility, Theory of Intermediate Variables.
Economic, Ecological, Cultural, Familial, Marital, Parental, Perinatal, Nutritional, Hygienic, Genetic, Natural, Accidental, interventional.

Block 4: Migration
Factors affecting migration, Push and Pull factors, Demographic, Economic, Social and cultural consequences of migration.Lee's Theory, Peterson's Typology, Ravenstein's Laws of Migration, Theory of Intervening Opportunities (Stouffer), Zipf's gravity Model of Migration.

Reading List :
1.   Coontz, S.H. : Population Theories and Their Economic Interpretations, --Routledge & Kegan Paul, London.
2.   Mahavevan, K. (Ed) : Fertility and Mortality, Sage publications, New Delhi.
3.   Bhende, A.A. & Kanitkar, T. : Principles of Population Studies, Himalaya Publishing House, Bombay.
4.   Kenneth Kammeyer -Population Studies, Rand Mc Nally College Publishing Company, Chicago.
5.   Ralph Thomlinson: Population Dynamics, Random House, New York.
6.   Clark, W .A. V. : Human Migration, Sage Publications, New Delhi.
7.   Cebula R.J. : The Determinants of Human Migration, Lexington Books, Lexington.
8.   Donald Bogue : Principles of Demography, John Wiley & Sons, Inc. New York
9.   Coale, A.J. & Hoover, E.M.: Population Growth and Economic Development in Low Income Countries, Princeton University Press, Princeton.
10.   Evert Lee: " A Theory of Migration" in J.A. Jackson (Ed.)   Migration,Cambridge University Press, Cambridge.
11.   Philip Hanser & O Duncun (eds): The Study of Population, Asia Publishing House, New Delhi.
12.   D.V. Glass: Introduction to Malthus, frank Grass & Co.,London.
13.   J. Spenglar & O Duncun: Population Theory and Policy, The Free Press of Glancoe, London.
14.   Victor S D Souza: Economic Development, Social Structure and Population Growth, Sage Publications, New Delhi.

Second Half: Indian Population Problems

Block 1: Sources of Demographic Data in India
History. Characteristic, Coverage, Stages, Reliability, Salient Features of the Latest CensusHistory and Reliability of the Vital Registration System; SRS and NSSO records

Block 2: Major Demographic features of Indian population and Population Distribution
Size, Growth, Births, Deaths, Marriages, Literacy, Sex-Ratio; Trends in these features over the decades. Occupational and Rural-urban distribution, Trends of Urbanisation and its causes, Density, factors affecting density, Internal and International migration.

Block 3: Population Policy, Human Capital Formation and   Manpower Planning in India
The shift in policy from population control to family welfare, Family welfare programmes -Failures and success, Reproductive Health, Maternal nutrition and Child health policies, Various aspects of the National Population Policy, Population education.Meaning and Objectives, Components of Human Capital Formation, Problems of Human Capital Formation and Manpower Planning.

Block 4: Population Growth and Population Distribution in Assam
Behaviour of population dynamics, Problem of Illegal Migration, Population growth and land use pattern.Occupational and Rural-Urban distribution, Density of Population, Trend and Pattern of urbanization.

Reading List :
1.   Bhende, A.A. & Kanitkar, T. : Principles of Population Studies, Himalaya Publishing House, Bombay.
2.   Ghosh, B.N. : Population Theories on Demographic Analysis, Minakshi Prakasan, New Delhi.
3.   Coale, A.J. & Hoover, E.M.: Population Growth and Economic Development in Low Income Countries, Princeton   University Press, Princeton.
4.   Agarwal, S.N. : Population, National Book Trust, New Delhi.
5.   Davis, K.: The Population of India and Pakistan, Princeton University Press, Princeton.
6.   Driver, E.D.: fertility Differentials in Central India, Princeton University Press, Princeton.

Faculty and support staff requirement: There is only one full – time faculty for this programme and DODL will take the help and Services from the faculties of parent department and from the faculties of nearby Colleges.

Instructional Delivery Mechanism:

The instructional delivery mechanism and various media through which Study Inputs will be provided for this programme are Print Material (SLMs), Face to face and on-line (e-mail, Whatsapp, social media etc) tutorials, counselling, Video CDs/ DVDs, Radio Broadcast Gyanmalinee and Radio-counselling and Recorded lectures on the website.

Identification of Media and Student Support Service:

- **Research and Media Support Service**

The Research and Media Support Service wing has been established with a two fold objective to facilitate in house research Distance Education as well as supplement the distance learners with multi-media facilities. It includes information about the various events organized by the Directorate, assisting in administrative works, support with ICT tools etc.

Media Support Service provides supplementary support to the Distance Learners by the means of

Radio Programmes GYAN -MALINEE : On every Thursday at 8pm from All India Radio, Dibrugarh Centre, (M/W- 521.1)

• **Multi-media CDs :**The Directorate has decided to provide its learners with course related

Video CDs, which may give a good support to the learning process of the learners.

• **Bulk SMS:** The Bulk SMS to the learners providing information regarding Counselling

programmes, Personal Contact programmes, Assignments, Date and Results of Examination,

other Administrative and Examination related information and so on. (if DO NOT DISTURB

service is NOT activated in the contact numbers.)

• Updating all the necessary information in the website www.dodl.dibru.ac.in

• **Internet facility :**

All enrolled students of the Directorate can avail various facilities by logging in the website

- www.dodl.dibru.ac.in Some of the facilities, apart from the general information are -

• **Assignment questions.**

• **Important dates.**

• **Result.**

• **Already broadcasted Radio programmes.**

Student Support Service:

- **Study Materials**

The Directorate has prepared all the study materials in the Self learning material (SLM) format in coordination with the course writers and editors through the help of the workshops

sponsored by Distance Education Council, IGNOU, New Delhi

- **Personal Contact Programes / Counselling Programmes**

Directorate conducts weekend counselling for its learners. Theses weekend counsellings can be availed by willing students on payment of minimal fees which will be notified by the directorate in the induction meeting The personal contact programmes for undergraduate courses shall be provided by the study centers and the coordinators will inform the schedules to the students enrolled at their respective study centers .

- **Induction Meet**

  The DODL organizes one day Induction Meet for the learners before commencement of counselling Sessions of the first semester to give a clear map of the open and distance learning . It is a two way interactive meet .

- **Learners meet:**

  The DODL organizes one day learners meet to address their different problems related to their process of learning.

- **University Week:**

  It is the cultural and sports confluence of DODL learners and formal mode students of the university. It is organized once in a year.

a) **Procedure for admissions, curriculum transaction:**

Admission procedure:

(i) Graduates (10 + 2 + 3 pattern) from any recognized university in the Major or Honours or General courses may apply for admission into a post-graduate course offered in Distance Education, D.U. and get themselves registered as learners of Distance Education, D.U.

(ii) Provisionally admitted learners shall have to produce the transcript issued by the institution last attended or, the original mark sheet and other testimonials for verification at the Office of the DODL, D.U. as and when call for. On production of transcript/original mark sheet and other testimonials their admission to the DODL, D.U. will be confirmed latest by January.

(iii) Students admitted shall be issued enrolment no.

(iv) Notwithstanding any rules and procedures, a student may be refused admission if his/her past conduct in the educational institution last attended has not been satisfactory. A student who has been expelled/ rusticated or disqualified by the university may also be refused admission.

(v) Admission of a student can be cancelled at any stage if it is found that he/she furnished incorrect information or has suppressed facts to secure admission. If any dispute arises out of such refusal/ cancellation, the decision of the Vice-chancellor, D.U. shall be final.

(vi) The fees for the Post-Graduate Programmes in Distance Education shall be fixed by the university from time to time. Such fee shall include Admission Fee, Counseling Fee, Course Material Fee, Postal charges etc., payable in single installment at the time of admission. No cash deposition of fees shall be considered. Fees shall be accepted only in the form of a demand draft. Otherwise online payment mode of fees is highly recommended.

(vii)   The subject taken for M. A. / M. Com. programme may not necessarily be one of the subjects in his/her degree course. The candidate may be allowed to appear in any subject having relevant/ allied subject at the degree level.

(viii)   Mathematics in Degree level is a mandatory requirement for the learner who wants to take admission into the M.A. / M.Sc. Programme in Mathematics.

(ix)   A Master Degree holder under Distance Education may be allowed to appear at the Master Degree Examination again in a different programme or group if otherwise eligible. But two simultaneous degree of any kind in any mode of education in the same institution or /and in different institution shall not be allowed.

(x)   Medium of Instruction (course materials & counseling) and Examination for the courses shall be English except for M.A. in language subjects.

(xi)   Study materials with Guidelines will be supplied to a student within a month from the last date of admission.

Admission notices/advertisements for various programmes of the Directorate of Open and Distance Learning, Dibrugarh University, are published in leading newspapers, both English and Assamese, at least forty-five days prior to the date of admission. Other than the DODL website www.dodl.dibru.ac.in, it is also notified in the Dibrugarh University website, www.dibru.ac.in. Candidates are to apply in the prescribed Application form only. Apart from the online admission process, the admission form along with the Prospectus for offline mode can be downloaded from the website www.dodl.dibru.ac.in.

(g) Admission Fees:

Rs 2500 (Course Fee / Semester) + 900 (Counseling Fee / Semester) + 400 (Enrolment Fee for the entire period of study to be paid only at the time of first entry level) + 300 (Gymkhana Fee for the entire period of study to be paid only at the time of first entry level)*

* The Gymkhana Fee of Rs. 300/- is meant only for the learners of Dibrugarh University DODL Study Centre and the same goes to the University General Fund use explicitly for Student Activities.

(h) Schedule of Programme:

A Post-Graduate programme under Distance Education shall be conducted in four parts – (Semester I, Semester II, Semester III and Semester IV). The schedule for the Distance Education System shall be as shown below:

    (i)   Odd Semesters (i.e., First and Third) : July to December (including   End Semester Examinations)

    (ii)   Even Semesters (i.e., Second and Fourth): January to July (including   End Semester Examinations)

The total marks in a Post-Graduate Programme in Distance Education shall be as follows:

    (a)   All the M.A. /M.Sc. / M.Com. Programmes of DODL, D.U. are of 2-years duration and the total credit ranges from 64-72.

    (b)   Total marks for the two years M.A. /M.Sc. / M.Com. Programmes of DODL, D.U. shall be 1600 per programme.

    (c)   20% of the marks in each course shall be assessed through assignments

    (d)   Rest 80% of the marks in each course (paper) shall be assessed through University End Semester Examination.

The syllabus for each course (paper) shall be divided into block and units keeping in view the Credit value of the course. The norms for delivery of courses through distance mode are as under:

Credit Value of the course	Study input (hours)	Size of SLMs (unit)	No. of Counselling Sessions Theory (10% of total Study hours)	* Practical Session (hours)
2 credits	60	6 – 8	6	60
3 credits	90	10-12	9	90
4 credits	120	14 – 16	12	120
6 credits	180	20 – 24	18	180

*   Some Programmes have practical component also. Practicals are held at designated institutions/ study centres for which schedule is provided by the study centre. Atendence at practical is compulsory.

(i) Assignment:

(i)   Assignment shall be a compulsory component of the evaluation process.
(ii)   20% of the each course (paper) shall be assessed through Assignments (Inter Assessment – In Semester Examination). Rest 80% of the marks in each course (paper) shall be assessed through University End Semester Examination
(iii)   The assignments to be submitted by a student would depend upon the Credit value of the Course, as follows:

Credit value of the course	No. of Assignments
2 Credits	1
3 credits	2
4 credits	2
6 credits	2

(iv)   A candidate may submit assignments in the office of the Directorate of Distance Education or at the Study Centres within the stipulated time. Subsequently the study centres shall transmit all the assignments programme-wise and course-wise to the office of the DODL for assessment.

(v)   Marks secured on the assignments by the candidates, who appeared in the examinations but failed, shall be carried over to the next permissible chances.

(vi)   Marks secured on the assignments by the candidates who filled in the examination forms but did not appear in the examination, shall also be carried over the next permissible chances.

(vii)   A candidate who fails to submit the assignments as per clauses shall be awarded zero in the In Semester Examination in the course where assignment(s) is (are) not submitted.

(viii)   The Internal Assessment evaluation system for the Post Graduate Programme under DODL, Dibrugarh University shall also be assessed and evaluated in OMR (Optical Marks Response) Sheet through Multiple Choice Objective Type Questions and Answers by conducting mid-term examinations.

(j) Examination and Evaluation

(i)   Examination and Evaluation shall be done on a continuous basis

(ii)   There shall be 20% marks for internal assessment (In Semester) and 80% marks for End Semester Examination in each course during every Semester.

(iii)   There shall be no provision for re-evaluation of the answer – scripts of the End Semester Examinations. However, a candidate may apply for re-scrutiny.

(iv)   Internal assessment is assignment based or OMR based.

(v)   End Semester Examination:
   (a) There shall be one End Semester Examination carrying 80% marks in each course of a Semester covering the entire syllabus prescribed for the course. The End Semester Examination is normally a written / laboratory-based examination.
   (b) The Controller of Examinations shall then make necessary arrangements for notifying the dates of the End Semester Examinations and other procedures as per Dibrugarh University Rules (at least 20 days in advance) and the Academic Calendar / Date Sheet notified by the University / DODL, Dibrugarh University.
   (c) The End Semester Examination for each course shall be of three hours duration.
   (d) Setting of question papers, moderation of question papers, evaluation of answer scripts, scrutiny, tabulation of marks etc. and announcement of result of results, shall be governed by the Dibrugarh University Examination Ordinance 1972 (as emended up to date).

(vi)   Betterment Examination:
   (a) A learner shall be entitled to take the "Betterment Examination" in any two theory courses of any of the four semesters after passing the Fourth Semester Examination only once. In this case the higher marks secured by the student shall be retained. The learner shall have to apply for betterment examination within one year after passing the Fourth Semester Examination.
   (b) No betterment shall be allowed in the practical examination.

(vii)   A learner shall be declared as passed a course, provided he / she secures –
   (a)   at least 45% marks in each course (paper) in the End Semester Examination.
   (b)   at least 45% marks in the course (paper) in aggregate in the In-and End-Semester Examination.

(viii)   A learner shall be declared as passed a Semester, provided he / she passes all the courses of a Semester independently.

(ix)   The marks of In – Semester Examinations (i.e., Internal Assessment) obtained by the learner shall be carried over for declaring any result.

(x)   A learner who fails or does not appear in one or more courses of any End Semester Examinations up to Fourth Semester shall be provisionally promoted to the next higher Semester with the failed course(s) as carry over course(s). Such learners will be eligible to appear in the carry over course in the next regular examinations of those courses. However, the following restrictions shall be applicable:

> **"A learner shall be entitled to avail the chance for a maximum of 5 consecutive years from the date of admission to clear a course or courses as well as the whole programme".**

(xi)   If a learner clears the Fourth Semester Examination before clearing all the courses of the previous semesters, the result of such candidate shall be kept withheld and his / her results shall be announced only after he / she clears the courses of the previous semesters.

(xii)   A learner must pass all his / her Semester Examinations within 5 years from the date of admission to the First Semester of any programme.

(xiii)   A learner shall be declared to have passed the Fourth Semester M.A. / M. Sc. / M. Com. Degree Programme provided he / she has passed all the Semesters and in all the course separately.

(xiv)   The system of evaluation in DODL, D.U. is different from that of the Conventional Department of the University. It has a multi-tire system of evaluation:

      (a)   Self-assessment exercise within each unit of study.

      (b)   Continuous evaluation mainly through assignments and/or Internal Assessment Examination through Multiple Choice Questions (MCQ) using OMR sheet.

      (c)   Term-end examination.

      (d)   Project work (Programme specific)

(xv)   The marks secured by a student in the Assignment / IA – In Semester Examination (20% of each course) is added with the marks secured in that course in End Semester examination which is 80% of the course.

(xvi)   The following scale of grading system shall be applied to indicate the performance of students in terms of letter grade and grade points as given below:

% of marks obtained in a course (Assignment + Term End)	Letter Grade	Grade Point	Qualitative Level
Above 95	O	10	Outstanding
85 – < 95	A$^+$	9	Excellent
75 – < 85	A	8	Very Good
65 – < 75	B$^+$	7	Good
55 – < 65	B	6	Above Average
50 – <55	C	5	Average
45 – < 50	P	4	Pass
Below 45	F	0	Fail
0	Abs/I	0	Absent / Incomplete

(xvii)   The letter Grade 'B$^+$' and above shall be considered First Class; the Letter Grade (s) 'B' to 'P' shall be considered as Second Class. However, letter Grade 'B' shall be considered as Second Class with minimum of 55% marks.

(xviii)   A learner is considered to have completed a course successfully and earned Letter Grade other than 'F' (Failed) or Abs / I (Absent / Incomplete).

(xix)   If a learner secures 'F' Grade in a Course, he / she shall have to reappear in the Course in the next legitimate chance.

(xx)   Result of the learners appeared in the 'Betterment' examination shall not be counted for the award of Prizes / Medals / Rank or Distinction.

(xxi)   A learner shall have to pay a prescribed fee to appear in the 'Betterment' Examination fixed by the University from time to time.

(k) Conversion of Marks to Grades and Calculation of GPA (Grade Point Average)

In the Credit and Grade Point System, the assessment of individual courses in the concerned examinations will be on the basis of marks only, but the marks shall later be converted into Grade by some mechanism wherein the overall performance of the learners can be reflected after considering the Credit Points for any given course. However, the overall evaluation shall be designated in terms of Grade. There are some abbreviations used here that need understanding of each and every parameter involved in grade computation and the evaluation mechanism. The abbreviation and formulae used are as under:

Abbreviations and Formula's Used:
G : Grade
GP : Grade Points
C ; Credits
CP : Credit Points
CG : Credit X Grade (Product of Credit & Grades)
Σ CG : Sum of Product of Credits & Grade Points
Σ C : Sum of Credit Points.

$$GPA = \frac{\Sigma\ CG}{\Sigma\ C}$$

GPA : Grade Point Average shall be calculated for each Previous and Final Year Examination.
CGPA : Cumulative Grade Point Average shall be calculated for the entire programme by considering both Previous & Final Year taken together. It shall be calculate by the formula given below:

$CGPA = (\sum\sum C_{ni}\ G_{ni}) / (\sum\sum C_{ni})$

Here,
C_i = number of credit for the ith course,
G_i = grade point obtained in the ith course,
C_{ni} = number of credit if the ith course n^{th} the year,
G_{ni} = grade point of the ith course of the nth year

After calculating the GPA for an individual year and the CGPA for the entire Programme, the value can be matched with the grade in the Grade Point table in (xvi) above

* GPA and CGPA shall be rounded off to 2 decimal points and reported to the Grade Card (Sheet) and Transcript.

(l) Conversion Formula:

Ordinarily the CGPA earned by a student may be converted to percentage of marks by following the formula mentioned as under:
CGPA×10 = Percentage of Marks

(m) Grade Card / Sheet (Reporting of Learners Performance):

The Grade Card / Sheet issued at the end of end term examination to each learner shall contain the following:
a. The marks obtained by a learner in each course,
b. The credit earned for each course registered for that year,
c. The performance in each course indicated by the letter grade,

d. The Grade Point Average (GPA),
e. The cumulative Grade Point Average (CGPA) and
f. Conversion formula.

(n) Transcript:

The University may issue consolidated Transcript on request to the Controller of Examinations which shall contain letter grades, grade points, GPA and CGPA mentioning the Course Title in detail, medium of instruction and programme duration.

(o) Rules for admission of Unsuccessful and Absentee Candidates

Unsuccessful learners fails to complete programme within the stipulated time may take re admission in the programme by paying fees fixed by the University from time to time.

(p) General:

For any matter not covered under these Regulations for the Directorate of Open and Distance Learning, the existing Dibrugarh University Rules, Ordinances and the Dibrugarh University Act, 1965 (as amended), The Dibrugarh University Examination Ordinance, 1972 (as amended up to date) and the Dibrugarh University Distance Education Ordinance, 2006 (amended up to date) shall be applicable.

Requirement of the laboratory support and Library Resources:

The programme Sociology does not required laboratory support services. Regarding library resources a library was established in the Directorate of Open and Distance Learning in the year 2013 for the learners, teaching staff, administrative staff as well as the employees of the institution. Moreover there is a central library namely " Lakshminath Bezboroa Granthagar" in the Dibrugarh University.

Cost estimate of the Programme and Provisions:

Keeping an eye on the number of applicants applying for the conventional Master Degree in English at Dibrugarh University and the yearly output of Degree learners with major in English from various affiliated Colleges under Dibrugarh University, it can be estimated that around six-seven hundred learners may seek admission to this Programme. If the cost estimate is calculated on 100 learners, the approximate cost is as follows:

Approximate earning (per 100 learners per annum)	= Rs. 720000/-
Development (*SLM writing, editing, review, printing cost, recording, radio slots, remuneration, etc.*):	= Rs. 450000/- (approx.)
Delivery (*Postage, courier, door delivery, etc.*):	= Rs. 20000/- (approx.)
Maintenance (*Syllabus revision, SLM revision, Committee expenses, etc.*):	= Rs. 10000/- (approx.)

Staff Payment and other Expenses	= Rs. 200000/- (approx.)
Total expenditure (approx.)	= Rs. 680000/-
Hence, total earning per 100 learners	= Rs. (720000.00 - 680000.00) = Rs. 40000.00

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Quality assurance mechanism and expected programme outcomes:

Need assessment and tracer studies will be conducted for quality assurance in terms of the Centre for Internal Quality Assurance. Moreover, revision and updating of material by obtaining feedback from students and resource persons will be done. A high powered committee constituted with the Deans, HoDs, Subject Experts from the University Departments and the Directorate will also monitor the syllabus upgradation, curriculum design, and other pedagogical and academic aspects of all programmes of the Directorate of Open and Distance Learning, Dibrugarh University.

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