SYLLABUS & PROGRAMME STRUCTURE OF FOUR YEARS UNDERGRADUATE PROGRAMME

ECONOMICS

(Major & Minor)

Semester : V - VI

(Under National Education Policy – 2020)

(Effective from the Academic Session 2023-2024)

MAHARAJA BIR BIKRAM UNIVERSITY
AGARTALA, TRIPURA: 799004

Syllabus for Economics Major IX (Semester 5th)

Programme /Class Degree: BA	Year: Third	Semester: 5^{th}
Subject: Economics (Major), Paper IX		
Course Code:	**Course Title: Public Finance**	
Course Objective	▪ The goal of public economics or public finance is to understand the proper role of the government in the economy from the points of view of economic efficiency and equity. ▪ This course involves a formal analysis of government taxation and expenditures as well as public debt. ▪ The subject encompasses a host of topics including public goods, market failures and externalities.	
Course Outcome	▪ The Course will help to develop comprehensive understanding of theories of public finance and their applications. ▪ The Course will thoroughly comprehend concepts and theories related to Public policy and rational choice. ▪ The students will have comprehensive understanding of theories of public expenditure and principles of taxation. ▪ The course demonstrates the role of government to correct market failures and possible advantage of public finance. ▪ The course will help to understand the possible burden, benefits and distribution of taxes among various classes of people.	
Credits: 04	Core Compulsory	
Full Marks: 100	Minimum Pass Marks: 40	
Unit	**Topics**	**No. of Lectures**
UNIT-I: (Introduction to Public Economics)	Nature, Scope & importance of Public Finance; Public Finance & Private Finance; Public goods & Private goods; Principle of Maximum Social Advantage; Concept, Causes of & remedies to market failure; Lindahl's Model of Public goods; Externalities	12
UNIT-II: (Taxation, Public Revenue & Expenditure)	Sources & classification of Public Revenue; Taxation: Types, Principles, Canons & Burden, Impact & Incidence; Difference, Merits & Demerits of Direct & Indirect Taxes;	14

	VAT & GST; Benefit Principle & Ability to Pay Principle of Taxation. Importance, Objectives & canons of Public Expenditure; Wagner's Law of Public Expenditure	
UNIT-III: (Public Debt)	Public Debt: Meaning, Types, Sources, Objectives & Economic Effects; Public Debt & Private Debt; Burden of internally & externally held Public Debt; Public Debt Management	12
UNIT-IV: (Fiscal Policy & Public Budget)	Fiscal Policy: Meaning, Instruments & Objectives of Fiscal Policy; Role of Fiscal Policy in a Developing Economy; Effects & Limitations of Fiscal Policy; Difference between Fiscal Policy & Monetary Policy Public Budget: Meaning, Types & Objectives; Balanced Budget & its Multiplier	14

Suggested Readings:

1. Bagchi, Amaresh (ed), *Readings in Public Finance*, Oxford University Press.
2. Bhatia H.L., *Public Finance*, Vikas Publishing House
3. Ghosh Ambar & Ghosh Chandana, *Economics of Public Sector*, PHI Learning Private Limited, New Delhi
4. Houghton, E. W. (Ed.) (1988), *Public Finance*, Penguin, Baltimore.
5. Jha, R. (1998), *Modern Public Economics*, Routledge, London.
6. Lekhi R.K. & Singh J., *Public Finance*, Kalyani Publishers
7. Mithani, D. M. (1998), *Modern Public Finance*, Himalaya Publishing House. Mumbai.
8. Mukherjee Debesh, *Antarjatik Arthaniti o Sarkari Arthaniti*, New Central Book Agency, Kolkata
9. Musgrave, R. A. & Musgrave P. B. (2017), *Public Finance in Theory and Practice*, McGraw Hill.
10. Rosen H., Gayer T. (2009), *Public Finance*, 9th ed., McGraw-Hill/Irwin.
11. Singh S. K., *Public Finance in Theory & Practice*, S. Chand & Company, Delhi
12. Stiglitz Joseph E. (2000), *Economics of the Public Sector*, W.W. Norton & Company, 3rd edition, 2000.

Syllabus for Economics Major

<table>
<tr><td colspan="2">Programme/ Degree: B.A.</td><td colspan="2">Year -3 : Semester-V</td></tr>
<tr><td colspan="4">Subject: Economics (Major-X) Paper-X</td></tr>
<tr><td>Course Code: EC108C</td><td colspan="3">Course Title: Mathematics for Economics</td></tr>
<tr><td>Course Objective:</td><td colspan="3">• To understand the knowledge of quantitative techniques;
• To equip students with the mathematical approaches necessary for a proper understanding of the discipline;
• To train students to learn the art of economic modeling.</td></tr>
<tr><td>Course Outcome:</td><td colspan="3">• Understand the quantitative techniques of economic analysis;
• Learn the mathematical approaches necessary for a proper understanding of the discipline;
• Get training in the art of economic modeling.</td></tr>
<tr><td>Credits:</td><td colspan="3">04</td></tr>
<tr><td>Max. Marks: 100</td><td colspan="3">Min. Pass Marks: 40</td></tr>
<tr><td>Unit</td><td colspan="2">Topics</td><td>No. of Lectures</td></tr>
<tr><td>Unit-I: Preliminaries</td><td colspan="2">Concepts: Variables, Constants, and Parameters; Equations and Identities; Sets - Use of Elementary Set Notations; Relations and Functions.

Functions: Types of Functions (Constant, Linear, Quadratic, Cubic, Rational, Exponential, logarithmic) - Graphs of the Functions; Illustration of Functions in Economics.</td><td>8</td></tr>
<tr><td>Unit-II: Elementary Linear Algebra</td><td colspan="2">Matrices: Concept, Matrix Operations (Addition, Subtraction, Multiplication of Matrices), Types of Matrix (Null, Square, Transpose, Identity, Inverse Matrices), Rank of a Matrix.

Determinants: Definition, Evaluating Determinants of a (2×2) and (3×3) Matrix; Minors and Cofactors; Concept of Non-singularity.

Solution for a simultaneous Linear Equation System by using Matrix Inversion method and Crammer’s Rule (Illustrations of the Economic Application to Simple Market Model and National Income Model).</td><td>10 (+10 tutorial)</td></tr>
<tr><td>Unit-III: Differential Calculus</td><td colspan="2">Concept of Limit, Continuity and Differentiability of a Function.
Rate of Change and Derivative; Derivative and Slope of a Curve; Derivatives of Algebraic Functions (Constant, Power, Sum-Difference, Product and Quotient Rule, Implicit and Explicit functions, Exponential and Logarithmic functions), Illustrations of the Application – Finding Marginal and Average Functions; Relationship between Total, Average and Marginal Functions; Elasticity.

Chain Rule; Partial Derivative; Application to Simple Market Model and National Income Model; Successive Derivative up to Second Order.</td><td>14</td></tr>
</table>

	Maxima and Minima Concepts; Total Derivative; Concept of Optimization; Concavity and Convexity of a Function; Unconstrained Optimization; Use of Lagrange Multiplier in Constrained Optimization with Equality Constraints; Application of Cost, Revenue and Profit in perfect Competition and Monopoly Market.	
Unit-IV: Integral Calculus	Indefinite Integration of different types of Functions and Economic Applications – from Marginal Function to Total Function; Definite Integration of simple Algebraic Functions. First order Differential Equations and Difference Equations – Concept with Example.	10

Suggested Readings:

1. Alpha C. Chiang, Kevin Wainwright: Fundamental Methods of Mathematical Economics, McGraw Hill, New Delhi.
2. Taro Yamane: *Mathematics for Economists: An Elementary Survey*, PHI Learning Pvt. Ltd., New Delhi.
3. Baruah, Srinath: Basic Mathematics and its Application in Economics, Trinity Publishers, New Delhi
4. Dowling, Edward.T: Mathematics for Economists, Schaum's Outline Series, McGrawhill Book Company

Syllabus for Economics Major

Programme/Degree: BA	Year: Third	Semester:V	
Subject: Economics (Major) Paper- XI			
Course Code:	**CourseTitle:Economics of Growth and Environment**		
Course Objectives	▪ To equip the learners with the vital concepts and tools of growth economics and prepare them to understand what makes economic progress persist. ▪ To make them understand the issues and concerns of economic growth through insights on the theories and models of economic growth. ▪ To enabling the learners conceptual clarity, theoretical foundation and critical thinking in growth, environment and resource economics.		
CourseOutcome	The Course will help the learners to • Developcomprehensiveunderstandingofthe meaningand theories ofeconomic growth, importance of natural resource in economics and its management. • Comprehend the issues and challenges of economic growth and sustainable development. • Become familiar with the approaches of growth and resource economics. • Understand the issues of market failures and valuation of environmental resources.		
Credits: 04	Core Compulsory		
Max. Marks: 100	Min. PassingMarks:40		
Unit	**Topics**	**No. of Lectures**	
UNIT-I: *Basics of Economic Growth*	Concept of growth, measurement issues; factors influencing growth - human capital and demographic characteristics, Harrod's model of growth, Domar's model of growth, Kaldor theory of Distribution	12	
UNIT-II: *Economic Growth Models*	Solow's neoclassical model of growth; Technical progress: Hicks-neutral, Harrod-neutral, Solow-neutral Technical progress; Endogenous growth models (innovation, imitation and growth): scale and non-scale economies and uneven growth	14	
UNIT-III: *Environment & Development*	Environment-Economy Interlinkage, Poverty, population and environmental degradation; Environmental Regulations – History, Design, Property Rights and Cosean Bargaining Problem, Domestic Environmental Policy: Indian Experience, Pigouvian taxes and subsidies; Basic concepts of Environmental valuation	12	
UNIT-IV: *Resource Economics*	Classification of natural resources - Renewable resources (growth curve and rate of exploitation) and Non-renewable resources (optimal extraction rule); Resource Taxonomy, Managing Exhaustible Resources, Managing Renewable Resources, Market, Free Access and Common Property Resources, Definition of Sustainable Development, Paradigms of Development, Indicators of sustainable development, Sustainable Accounting, Integrated Environmental Accounting; Environmental Kuznets' Curve hypothesis – theory and empirical evidence.	12	

Suggested Readings:

1. Allen. V. Kneese. *Natural Resource Economics: Selected Papers of Allen V. Kneese (New Horizons in Environmental Economics series)*, Edward Elgar Publishing Ltd

2. Barro, R. & Xavier Sala-i-Martin, *Economic Growth*, The MIT Press

3. Bhattacharya R. N. *Environmental Economics: An Indian Perspective*, Oxford University Press, India

4. G. Hardin. *The Tragedy of the Commons, Reprinted in U. Sankar, ed. Environmental Economics*, Oxford University Press

5. Kolstad, C. D.*Intermediate Environmental Economics*, Oxford University Press

6. Mankiw, N. Gregory. *Principles of Macroeconomics*, South-Western Cengage Learning

7. N. Hanley, J. Shogren and B. White. *Introduction to Environmental Economics*,CUP

8. Perman, R. Et Al., *Natural Resource and Environmental Economics*, 4thEdition, Addison Wesley, 2011

9. Sengupta R. *Ecology and Economics: An Approach to Sustainable Development*, Oxford University Press

<table>
<tr><td>Programme/Class Degree: BA</td><td colspan="2">Year: Third</td><td>Semester: Fifth</td></tr>
<tr><td colspan="4">Subject: Economics (Major)</td></tr>
<tr><td>Course Code:</td><td colspan="3">Course Title: Economic History of India</td></tr>
<tr><td>Course Objective</td><td colspan="3">▪ This course analyses and investigates the key aspects and knowledge of colonial history of Indian economy during the second half of British colonial rule.
▪ This course links directly to the course on India‘s economic development before independence.</td></tr>
<tr><td>Course Outcome</td><td colspan="3">▪ The course develops critical analytical skills and exposes learners to understanding the intricacies of India’s economic, political and social developments in the colonial times.
▪ The learners will gain knowledge about nature and status of the colonial economy of India.
▪ The performance of Indian agriculture and industry during the British period will be learned by the students.
▪ The history of Indian currency, evolution of irrigation and railways infrastructure, drain of wealth as well as international trade and tax system during the colonial period will be better understood.</td></tr>
<tr><td>Credits: 04</td><td colspan="3">Core Compulsory</td></tr>
<tr><td>Max. Marks: 100</td><td colspan="3">Min. Passing Marks: 40</td></tr>
<tr><td>Unit</td><td colspan="2">Topics</td><td>No. of Lectures</td></tr>
<tr><td>UNIT-I:
(Colonial India: Background and Introduction)</td><td colspan="2">Colonialism-Meaning, Basic Features of Colonialism in India; Stages of British Rule in India; Consequences of the British Rule on agriculture, industry and trade</td><td>08</td></tr>
<tr><td>UNIT-II:
(Agricultural Sector)</td><td colspan="2">Commercialization of Indian Agriculture— Concept, Importance and Effect
Land Tenure System & Agricultural Policy— Land Revenue Arrangement; The Zamindary System, The Permanent Settlement, Ryotwari System, Mahalwari System or Communal System
Irrigation System in British India; India’s Railways— Old & New Guarantee System, History of Its Extension, Economic Consequences; Policy, Effects of Railway Development; Railway vs Irrigation.
The Great Depression and Indian Agriculture.</td><td>11</td></tr>
<tr><td>UNIT-III:
(Industrial Sector)</td><td colspan="2">Deindustrialization: Features, Causes & Effects; The Decline of Handicrafts in India; Theory of Economic Drain
Problems of Some Large scale Industries - Cotton Textile, Jute, Iron</td><td>11</td></tr>
</table>

	and Steel; Managing Agency System The Great Depression and Indian Industry	
UNIT-IV: (Service Sector)	History of Indian Currency— Commercial Policy; The Policy of Discriminating Protection. Foreign Trade— Introduction; Colonial Pattern of Trade; Imperial Preference; Development of India's Trade Union Movement; The Great Depression and Indian Foreign Commerce Indian Tax System and Policy during British period	10

Suggested Readings:

1) Ranesh Roy— *Oupanibeshik Bharater Rashtriya Arthaniti*, Progressive Publishers.

2) Jaydeb Sarkhel and SekhSelim (2022) — Bharatio Arthonity, Book Syndicate (P) Ltd

3) Debesh Mukharjee— Indian Economic History, New Central Book Agency (P) Ltd.

4) Barun Chakraborty— *Bharater Sankhipta Arthanaitik Itihas*, Pashchimbanga Rajya Pustak Parsad.

5) Basudev Chatterjee—*Trade,* Tariffs *and Empire*, Oxford University Press

6) Dhiresh Bhattacharjee—*Bharater Samkshipta Itihas*, Pashchimbanga Rajya Pustak Parsad.

7) Dharma Kumar –*The Cambridge Economic History*. Orient Longman, New Delhi.

8) G. Kaushal—*Economic History of India (1757-1966),* Kalyani Publishers.

9) Irfan Habib— *Bharater Arthonity (1858-1914),* Pashchimbanga Rajya Pustak Parsad.

10) J. Krishnamurty—Occupational Structure, in Dharma Kumar (Editor), *The Cambridge Economic History of India,* Vol. II, 2005.

11) R C Dutt—*The Economic History of India under Early British Rule*. Routledge, London

12) S. Desai. & N. Bhalerao–*Economic History of India*, Himalaya Publishing House

13) Sumit Sarkar—*Modern India 1885-1947*. Pearson, India

14) Tirthankar Roy—*The Economic History of India (1857-1947),* Oxford University Press.

<table>
<tr><td>Programme/Class Degree: BA</td><td>Year: Third</td><td colspan="2">Semester: Fifth</td></tr>
<tr><td colspan="4">Subject: Economics (Minor)</td></tr>
<tr><td>Course Code:</td><td colspan="3">Course Title: Intermediate Macroeconomics</td></tr>
<tr><td>Course Objective</td><td colspan="3">• To provide an understanding of macroeconomic theories beyond the introductory level.
• To develop analytical skills to interpret macroeconomic problems and policies.
• To equip students from both Economics and non-Economics backgrounds with accessible yet comprehensive content.</td></tr>
<tr><td>Course Outcome</td><td colspan="3">By the end of this course, students will be able to:
• Explain and analyze key macroeconomic indicators.
• Understand macroeconomic models and their policy implications.
• Apply theoretical knowledge to real-world macroeconomic issues.</td></tr>
<tr><td>Credits:</td><td colspan="3">4 Credits</td></tr>
<tr><td>Max. Marks:</td><td colspan="3">100</td></tr>
<tr><td>Keywords</td><td colspan="3">Effective Demand, Consumption Function, Investment Multiplier, Liquidity Preference, Trade Cycle</td></tr>
<tr><td>Unit</td><td colspan="2">Topics</td><td>No. of Lectures</td></tr>
<tr><td>UNIT-I:
Theory of Income & Employment</td><td colspan="2">Classical Theory of Income and Employment: Key assumptions; Say's Law; Wage-Price Flexibility; Determination of Output and Employment; Neutrality of Money.

Keynesian Theory of Income & Employment: Aggregate Demand and Aggregate Supply, Effective Demand; Determination of Simple Keynesian Equilibrium; Paradox of Thrift.</td><td>10</td></tr>
<tr><td>UNIT-II:
Consumption & Investment Analysis</td><td colspan="2">Concept of Consumption Function; MPC & MPS; APC & APS; Factors influencing consumption expenditure; Life Cycle Hypothesis, Relative Income Hypothesis

Types of Investment: Autonomous & Induced; Determinants of Investment: MEC and MEI; Investment Multiplier; Acceleration Principle</td><td>10</td></tr>
</table>

UNIT-III: Money & Banking Sector	Functions of Money; Different components of Money; Keynesian Concept of Liquidity Preference; Quantity Theory of Money: Fisher’s and Cambridge Version. Commercial Banks: Functions with special emphasis on credit creation; Central Bank: Functions with special emphasis on credit control.	10
UNIT-IV: Trade Cycle & Inflation	Trade Cycle: Meaning and Characteristics; Hawtrey’s Theory of Trade Cycle; Measures to Control Trade Cycles. Inflation: Demand Pull and Cost Push Theories; Effects of Inflation on Production and Distribution; Anti-Inflationary Measures; Concept of Deflation and Stagflation.	10

Suggested Readings:

1. Lipsey & Chrystal, Principles of Economics, Oxford University Press
2. Mankiw N. Gregory, Principles of Economics, Centage Learning
3. Dornbusch, R., Fischer, S., & Startz, R., Macroeconomics. McGraw-Hill Education.
4. Jaydeb Sarkhel, Macroeconomic Theory, Book Syndicate Pvt. Ltd.
5. H.L. Ahuja, Advanced Economic Theory, S. Chand & Company Ltd.
6. M.L. Jhingan, Macro Economic Theory, Vrinda Publications Pvt. Ltd.
7. Sampat Mukherjee, Analytical Macroeconomics, New Central Book Agency (P) Ltd.
8. Sampat Mukherjee & Debesh Mukherjee, *Samakalin Arthavidya*, New Central Book Agency (P) Ltd.
9. Jaydeb Sarkhel, *Adhunik Arthanitir Bhumika*, Book Syndicate Pvt. Ltd.
10. Ajoy Kumar Nandi, *Samasthigoto Arthaniti*, B.B. Kundu Grandsons
11. Montosh Chakraborty, *Samastik Arthaniti*, Dhakeswary Library, Dhaka

<table>
<tr><td>Programme/
Class
Degree: BA</td><td>Year: Third</td><td>Semester: 6th</td></tr>
<tr><td colspan="3">Subject: Economics (Major), Paper-XIII</td></tr>
<tr><td>Course Code:</td><td colspan="2">Course Title: Economy of Tripura</td></tr>
<tr><td>Course Objective:</td><td colspan="2">• Provide basic knowledge on the Economy of Tripura to the learners
• Enable the students learn about the growth and development experiences of the state
• Help the students to analyse the various dimensions of Tripura's Economy</td></tr>
<tr><td>Course Outcome:</td><td colspan="2">• Enable the students to learn about the features and characteristics of the economy of Tripura
• Boost the knowledge base of the students and help them pursue their career goals and real life objectives
• Facilitate the learners to engage with the society in a more fruitful manner and lead to welfare of all and betterment of society
• Help those seeking employment through any kind of competitive examination as well as enable them to make informed choices in course of their working life</td></tr>
<tr><td>Credits:04</td><td colspan="2"></td></tr>
<tr><td>FullMarks:100</td><td colspan="2">MinimumPassMarks:40</td></tr>
<tr><td>Unit</td><td>Topics</td><td>No. of Lectures</td></tr>
<tr><td>I -
Historical Background, Population & Size of the Economy</td><td>Historical & Geographical background; An Economic History of Tripura
Population growth- after & before 1971; Trends in Demographic Parameters, Population Density; Sex Ratio; Life Expectancy; Fertility Rate; Mortality Rates; Work Force and Labour Force Participation, Occupational Distribution
Trend-wise & Sector-wise Composition of GSDP/ GSVA; Per capita income; Trends in per-capita NSDP</td><td>07</td></tr>
<tr><td>II
Sectoral Status</td><td>Agriculture: Land holding patterns, Land reforms, cropping pattern, Production and productivity of principal crops;
Diversification of the rural economy- Horticulture; Floriculture; Plantations; Fishery; Animal Husbandry/ Livestock; Non-farm activities; Challenges and prospects of the sector
Industry- Extent of Manufacturing; Hydrocarbon (Natural Rubber, Gas and Thermal) industry; Handlooms & Handicrafts; Status, challenges and prospects of the sector
Service Sector- Size and Composition; Tourism Resources and its potential; banking & financial sector activities; Major items of trade and commerce</td><td>12</td></tr>
<tr><td>III
State Finances & Infrastructure</td><td>Trends and Composition of Government Receipts; Impact of GST on the state revenues; Composition of Public expenditure and its implications; Sustainability of Government Borrowing; TFRBM Act; Fiscal Devolution to Local Bodies; Grants of Finance Commissions
Infrastructure- Status of Road, Rail, Air Connectivity, Status of Power & Telecommunications,
Human Development Indicators- extent of infrastructure of education & health</td><td>12</td></tr>
<tr><td>IV
Development</td><td>Economic Transition of Tripura- Rehabilitation of the Shifting Cultivators, Economy of TTAADC</td><td>09</td></tr>
</table>

experiences & Neighbourhood	Major Developmental Interventions- Gumti Hydel Project, Palatana Power Project, JICA, Indo-German Project, World Bank Aids Status of SDGs In Tripura Tripura and her neighbours- Volume & Composition of International Trade; Border Haats; Act East Policy and its implications	

Suggested Readings

1) Pravas Ranjan Bhattacharjee—*Economic Transition in Tripura (1993)*, Vikas Publishing House
2) Indraneel Bhowmik & Debajit Chakraborti—*Resources & Economy of Tripura (2011)*, EBH Publishers.
3) Kiran Shankar Chakraborty, Abhijit Sarkar & Bibhuti Bhushan Sarkar—*Agricultural Development in Tripura (2014)*, Akansha Publishing House.
4) Nani Ranjan Datta—*Economic Development of Tripura in the background of North East (2021)*, Omsons Publications
5) Govt. of Tripura- *Economic Review of Tripura* (Yearly issues)
6) NITI Aayog- *North Eastern Region District SDG Index*; https://www.niti.gov.in/sites/default/files/2021-08/NER_SDG_Index_NITI_26082021.pdf
7) Tripura Human Development Report (2005) published by Govt of Tripura
8) Anasu Basu Ray Chaudhury and Ambar Kumar Ghosh- *Situating India's Northeast in the Bay of Bengal Regional Architecture (2023)*, ORF
9) Salim Shah - *Agriculture in Tripura: Its Problems and Prospects* (2004), Progressive Publishers
10) Evaluation of State Finances of Tripura (Various Issues), Finance Commission Reports, GoI

<table>
<tr><td>Programme/Class
Degree: BA</td><td>Year: Third</td><td colspan="2">Semester: VI</td></tr>
<tr><td colspan="4">Subject : Economics (Major)</td></tr>
<tr><td>Course Code: EC114C</td><td colspan="3">Course Title: International Trade</td></tr>
<tr><td>Course Objective:</td><td colspan="3">• This course introduces the basics of international trade theory and examines the effects of international economic policies on domestic and world welfare.</td></tr>
<tr><td>Course Outcome:</td><td colspan="3">It aims to students to:
• acquaint with the principles and main theoretical concepts in international trade;
• familiarize students with the main issues in trade policy;
• demonstrate their understanding of the usefulness and problems related to topics in international trade, and demonstrate their critical understanding of trade policies.</td></tr>
<tr><td>Credits:</td><td colspan="3">04</td></tr>
<tr><td>Max. Marks: 100</td><td colspan="3">Min. Pass Marks: 40</td></tr>
<tr><td>Unit</td><td colspan="2">Topics</td><td>No. of Lectures</td></tr>
<tr><td>Unit-I:
Trade Theories</td><td colspan="2">Basic concepts: absolute advantage, comparative advantage, production possibility curve and marginal rate of transformation in production, community indifference curve and marginal rate of substitution in consumption, gains from trade - from exchange and from specialization, demand reversals, factor intensity reversals, offer curve and terms of trade.
Basis of Trade - Adam Smith and the absolute advantage of trade; David Ricardo and the comparative advantage of trade; Factor Abundance and comparative advantage in the Heckscher-Ohlin model of trade.</td><td>12</td></tr>
<tr><td>Unit-II: Balance of Payments</td><td colspan="2">Balance of Payments (BOP) – concept and components – Accounting method, Balance of Trade, Surplus and Deficit in the Balance of Payments – Autonomous and Accommodating items in the BOP, measures to correct deficit in the BOP, Devaluation – effects of Devaluation on BOP deficit, Balance of Payments theory</td><td>12</td></tr>
<tr><td>Unit-III: Foreign Exchange</td><td colspan="2">Foreign Exchange rate- Meaning - Exchange rate determination, Exchange Rate system- Fixed and Flexible Exchange rates, Spot Rate and Forward Rate, Foreign Exchange Risks - Hedging and Speculation, IMF: Functions and International Liquidity, Functions and Role of World Bank and WTO.</td><td>12</td></tr>
<tr><td>Unit-IV: Trade Policies</td><td colspan="2">Free Trade vs. Protection - Tariff barriers to trade, Effects of tariff - Optimum Tariff, Non-tariff barriers to trade -Quantitative trade restrictions, General Equilibrium analysis- Small and Large country case</td><td>12</td></tr>
<tr><td colspan="4">Suggested Readings (latest edition):</td></tr>
</table>

- Södersten, Bo and Geoffrey Reed: International Economics, Macmillan Press Ltd.
- Mannur, H. G: International Economics, Vikas Publishing House Pvt. Ltd.
- Heller, H. Robert: International Trade - Theory and Empirical Evidence, Prentice Hall of India Pvt. Ltd.
- Jhingan, M. L. and B. K. Jhingan: International Economics, Virinda Publications (P) Ltd.

<table>
<tr><td>Program/Course:
B.A./ B.Sc. Major</td><td colspan="2">Year: 3rd</td><td>Semester: VI</td></tr>
<tr><td colspan="4">Subject: Economics (Major)</td></tr>
<tr><td>Course Code:</td><td colspan="3">Course Title: Statistics – II</td></tr>
<tr><td>Course objective:</td><td colspan="3">• To teach the analysis of chance events in a logically sound manner
• To teach the model and variability of data on random variable.
• To teach the sample survey method from a large population and to establish representative results of small sample of a large population.
• (iv) To teach making estimates about population and testing hypothesis to draw conclusions about population.</td></tr>
<tr><td>Course Outcome:</td><td colspan="3">• The students will learn the analysis under uncertain situation.
• The course will help to the students to prepare the model using random variable.
• It may help to the students how to draw sample from the population.
• They will learn estimating, testing and conclusion about population.</td></tr>
<tr><td>Credits:</td><td colspan="3">4</td></tr>
<tr><td>Full Marks: 100</td><td colspan="2">Min. Passing Marks: 40</td><td></td></tr>
<tr><td>Unit</td><td colspan="2">Topics</td><td>No. of Lectures</td></tr>
<tr><td>Unit – I
Theory of probability</td><td colspan="2">Probability: Basic Concepts, Terminologies; Classical definition of probability with properties empirical definition of probability, subjective probability. Theorem of probability – theorem of total probability and compound probability: conditional and unconditional probability. Dependent and independent events. Bayes’ theorem of probability. Probability under the conditions of drawing with replacement and without replacement.</td><td>10</td></tr>
<tr><td>Unit – II
Probability Distribution</td><td colspan="2">Concept of Random Variable- Discrete and Continuous Random Variable- Probability Distribution of Random Variable- Probability Mass Function and Probability Density Function, Joint Probability Distribution, Cumulative Distribution Function</td><td>10</td></tr>
</table>

	Mathematical Expectation, Binomial Distribution; Poisson Distribution; Normal Distribution	
Unit – III Theory of Sampling and Sampling Distribution:	Definition of sample. Concept of sample survey method – advantages and disadvantages of sample survey method. Biases in sample survey method. Sources of biases. Sampling and non-sampling error. Definition and types of sampling - probability, non-probability and mixed sampling: their various methods - sampling distribution - expectation and standard error of sample mean, sample proportion. Four fundamental distribution – definition of Standard Normal distribution, Chi-square distribution, t-distribution and F-distribution.	10
Unit – IV Classical Inferential Statistics	Theory of estimation: Point estimation – method of point estimation, least square method, maximum likelihood method, properties of maximum likelihood estimator; criteria of good estimator – small sample and large sample; Interval estimation – concept of confidence limits; interval estimation of sample mean and proportion. Hypothesis testing: concept of null hypothesis and alternative hypothesis; Critical Region and Acceptance Region – Type I and Type II error, one tailed test; two-tailed test, level of significance of test, power of test, z-test, chi-square test, t test and F test.	10
Suggested References	1. Gun, Gupta and Das Gupta, *An Outline of Statistical Theory*, Vol. II., World Press Publication 2. N G Das, *Statistical Method*, Vol. II (Part II in new edition) 3. Robert V. Hogg, Elliots A Tanis and Jagan Mohan Rao, Probability and *Statistical Inference.* 4. S. C. Gupta and V. K. Kapoor, *Fundamentals of Mathematical Statistics*. 5. Morris Humburg, *Statistical Decision Making.*	

<table>
<tr><td>Programme/Class Degree:</td><td>Year: Third</td><td colspan="2">Semester: VI</td></tr>
<tr><td colspan="4">Subject: Economics (Major) Paper-XVI</td></tr>
<tr><td>Course Code:</td><td colspan="3">Course Title: Econometrics</td></tr>
<tr><td>Course Objective:</td><td colspan="3">• To introduce the students to the discipline of Econometrics
• To introduce the Method of Ordinary Least Squares to the students</td></tr>
<tr><td>Course Outcome:</td><td colspan="3">• The students get familiarized with the basics ideas of the discipline of Econometrics
• The students are able to comprehend the two-variable case of Simple Linear Regression Analysis
• On completion of the course the student will be able to estimate simple econometric models, Interpret those models, apply various tests of significance and detect violations of classical assumptions.</td></tr>
<tr><td>Credits:</td><td colspan="3">04</td></tr>
<tr><td>Max. Marks: 100</td><td colspan="3">Min. Passing Marks: 40</td></tr>
<tr><td>Unit</td><td colspan="2">Topics</td><td>No. of Lectures</td></tr>
<tr><td>UNIT-I: Introduction</td><td colspan="2">Definition and Scope of Econometrics; Methodology of econometrics;
The nature of Regression Analysis; Historical origin and modern interpretation of the term ‘Regression’; Terminology and notation; the nature and sources of data for Econometric Analysis;
Population Regression Function (PRF); Sample Regression Function (SRF) and Population Regression Function (PRF), Significance of Stochastic disturbance component</td><td>8</td></tr>
<tr><td>UNIT-II: Two- Variable Classical Linear Regression Model</td><td colspan="2">Classical Linear Regression Model, Assumptions underlying the Method of Least Squares, Properties of Least Squares Estimators, BLUE properties - Measure of Goodness of fit - Analysis of Variance (ANOVA), Testing of Hypothesis of the Regression Parameters</td><td>10</td></tr>
<tr><td>UNIT-III: Three - Variable Classical Linear Regression Model</td><td colspan="2">Three Variable Linear Regression Model, Assumptions, Method of Least Squares Estimation, BLUE property, Goodness of fit (in terms of R^2, adjusted R^2 and F statistic), Analysis of Variance (ANOVA). Testing of Hypothesis of the Regression Parameters</td><td>12</td></tr>
<tr><td></td><td colspan="2">Multicollinearity - Consequences, Detection (Variance Inflationary</td><td>10</td></tr>
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<tr><td>UNIT-IV: Violation of Classical Assumptions</td><td>Factor (VIF)) and Way out
Heteroscedasticity - Consequences, Detection (Lagrange Multiplier test) and Way out
Auto-correlation - Consequences, Detection (Durbin-Watson Test) and Way out</td><td></td></tr>
<tr><td colspan="3">Suggested Readings:
▪ D. Gujarati, Basic Econometrics, McGraw Hill Higher Education.
▪ G.S.Maddala, Introduction to Econometrics, John Wiley & Sons.
▪ Joydeb Sarkhel, Santosh Kumar Dutta, Introduction to Econometrics, Book Syndicate Pvt. Ltd.
▪ Wooldridge, Jeffrey M. Introductory Econometrics – A Modern Approach, CENGAGE Learning
▪ Green, W.H. (2011) Econometric Analysis, 7th Edition, Prentice Hall</td></tr>
<tr><td colspan="3">Suggested Continuous Evaluation Methods: Assignment / Test / MCQ
Assignment /Test/Quiz(MCQ)/Presentations</td></tr>
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Programme/Class Degree: BA	Year: Third	Semester: VI
Subject: Economics (Minor)- VI		
CourseCode:	**Course Title: Economics of NER & Tripura**	
Course Objectives	• Provide knowledge on the various facets of the Economy of the NER of India • Enable the students to learn to analyse the growth and development experiences of the region • Highlight the different prospects which can be explored for future	
Course Outcome	• Upon completion of this course, students will be able to: • Demonstrate knowledge of the key sectors of the Indian economy • Analyse the impact of economic reforms • Identify and analyse current economic issues and challenges • Articulate informed opinions on economic policy matters • DevelopcriticalthinkingandanalyticalskillsinthecontextofIndianeconomicissues	
Credits: 04		
Max.Marks:100	Min.PassingMarks:40	
Unit	**Topics**	**No. of Lectures**
UNIT-I: North-East as a Region	Characteristics of the Economy of the North-East India; NEC- role, aims and objectives, critical evaluation; MDONER- role, aims and objectives, critical evaluation Natural Resources- Minerals, Forests, Water & their uses, challenges & prospects Human Resources- Size & growth of Population, Density, Rural-urban ratio, Occupational Distribution, Sex ratio, Age-structure, Life Expectancy, Infant Mortality, Literacy Trend & Composition of the State Domestic Product and per-capita income of different states; reasons for slow growth	9
UNIT-II: Agriculture & Industry	Primary Sector in the NER- Extent & Importance, Production & Productivity of Major Crops, Land Use & Cropping pattern; problems & challenges; Shifting Cultivation & transition Secondary Sector in the NER- Role of Organised and Unorganised Sectors; Extent of Industrial Development, Industrial Policies for NER in the post-reform period; Challenges & problems faced; suggestions to overcome them, SSIs & MSMEs in NER	10
UNIT-III: Emerging Sectors	Tertiary Sector in the NER- Trade & Commerce; Tourism- present status, prospects & problems State of Infrastructure in North-East- Power, Transport, Communication, Banking & Finance- Performance, prospects & challenges; RRBs in NER; International Trade from NER- Status & Prospects of Border-trade with neighbouring countries, Act East Policy- aspects; Border Haats Health & Education- State-wise status SDGs in the NER	13

UNIT-IV: Economy of Tripura	Historical & Geographical background; Economic History of Tripura Developmental Experiences-Growth of the State Economy and Sectors, TTAADC Developmental Interventions- Gumti Hydel Project, Palatana Power Project, JICA, Indo-German Project, World Bank Aids	8

Suggested Readings:

1. Deepak Mishra &Vandana Upadhyay–"Rethinking Economic Development in Northeast India- The Emerging Dynamics" (2017), Routledge
2. Jalad Baran Ganguly– "An Economic History of North East India" (2006), Himalaya Publishing House, Mumbai
3. Hans P Brunner–"North East India: Local Development & Global Markets" (2010),Sage
4. KR Dikshit & Jutta K Dikshit- "North East India: Land People and Economy" (2014), Springer
5. Atul Sarma & Saswati Choudhury- "Mainstreaming the Northeast in India's North East Policy"(2018), Springer
6. Salim Shah & Dilip Kumar Rana- "Development of Northeast India- Emerging Policy Issues"(2022), EBH Publishers.
7. Sumi Krishna- "Agriculture and Changing Environment in Northeastern India" (2013)- Routledge
8. Anasua Basu Ray Chaudhury and Ambar Kumar Ghosh- *Situating India's Northeast in the Bay of Bengal Regional Architecture (2023)*, ORF
9. Indraneel Bhowmik & Debajit Chakraborti—*Resources & Economy of Tripura (2011)*, EBH Publishers.
10. NITI Aayog- *North Eastern Region District SDG Index*; https://www.niti.gov.in/sites/default/files/2021-08/NER_SDG_Index_NITI_26082021.pdf
11. Rakhee Bhattacharya- " Developmentalism as a Strategy"(2019), Sage
12. Reports on State Finances by RBI
13. Database on Indian Economy- Reserve Bank of India