

SCHEME OF EXAMINATION

&

DETAILED SYLLABUS

For

BA HONOURS (ECONOMICS)

FACULTY OF ARTS

BACHELOR OF ARTS HONOURS (ECONOMICS)
(3 yrs Programme)

First Semester					
Paper Code	SUBJECTS	Credit	Internal Marks	External Marks	Total
BAECO101	Mathematical Methods for Economics I	4	30	70	100
BAECO102	Introductory Micro-economics	4	30	70	100
BAECO103	Arts of Communication	4	30	70	100
BAECO104	Economic History of India	4	30	70	100
BAECO105	English-I	3	30	70	100
	Total	19	150	350	500

Second Semester					
Paper Code	SUBJECTS	Credit	Internal Marks	External Marks	Total
BAECO201	Mathematical Methods for Economics II	4	30	70	100
BAECO202	Introductory Macroeconomics	4	30	70	100
BAECO203	Environmental Science	4	30	70	100
BAECO204	Global Political Economy	4	30	70	100
BAECO205	Hindi-I	3	30	70	100
	Total	19	150	350	500

Third Semester					
Paper Code	SUBJECTS	Credit	Internal Marks	External Marks	Total
BAECO301	Intermediate Micro- economics I	4	30	70	100
BAECO302	Intermediate Macro- economics I	4	30	70	100
BAECO303	Statistical Methods for Economics	4	30	70	100
BAECO304	Data Analysis	4	30	70	100
BAECO305	Money and Banking	4	30	70	100
	Total	20	150	350	500

Fourth Semester					
Paper Code	SUBJECTS	Credit	Internal Marks	External Marks	Total
BAECO401	Intermediate Micro-economics II	4	30	70	100
BAECO402	Intermediate Macro-economics II	4	30	70	100
BAECO403	Introductory Econometrics	4	30	70	100
BAECO404	Elective (Choose any one)	4	30	70	100
BAECO404A	Research Methodology				
BAECO404B	Contemporary Economic Issues				
BAECO405	Public Finance	4	30	70	100
	Total	20	150	350	500

Fifth Semester					
Paper Code	SUBJECTS	Credit	Internal Marks	External Marks	Total
BAECO501	Indian Economy I	4	30	70	100
BAECO502	Development Economics I	4	30	70	100
BAECO503	Elective (Choose any two)	8	60	140	200
BAECO03A	Game Theory				
BAECO503B	International Trade				
BAECO503C	Public Economics				
BAECO503D	Financial Economics				
BAECO503E	Applied Econometrics				
BAECO503F	Economic History of India (1857-1947)				
BAECO503G	Political Economy I				
BAECO504	Soft Skills and Personality Enhancement	4	30	70	100
	Total	20	150	350	500

Sixth Semester					
Paper Code	SUBJECTS	Credit	Internal Marks	External Marks	Total
BAECO601	Indian Economy II	4	30	70	100
BAECO602	Development Economics II	4	30	70	100
BAECO603	Elective (Choose any Two)	8	60	140	200
BAECO603A	Economics of Health and Education				
BAECO603B	Environmental Economics				
BAECO603C	Open Economy Macroeconomics				
BAECO603D	Money and Financial Markets				
BAECO603E	Comparative Economic Development(1850-1950)				
BAECO603F	Law and Economics				
BAECO603G	Political Economy II				
	Total	16	120	280	400

Mathematical Methods for Economics I (BAECO-101)

Course Objective

This is the first of a compulsory two-course sequence. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

Course Learning Outcomes

The course hones and upgrades the mathematical skills acquired in school and paves the way for the second semester course Mathematical Methods in Economics II. Collectively, the two papers provide the mathematical foundations necessary for further study of a variety of disciplines including economics, statistics, computer science, finance and data analytics. The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making. These tools are necessary for anyone seeking employment as an analyst in the corporate world. The course additionally makes the student more logical in making or refuting arguments.

Unit 1

Preliminaries Logic and proof techniques; sets and set operations; relations; functions and their properties; number systems

Unit 2

Functions of one real variable Graphs; elementary types of functions: quadratic, polynomial, power, exponential, logarithmic; sequences and series: convergence, algebraic properties and applications;

Continuous functions: characterizations, properties with respect to various operations and applications;

Differentiable functions: characterizations, properties with respect to various operations and applications;
Second and higher order derivatives: properties and applications

Unit 3

Single-variable optimization Geometric properties of functions: convex functions, their characterizations and applications; local and global optima: geometric and calculus-based characterizations, and applications

Unit 4

Linear algebra Vector spaces: algebraic and geometric properties, scalar products, norms, orthogonality; linear transformations: properties, matrix representations and elementary operations; systems of linear equations: properties of their solution sets; determinants: characterization, properties and applications

References

1. Sydsaeter, K., Hammond, P. (2002). *Mathematics for economic analysis*. Pearson Educational.

Introductory Microeconomics (BAECO-102)

Course Objective

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Course Learning Outcomes

The course introduces the students to the first course in economics from the perspective of individual decision making as consumers and producers. The students learn some basic principles of microeconomics, interactions of supply and demand, and characteristics of perfect and imperfect markets.

Unit 1

Introduction What is microeconomics? Scope and method of economics; the economic problem: scarcity and choice; the concept of opportunity cost; the question of what to produce, how to produce and how to distribute output; science of economics; institutions for allocating resources; the basic competitive model; prices, property rights and profits; incentives and information; rationing; positive versus normative analysis

The scientific method; the role of assumptions; models and mathematics; why economists sometimes disagree

Interdependence and gains from trade; specialization and trade; absolute advantage; comparative advantage and trade

Unit 2

Supply and demand: How markets work, markets and welfare Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets

Application to international trade; comparison of equilibrium with and without trade, the winners and losers from trade; effects of tariffs and quotas; benefits of international trade; some arguments for restricting trade

Unit 3

The Households The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; labor supply and savings decision; choice between leisure and consumption

Unit 4

The firm and perfect market structure Behaviour of profit maximizing firms and the production process; short-run costs and output decisions; costs and output in the long-run

Unit 5

Imperfect Market Structure Monopoly and anti-trust policy; government policies towards competition; imperfect competition

Unit 6

Input Markets Labour and land markets: Basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand

curves; shifts in input demand curves; competitive labour markets; labour markets and public policy

References

1. Bergheim, B., Whinstone, M. (2009). *Microeconomics*. Tata McGraw-Hill.
2. Manikin, N. (2007). *Economics: Principles and applications, 4th ed.* Engage Learning.

Arts of Communication (BAECO-103)

Unit -1 Fundamentals of Technical Communication:

Technical Communication: Features; Distinction between General and Technical Communication; Language as a tool of Communication; Dimensions of Communication: Reading & comprehension; Technical writing: sentences; Paragraph; Technical style: Definition, types & Methods; The flow of Communication: Downward; upward, Lateral or Horizontal; Barriers to Communication.

Unit - II Forms of Technical Communication:

Technical Report: Definition & importance; Thesis/Project writing: structure & importance; synopsis writing: Methods; Technical research Paper writing: Methods & style; Seminar & Conference paper writing; Key-Note Speech: Introduction & Summarization; Expert Technical Lecture: Theme clarity; Analysis & Findings; 7 Cs of effective business writing: concreteness, completeness, clarity, conciseness, courtesy, correctness, consideration.

Unit - III Technical Presentation: Strategies & Techniques

Presentation: Forms; interpersonal Communication; Class room presentation; style; method; Individual conferencing: essentials: Public Speaking: method; Techniques: Clarity of substance; emotion; Humors; Modes of Presentation; Overcoming Stage Fear: Confident speaking; Audience Analysis & retention of audience interest; Methods of Presentation: Interpersonal; Impersonal; Audience Participation: Quizzes & Interjections.

Unit - IV Technical Communication Skills:

Interview skills; Group Discussion: Objective & Method; Seminar/Conferences Presentation skills: Focus; Content; Style; Argumentation skills: Devices: Analysis; Cohesion & Emphasis; Critical thinking; Nuances: Exposition narration & Description; effective business communication competence: Grammatical; Discourse competence: combination of expression & conclusion; Socio-linguistic competence: Strategic competence: Solution of communication problems with verbal and non verbal means.

Unit - V Kinesics & Voice Dynamics:

Kinesics: Definitions; importance; Features of Body Language; Voice Modulation: Quality, Pitch; Rhythm; intonation; Pronunciation; Articulation; stress & accent; Linguistic features of voice control: Vowel & Consonant Sounds.

Reference Books

1. Technical Communication – Principles and Practices by Meenakshi Raman & Sangeeta Sharma, Oxford Univ. Press, 2007, New Delhi.
2. Business Correspondence and Report Writing by Prof. R.C. Sharma & Krishna Mohan, Tata McGraw Hill & Co. Ltd., 2001, New Delhi.
3. Practical Communication: Process and Practice by L.U.B. Pandey; A.I.T.B.S. Publications India Ltd.; Krishan Nagar, 2014, Delhi.
4. Modern Technical Writing by Sherman, Theodore A (et.al); Apprentice Hall; New Jersey, U.S.
5. A Text Book of Scientific and Technical Writing by S.D. Sharma; Vikas Publication, Delhi.
6. Skills for Effective Business Communication by Michael Murphy, Howard University, U.S.
7. Business Communication for Managers by Payal Mehra, Pearson Publication, Delhi.

Course Outcomes

1. Students will be enabled to **understand** the nature and objective of Technical Communication relevant for the work place as Engineers.
2. Students will **utilize** the technical writing for the purposes of Technical Communication and its exposure in various dimensions.
3. Students would imbibe inputs by presentation skills to **enhance** confidence in face of diverse audience.
4. Technical communication skills will **create** a vast know-how of the application of the learning to promote their technical competence.
5. It would enable them to **evaluate** their efficacy as fluent & efficient communicators by learning the voice-dynamics.

Economic History of India (BAECO-104)

Course Objective

This course analysis key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the mechanisms that linked economic development in India to the compulsions of colonial rule.

Course Learning Outcomes

The course exposes the students to understanding the intricacies of India's economic, political and social developments both in the past and present times. It develops analytical skills, and will be useful in a variety of careers in academics, research, journalism, private sector and government.

Unit 1

Colonial India: Background and introduction

Unit 2

Macro trends in national income, population, labor and occupational structure

Unit 3

Agriculture, agrarian structure and land relations

Unit 4

Railways and Industry

Unit 5

Economy and state in the imperial context

References

Some readings may be updated from year to year.

1. Chatterjee, B. (1992). *Trade, tariffs and empire*. Oxford University Press.
2. Chaudhary, L., Gupta, B., Roy, T., Swami, A. (eds.) (2016). *A new economic history of colonial India*. Chapters 4, 7, 9. Rout ledge.
3. Guha, S. (1991). Mortality decline in early 20th century India. *Indian Economic and Social History Review*, 28(4), 371-87.
4. Habib, I. (2006). *Indian economy 1858-1914: A people's history of India*. Chapter 3. Tulika.
5. Klein, I. (1984). When rains fail: Famine relief and mortality in British India. *Indian Economic and Social History Review*, 21 (2), 185-214.
6. Kumar, D. (ed.) (1982). *Cambridge economic history of India, c.1751-c.1970*. 2. Chapters 8, 12. Orient Longman.
7. Morris, M. (1965). *Emergence of an industrial labour force in India*. Chapter 11. Oxford University Press.
8. Parthasarathy, P. (2011). *Why Europe grew rich and Asia did not: Global economic divergence, 1600-1850*. Chapters 2, 8. Cambridge University Press.
9. Parthasarathi, P. (2009). Historical issues of deindustrialization in nineteenth century South India. In T. Roy, G. Riello (eds.): *How India clothed the world: The world of South Asian textiles, 1500-1850*. Brill.
10. Roy, T. (2018). *A business history of India: Enterprise and the emergence of capitalism from 1700*. Chapters 4, 5. Cambridge University Press.
11. Roy, T. (2011). *The economic history of India 1857-1947, 3rd ed.* Chapters 3, 11. Orient Longman.
12. Subramanian, L. (2010). *History of India 1707-1857*. Chapter 4. Orient

Blackswan.

13. Tomlinson, B. (1975). India and the British Empire 1880-1935. *The Indian Economic and Social History Review*, 12(14), 337-380.

14. Washbrook, D. (2012). The Indian economy and the British empire. In D. Peers, N. Gooptu (eds.): *India and the British empire*. Oxford University Press.

BAECO		Total Marks: 100
Semester-I		Internal Marks: 30
BAECO105		External Marks:70
English-I		No. of Hours: 48
		Total Credits:
Unit No.	Details	Nos. of Hours
I	(I) K.Bharatlyer 'The Ideals of Indian Art' (II) Rabindranath Tagore 'Where the mind is without fear'	10
II	(I) 'Silence: The court is in session'	08
III	(I) Nings And Importance Of Etiquettes	10
IV	(I) Sentence Structure; Subject, Predicate, SVO, SVOO (II) Verb (III) Noun (IV) Pronoun (V) Articles	10
V	(I) Letter-Writing: Formal letters, Informal letters, elements of letter writing, format of formal letter writing. Writing skills (II) Paragraph Writing	10
Reference Books: 1.English language & Indian Culture by M P Granth Academy.		

MATHEMATICAL METHODS FOR ECONOMICS II (BAECO-201)

Course Objective

This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

Course Learning Outcomes

The course provides the mathematical foundations necessary for further study of a variety of disciplines including postgraduate economics, statistics, computer science, finance and data analytics. The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making for managers and entrepreneurs alike. These tools are necessary for anyone seeking employment as an analyst in the corporate world.

Unit 1

Functions of several real variables Geometric representations: graphs and level curves; differentiable functions: characterizations, properties with respect to various operations and applications; second order derivatives: properties and applications; the implicit function theorem, and application to comparative statics problems; homogeneous and homothetic functions: characterizations and applications

Unit 2

Multivariate optimization Convex sets; geometric properties of functions: convex functions, their characterizations, properties and applications; further geometric properties of functions: quasiconvex functions, their characterizations, properties and applications; unconstrained optimization: geometric characterizations, characterizations using calculus and applications; constrained optimization with equality constraints: geometric characterizations, Lagrange characterization using calculus and applications; properties of value function: envelope theorem and applications

Unit 3

Linear programming Introduction, graphical solution, matrix formulation, duality, economic interpretation

Unit 4

Integration, differential equations, and difference equations Definite integrals, indefinite integrals and economic applications; first order difference equations, equilibrium and its stability; first order differential equations, phase diagrams and stability

References

1. Sydsaeter, K., Hammond, P. (2002). *Mathematics for economic analysis*. Pearson Educational.

Introductory Macroeconomics (BAECO-202)

Course Objective

This is the first module in a three-module sequence that introduces students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like GDP, savings, investment, money, inflation, and the balance of payments. It also introduces students to simple analytical frameworks (e.g., the IS-LM model) for determination of equilibrium output.

Course Learning Outcomes

This course aims to develop the broad conceptual frameworks which will enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their interlink ages. It will also allow them to critically evaluate various macroeconomic policies in terms of a coherent logical structure.

Unit 1

Introduction to macroeconomics and national income accounting Basic issues studied in macroeconomics: Measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; national income accounting for an open economy; balance of payments: current and capital accounts

Unit 2

Money Functions of money; quantity theory of money; determination of money supply and demand; credit creation; tools of monetary policy

Unit 3

Inflation Inflation and its social costs; hyperinflation

Unit 4

The closed economy in the short run Classical and Keynesian systems; simple Keynesian model of income determination; IS-LM model; fiscal and monetary multipliers

References

1. Abel, A., Bernanke, B. (2016). *Macroeconomics, 9th ed.* Pearson Education.
2. Blanchard, O. (2018). *Macroeconomics, 7th ed.* Pearson Education.
3. Dornbusch, R., Fischer, S., Startz, R. (2018). *Macroeconomics, 12th ed.* McGraw-Hill.
4. Jones, C. (2016). *Macroeconomics, 4th ed.* W. W. Norton.
5. Mankiw, N. (2016). *Macroeconomics, 9th ed.* Worth Publishers.

Environmental Science (BAECO-203)

UNIT – I

General: Environmental segments, environmental degradation, environmental impact assessment.

Concept of Ecosystem: Fundamental of Ecology and Ecosystem, components of ecosystem, food-chain, food-web, tropic levels, energy flow, cycling of nutrients, major ecosystem types (forest, grass land and aquatic ecosystem).

UNIT – II

Air Pollution: Atmospheric composition, energy balance, classification of air pollutants, source and effect of pollutants – Primary (CO, Sox, NO_x, particulates, hydrocarbons), Secondary [photochemical smog, acid rain, ozone, PAN (Proxy Acetyl Nitrate)], green house effect, ozone depletion, atmospheric stability and temperature inversion, Techniques used to control gaseous and particulate pollution, ambient air quality standards.

UNIT – III

Water Pollution: Hydrosphere, natural water, classification of water pollutants, trace element contamination of water, sources and effect of water pollution, types of pollutants, determination and significance of D.O., B.O.D., C.O.D. in waste water, Eutrophication, methods and equipment used in waste water treatment preliminary, secondary and tertiary.

UNIT – IV

Land Pollution & Noise Pollution: Lithosphere, pollutants (agricultural, industrial, urban waste, hazardous waste), their origin and effect, collection of solid waste, solid waste management, recycling and reuse of solid waste and their disposal techniques (open dumping, sanitary land filling, thermal, composting).

Noise Pollution: Sources, effect, standards and control.

UNIT – V

Environmental Biotechnology: Definition, current status of biotechnology in environmental protection, bio-fuels, bio-fertilize, bio-surfactants, bio-sensor, bio-chips, bio-reactors.

Pollution Prevention through Biotechnology: Tannery industry, paper and pulp industry, pesticide industry, food and allied industry.

Text Books

1. Environment and Ecology by Piyush Kant Pandey and Dipti Gupta (Sum India Publication)
2. A Textbook of Environmental Chemistry and Pollution Control by S.S. Dara (S. Chand and Company)

Reference Books:

1. Masters, G.M. Introduction to Environment Engineering and Science (Prentice Hall of India).
2. Environmental Chemistry by A.K. Dey (Eastern Ltd.).
3. Environmental Chemistry by B.K. Sharma (Krishna Prakashan).
4. Nobel B.J. Environmental Science (Prentice Hall of India-1987).
5. Environmental Biotechnology by S.N. Jogdand (Himalaya Publishing House).
6. Introduction to Environmental Biotechnology by A.K. Chatterji (Prentice Hall of India).

Global Political Economy (BAECO-204)

Course Objective

This generic elective course introduces students to the contemporary structures, trends and developments in the Global Economy through a Political Economy lens. It explores the period since the end of Second World War up to recent global economic crisis – from the ‘Golden age of capitalism’ to the ‘neoliberal’ shift. It particularly explores changes in the organization of production and corporate structure along with changes in labor processes and labor regimes and also the increasing dominance of finance in the contemporary world. It also examines the shifts in the nature, scope and ideology of the state under globalization.

Course Learning Outcomes

This course enables students who have not studied economics at the undergraduate level to develop a critical understanding of the contemporary global economy. It enables them to form a more informed view of the world we inhabit by analyzing some of the economic trends and developments over the last five or six decades. As the economy is a crucial sphere both of social life in general and the world of work in particular, an analytical exposure to the structures, institutions and processes of the global economy will thus enrich their comprehension of the contemporary world. With such a comprehension, students from all backgrounds will thus be better prepared to face the professional world and can use the knowledge base of this course for facing the challenges of group discussions and general interviews for corporate or civil service jobs. Students of other social sciences and humanities, who intend to pursue higher studies and research, will also immensely benefit from this course by being able to develop an interdisciplinary understanding of basic economic structures and processes, which are often crucial to the understanding of their core subjects.

Unit 1

Introduction and overview: Perspectives on political economy of globalization with a historical overview

Unit 2

Changing dynamics of capitalist production, organizational forms and labour processes: Fordist and post-Fordist production regimes; multinational corporations – evolution, structural form and dynamics; global value chains and production networks; the changing nature of employment, job security and labour rights in a globalised economy

Unit 3

The political economy of global trade: Structure and institutions of the international trade regime

Unit 4

The role of finance in the globalised economy: financialisation of the global economy – trends, instruments, features and consequences

Unit 5

The state in the era of globalization: Globalization and the limits of the welfare and developmental states; the neoliberal state.

Unit 6

Global economic instability and crisis: The 2008 global economic crisis – prelude, proximate and long term causes; possibility of recurring crises.

References

1. Bhaduri, A. (2002). Nationalism and economic policy in the era of globalization. In D. Nayyar (ed.): *Governing globalization: Issues and institutions*. Oxford University Press.
2. Chang, D. (2009). Informalising labour in Asia's global factory. *Journal of Contemporary Asia*, 39, 161-179.
3. Dore, R. (2008). Financialisation of the global economy. *Industrial and Corporate Change*, 17, 1097-1112.
4. Harvey, D. (2005). *A brief history of neoliberalism*. Introduction, Chapters 1-3. Oxford University Press.
5. Hymer, S. (1975). The multinational corporation and the law of uneven development. In H. Radice (ed.): *International firms and modern imperialism*. Penguin Books.
6. Nayyar, D. (2003). Globalization and development. In H.-J. Chang (ed.): *Rethinking development economics*. Anthem Press.
7. Reddy, N. (2003). Economic globalization, past and present: The challenges to labour. In K. Jomo, K. Jin (eds): *Globalization and its discontents, revisited*. Tulika Books.
8. Rodrik, D. (2011). *The globalization paradox: Why global markets, states and democracy can't coexist*. Oxford University Press.
9. Thun, E. (2011). The globalization of production. In J. Ravenhill (ed.): *Global political economy*. Chapter 11. Oxford University Press.
10. Tonkiss, F. (2008). *Contemporary economic sociology: Globalisation, production, inequality*. Chapter 4. Routledge.
11. Vakulabharanam, V. (2009). The recent crisis in global capitalism: Towards a Marxian understanding. *Economic and Political Weekly*, 44, 144-150.
12. Varoufakis, Y. (2011). *The global Minotaur. America, the true origins of the financial crisis and the future of the world economy*. Zed Books.
13. Winham, G. (2011). The evolution of the global trade regime. In J. Ravenhill (ed.): *Global political economy*. Oxford University Press.

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Intermediate Microeconomics I (BAECO-301)

Course Objective

The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts. This course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

Course Learning Outcomes

The course trains the students of Economics about the basic elements of consumer theory and production theory and the functioning of perfectly competitive market. This course aims to give students a solid grasp of microeconomic analysis at the intermediate-level using mathematical techniques where appropriate.

Unit 1

Consumer theory. Preference; utility; budget constraint; choice; demand; Slutsky equation; buying and selling; choice under risk and intertemporal choice; revealed preference

Unit 2

Production, costs and perfect competition Technology; isoquants; production with one and more variable inputs; returns to scale; short run and long run costs; cost curves in the short run and long run; review of perfect competition

References

1. Bernheim, B., Whinston, M. (2009). *Microeconomics*. Tata McGraw- Hill.
2. Snyder, C., Nicholson, W. (2010). *Fundamentals of microeconomics*. Cengage Learning.
3. Varian, H. (2010). *Intermediate microeconomics: A modern approach, 8th ed.* W. W. Norton.

Intermediate Macroeconomics I (BAECO-302)

Course Objective

This is the second module of a three-module sequence on Macroeconomics. This course introduces students to formal modeling of the macro economy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces students to various micro-founded theories of macro behavior, e.g., consumption and investment behaviour of households and the demand for money generated in the household sector.

Course Learning Outcomes

This course enables students to analyze the macroeconomic performance of various countries using formal analytical tools. It also allows them to evaluate important macroeconomic policies and their implications.

Unit 1

The labor market Wage determination; wages, prices and employment; natural rate of unemployment; from employment to output

Unit 2

Aggregate demand and aggregate supply curves Derivation of aggregate demand and aggregate and supply curves; interaction of aggregate demand and supply to determine equilibrium output, price level and employment

Unit 3

Inflation, unemployment and expectations Phillips curve; adaptive and rational expectations; policy ineffectiveness debate

Unit 4

Microeconomic foundations Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; lifecycle and permanent income hypotheses; rational expectations and random walk of consumption expenditure

Investment: determinants of business fixed investment; residential investment and inventory investment

Demand for money

References

1. Abel, A., Bernanke, B. (2016). *Macroeconomics, 9th ed.* Pearson Education.
2. Blanchard, O. (2018). *Macroeconomics, 7th ed.* Pearson Education.
3. Branson, W. (2013). *Macroeconomics: Theory and policy, 3rd ed.* East West Press.
4. Dornbusch, R., Fischer, S., Startz, R. (2018). *Macroeconomics, 12th ed.* McGraw-Hill.
5. Jones, C. (2016). *Macroeconomics, 4th ed.* W. W. Norton.
6. Mankiw, N. (2016). *Macroeconomics, 9th ed.* Worth Publishers.

Statistical Methods for Economics (BAECO-303)

Course Objective

The course teaches students the basics of probability theory and statistical inference. It sets a necessary foundation for the econometrics courses within the Honors programme. The familiarity with probability theory will also be valuable for courses in advanced microeconomic theory.

Course Learning Outcomes

At the end of the course, the student should understand the concept of random variables and be familiar with some commonly used discrete and continuous distributions of random variables. They will be able to estimate population parameters based on random samples and test hypotheses about these parameters. An important learning outcome of the course will be the capacity to analyze statistics in everyday

life to distinguish systematic differences among populations from those that result from random sampling.

Unit 1

Introduction and overview The distinction between populations and samples and between population parameters and sample statistics

Unit 2

Elementary probability theory Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence

Unit 3

Random variables and probability distributions Defining random variables; probability distributions; expected values and functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, exponential, Poisson, hypergeometric and Normal random variables)

Unit 4

Random sampling and jointly distributed random variables Density and distribution functions for jointly distributed random variables; computing expected values of jointly distributed random variables; covariance and correlation coefficients

Unit 5

Point and interval estimation Estimation of population parameters using methods of moments and maximum likelihood procedures; properties of estimators; confidence intervals for population parameters

Unit 6

Hypothesis testing Defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests for comparing parameters from two samples

References

1. Devore, J. (2012). *Probability and statistics for engineers, 8th ed.* Engage Learning.
2. Larsen, R., Marx, M. (2011). *An introduction to mathematical statistics and its applications.* Prentice Hall.
3. Miller, I., Miller, M. (2017). *J. Freund's mathematical statistics with applications, 8th ed.* Pearson.

Data Analysis (BAECO-304)

Course Objective

This is a skill enhancement course for data analysis. The students will be given hands on training on using statistical and computing software to better visualize and understand data concepts. The course is to be delivered through 2 classroom lectures and 4 computer lab classes per week.

Course Learning Outcomes

The course will use data simulations and publicly available data sources to help students learn about data types, their organization and visual representation. They will learn how to compute summary statistics and do some basic statistical inference.

Unit 1

Introduction to the course: How can the representation and analysis of data help us study real-world problems. Publicly available data sets

Unit 2

Using Data: Available statistical software, steps in data storage, organization and cleaning

Unit 3

Visualization and Representation: Alternative forms of presenting summarizing and presenting data

Unit 4

Simple estimation techniques and tests for statistical inference

References

1. Levine, D., Stephan, D., Szabat, K. (2017). *Statistics for managers using Microsoft Excel, 8th ed.* Pearson.
2. Tattar, P., Ramaiah, S., Manjunath, B. (2018). *A course in statistics with R.* Wiley.

Money and Banking (BAECO-305)

Course Objective

This course highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

Course Learning Outcomes

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy.

Unit 1

Money Concept, functions, measurement; theories of money supply determination

Unit 2

Financial institutions, markets, instruments and financial innovations Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises

Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations

Unit 3

Interest rates Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India

Unit 4

Banking system Balance sheet and portfolio management.

Indian banking system: Changing role and structure; banking sector reforms.

Unit 5

Central banking and monetary policy Functions, balance sheet; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India

References

1. Bhole, L., Mahukud, J. (2017). *Financial institutions and markets, 6th ed.* Tata McGraw-Hill.
2. Fabozzi, F., Modigliani, F., Jones, F., Ferri, M. (2010). *Foundations of financial markets and institutions, 4th ed.* Pearson Education.
3. Khan, M. (2015). *Indian financial system, 9th ed.* Tata McGraw-Hill.
4. Mishkin, F., Eakins, S. (2017). *Financial markets and institutions, 8th ed.* Pearson.
5. Various latest issues of RBI Bulletins, Annual Reports, Reports on Currency and Finance, and Reports of the Working Group, IMF Staff Papers.

Intermediate Microeconomics II (BAECO-401)

Course Objective

This course is a sequel to Intermediate Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare, imperfect markets and topics under information economics.

Course Learning Outcomes

This course helps the students to understand efficiency of markets and the environment where the standard market mechanism fails to generate the desirable outcomes. The issues of market imperfection and market failures are important building blocks of this course.

Unit 1

General equilibrium, efficiency and welfare Equilibrium and efficiency under pure exchange and production; overall efficiency and welfare economics

Unit 2

Market structure and game theory Monopoly; pricing with market power; price discrimination; peak-load pricing; two-part tariff; monopolistic competition and oligopoly; game theory and competitive strategy

Unit 3

Market failure Externalities; public goods and markets with asymmetric information

References

1. Osborne, M. (2004). *An introduction to game theory*. Oxford University Press.
2. Snyder, C., Nicholson, W. (2010). *Fundamentals of microeconomics*. Cengage Learning.
3. Varian, H. (2010). *Intermediate microeconomics: A modern approach, 8th ed.* W. W. Norton.

Intermediate Macroeconomics II (BAECO-402)

Course Objective

This course is a sequel to Intermediate Macroeconomics I. In this course, students are introduced to long run issues like growth, technical progress, economics of ideas, R&D, innovation and knowledge creation. This course also provides insights into modern business cycle analysis. Finally it introduces students to open economy macro issues. At the end, it provides a long run perspective to policy-making by framing policies in a dynamic context.

Course Learning Outcomes

This course will enable students to combine their knowledge of the working of the macro economy with long run economic phenomena like economic growth, technological progress, R&D and innovation. It will also enable students to understand business cycles and the concomitant role of policies.

Unit 1

Economic growth Harrod-Domar model; Solow model; Golden rule, technological progress, economics of ideas, engines of growth, modern theories of endogenous growth

Unit 2

Business cycles Real business cycle theory; new Keynesian models of sticky prices

Unit 3

Open economy models Short-run open economy models; Mundell-Fleming model; exchange rate determination; purchasing power parity; asset market approach; Dornbusch's overshooting model; monetary approach to balance of payments; international financial markets

Unit 4

Fiscal and monetary policy Active or passive; monetary policy objectives and targets; rules versus discretion: time consistency; the government budget constraint; government debt and Ricardian equivalence

References

1. Abel, A., Bernanke, B. (2016). *Macroeconomics, 9th ed.* Pearson Education.
2. Blanchard, O. (2018). *Macroeconomics, 7th ed.* Pearson Education.
3. Branson, W. (2013). *Macroeconomics: Theory and policy, 3rd ed.* East West Press.
4. Dornbusch, R., Fischer, S., Startz, R. (2018). *Macroeconomics, 12th ed.* McGraw-Hill.
5. Jones, C. (2013). *Introduction to economic growth, 2nd ed.* W. W. Norton.
6. Jones, C. (2016). *Macroeconomics, 4th ed.* W. W. Norton.
7. Mankiw, N. (2016). *Macroeconomics, 9th ed.* Worth Publishers.

Introductory Econometrics (BAECO-403)

Course Objective

This course introduces students to the econometric methods used to conduct empirical analysis in Economics. The course is designed to provide the students with the basic quantitative techniques needed to undertake applied research projects. It also provides the base for more advanced optional courses in econometrics.

Course Learning Outcomes

Students will learn to estimate linear models using ordinary least squares and make inferences about population parameters. They will also understand the biases created through mis-specified models, such as those that occur when variables are omitted.

Unit 1

Nature and scope of econometrics

Unit 2

Simple linear regression model: Two variable case Ordinary least squares estimation of a linear model; properties of estimators; goodness of fit; testing of hypotheses; scaling and units of measurement; confidence intervals; the Gauss- Markov theorem; forecasting and prediction

Unit 3

Multiple linear regression model Extension of the single explanatory variable case to a multivariate setting; introducing non-linearities through functions of explanatory variables

Unit 4

Violations of classical assumptions: Consequences, detection and remedies

Multicollinearity; heteroscedasticity; serial correlation

Unit 5

Specification Analysis Omission of a relevant variable; inclusion of irrelevant variable; specification tests

References

1. Dougherty, C. (2011). *Introduction to econometrics, 4th ed.* Oxford University Press.
2. Gujarati, D. (2014). *Econometrics by example, 2nd ed.* Palgrave Macmillan.
3. Gujarati, D., Porter, D. (2010). *Essentials of econometrics, 4th ed.* McGraw-Hill.
4. Kmenta, J. (2008). *Elements of econometrics.* Khosla Publishing House.
5. Maddala, G., Lahiri, K. (2009). *Introduction to econometrics, 4th ed.* Wiley.
6. Wooldridge, J. (2014). *Introduction to econometrics: A modern approach, 5th ed.* Cengage Learning.

Research Methodology (BAECO-404A)

Course Objective

The course begins with the formulation of a research problem and covers the issues concerning the generation of primary sample data. In this regard the designing of a questionnaire, the methods of design of a sample and its size, the modes of data collection from direct interview to online surveys, the appreciation of possible sources of errors, and the cleaning of data forms the bulk of the classroom instruction.

Course Learning Outcomes

The course imparts skills to undertake data based research. The student enrolling in this course would develop competency in executing sample surveys and would have reasonable exposure to a variety of secondary data sources.

Unit 1

Data types and sources: Qualitative and quantity data, measurement and scales; secondary sources of data and institutions

Unit 2

Sample questionnaires: Measurement and scales; questionnaires

Unit 3

Sample type and size: Simple random sampling; cluster sampling; stratified sampling and its complications; Determining an appropriate size

Unit 4

Errors in surveys: Misunderstanding of questions and answers; problem of non- response

Unit 5

Processing of survey data: Cleaning of data and its coding

Unit 6

Ethics and scientific integrity: Standards of conduct, privacy in data

References

1. Bethlehem, J. (2009). *Applied survey methods: A statistical perspective*. Wiley.
2. Cochran, W. (2008). *Sampling techniques, 3rd ed*. Wiley.
3. Cooper, D., Schindler, P., Sharma, J. (2012). *Business research methods, 12th ed*. McGraw-Hill.
4. Flick, U. (2012). *Introducing research methodology: A beginner's guide to doing a research project*. Sage Publications.
5. Groves, R., Fowler, F., Couper, M., Lepkowski, J., Singer, E., Tourangeau, R. (2009). *Survey Methodology*. Wiley.
6. Kumar, R. (2014). *Research methodology: A step by step guide for beginners, 4th ed*. Sage Publications.

Contemporary Economic Issues (BAECO-404B)

Course Objective

The course seeks to familiarize students with basic concepts related to the Economic Survey and Union Budget. It aims to equip students with sufficient knowledge and skills to analyse these documents.

Course Learning Outcomes

Students will have the capability to understand government policies and will in general be informed participants in economic decision making.

Unit 1

Concepts

- Fiscal policy, areas of government spending in India
- Capital and revenue expenditure, plan and non-plan expenditures
- Deficits (fiscal, primary, revenue), impact of fiscal deficits on the economy
- Capital receipts, revenue receipts, tax and non-tax revenue, direct and indirect taxes, need for rationalization of tax structure, Goods and Services Tax (GST)
- Actual, revised and budget estimates
- Zero-base budgeting
- Gender budgeting
- Fiscal devolution and centre-state financial relations

Unit 2

The economic survey

- Analysis of current and past policy emphasis

Unit 3

The union budget

- Need for the budget, understanding the process of budget making in India
- Analysis of fiscal and revenue deficits
- Analysis of sources of revenue and expected growth in revenue, tax simplification, improvement in administration, expansion of tax net and other measures to improve revenue receipts,
- Analysis of expenditure pattern and expected growth in expenditure, thrust areas of budget, sectors that have received higher/lower shares of expenditure, the reasons and consequences thereof, steps proposed to ensure effective spending

References

Given the nature of the course, the readings will be updated every year.

1. Centre for Budget and Governance Accountability. Recent reports.
2. Chakra barty, P. (2015). Intergovernmental fiscal transfers in India: Emerging trends and realities. In P. Patnaik (ed.): *Macroeconomics*. Oxford University Press.
3. Dasgupta, D., De, S. (2012). Fiscal deficit. In *The new Oxford companion to economics in India*. Oxford University Press.
4. Kapila, U. (2016). *Fiscal and budgetary developments in Indian economy since independence*. Academic Foundation.
5. Ministry of Finance. Economic and social classification of the budget.
6. Ministry of Finance. Economic survey (latest).
7. Ministry of Finance. Finance Commission report (latest).

8. Ministry of Finance. Union Budget.
9. Mukherjee, P. (2012). Budget making. In K. Basu, A. Maertens (eds.): *The new Oxford companion to economics in India*. Oxford University Press.
10. Mukherjee, S. (2015). Present state of goods and services tax (GST) reform in India. Working Paper No. 154. *National Institute of Public Finance and Policy*.
11. Reddy, Y. (2015). Continuity, change and the way forward: The fourteenth finance commission. *Economic and Political Weekly*, 50(21), 27-36.
12. Spiegel, M. (2003). *Theory and problems of probability and statistics*. Chapter 19. McGraw-Hill.

Public Finance (BAECO-405)

Course Objective

This course is a non-technical overview of government finances with special reference to India. The course does not require any prior knowledge of economics. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralization in India. The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

Course Learning Outcomes

The module aims to introduce students to the main concepts in public finance, equip students with a thorough analytical grasp of government taxes: direct and indirect taxes, and familiarize students with the main issues in government expenditure. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of public finances, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various government policy options, and demonstrate their understanding of the usefulness and problems related to government revenues and expenditures.

Unit 1

Theory: Overview of Fiscal Functions, Tools of Normative Analysis, Pareto Efficiency, Equity and the Social Welfare; Market Failure, Public Good and Externalities; Elementary Theories of Product and Factor Taxation (Excess Burden and Incidence)

Unit 2

Issues from Indian Public Finance: Working of Monetary and Fiscal Policies; Current Issues of India's Tax System; Analysis of Budget and Deficits; Fiscal Federalism in India; State and Local Finances

References

1. Alam, S. (2016). GST and the states: sharing tax administrations. *Economic and Political Weekly*, 51(31).
2. Cullis, J., Jones, P. (1998). *Public finance and public choice*, 2nd ed. Oxford University Press.
3. Das, S. (2017). Some concepts regarding the goods and services tax. *Economic and Political Weekly*, 52(9).
4. Government of India. (2017). *GST - Concept and status - as on 3rd June, 2017*. Central Board of Excise and Customs, Department of Revenue, Ministry of Finance.
5. Hindriks, J., Myles, G. (2013). *Intermediate public economics*, 2nd ed. MIT Press.
6. Rao, M. (2005). Changing contours of federal fiscal arrangements in India. In A. Bagchi (ed.): *Readings in public finance*. Oxford University Press.
7. Rao, M., Kumar, S. (2017). Envisioning tax policy for accelerated development in India. *Working Paper No. 190, National Institute of Public Finance and Policy*.
8. Reddy, Y. (2015). Fourteenth finance commission: Continuity, change and way forward. *Economic and Political Weekly*, 50(21), 27-36.
9. Stiglitz, J. (2009). *Economics of the public sector*, 3rd ed. W. W. Norton.

Indian Economy I (BAECO-501)

Course Objective

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points.

Course Learning Outcomes

At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well being.

Unit 1

Economic development since independence

Unit 2

Human Capital: Demography, health and education

Unit 3

Growth and Distribution: Poverty, inequality, unemployment and policy interventions

Unit 4

International comparisons

References

Given the topical nature of this course, some readings will change from year to year.

1. Balakrishnan, P. (2007). The recovery of India: Economic growth in the Nehru era. *Economic and Political Weekly*, 42(45-46), 52-66.
2. Bardhan, P. (2012). *Awakening giants, feet of clay: Assessing the economic rise of China and India*. Princeton University Press.
3. Basu, K., Maertens, A. (2007). The pattern and causes of economic growth in India. *Oxford Review of Economic Policy*, 23, 143-167.
4. Bhagwati, J., Panagariya, A. (2012). *India's tryst with destiny*, Collins Business.
5. Centre for Sustainable Employment. (2018). *State of working India 2018*. Azim Premji University.
6. Desai, S. (2015). Demographic deposit, dividend and debt. *The Indian Journal of Labour Economics*, 58, 217-232.
7. Dreze, J., Khera, R. (2017). Recent social security initiatives in India, *World Development*, 98, 555-572.
8. Dreze, J., Sen, A. (2013). *India: An uncertain glory*. Allen Lane.
9. Joshi, V. (2016). *India's long road: The search for prosperity*. Allen Lane.
10. Meenakshi, J. (2016). Trends and patterns in the triple burden of malnutrition in India. *Agricultural Economics*, 47, 115-134.
11. Ministry of Finance. (2016). Universal basic income: A conversation with and within the mahatma. Chapter 9 in *Economic Survey*, 172-212.
12. Panagariya, A., Mukim, M. (2014). A comprehensive analysis of poverty in India. *Asian Development Review*, 31, 1-52.
13. Rangarajan Committee. (2014). *Report of the expert group to review the methodology for measurement of poverty*. Government of India.
14. Rawal, V., Bansal, V., Bansal, P. (2019). Prevalence of undernourishment in Indian states: Explorations based on NSS 68th round data. *Economic and Political Weekly*, 54(15), 35-45.

15. Rodgers, G. (2018). Inequality in the Indian growth regime. *Indian Journal of Human Development*, 12, 134-148.
16. Thomas, J. (2014). India's labour market during the 2000s: An overview. In K. Ramaswamy (ed.): *Labour, employment and economic growth in India*. Cambridge University Press, 21-56.
17. Verick, S. (2018). Female labor force participation and development. *IZA World of Labor*, 2, 1-11.

Development Economics I (BAECO-502)

Course Objective

This is the first part of a two-part course on economic development. The course begins with a discussion of alternative conceptions of development and their justification. It then proceeds to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by linking political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state governance.

Course Learning Outcomes

This course introduces students to the basics of development economics, with in-depth discussions of the concepts of development, growth, poverty, inequality, as well as the underlying political institutions.

Unit 1

Conceptions of Development Alternative measures of development, documenting the international variations in these measures, comparing development trajectories across nations and within them

Unit 2

Growth Models and Empirics The Harrod-Domar model, the Solow model and its variants, endogenous growth models, and evidence on the determinants of growth

Unit 3

Poverty and Inequality: Definitions, Measures and Mechanisms Inequality axioms; comparison of commonly used inequality measures; connections between inequality and development; poverty measurement; characteristics of the poor; mechanisms that generate poverty traps, and path dependence of growth processes

Unit 4

Political Institutions and the Functioning of the State The determinants of democracy; alternative institutional trajectories and their relationship with economic performance; within-country differences in the functioning of state institutions; state ownership and regulation; government failures and corruption

References

1. Banerjee, A., Benabou, R., Mookerjee, D. (eds.) (2006). *Understanding poverty*. Oxford University Press.
2. Bardhan, P. (2010). *Awakening giants, feet of clay: Assessing the economic rise of China and India*. Oxford University Press.
3. Basu, K. (2007). *The Oxford companion to economics in India*. Oxford University Press.
4. Dasgupta, P. (2007). *Economics: A very short introduction*. Oxford University Press.
5. Deaton, A. (2013). *The great escape: Health, wealth and the origins of inequality*. Princeton University Press.
6. Hirschman, A. (1992). *Rival views of market society and other essays*. Ch. 3: "Linkages in Economic Development". Harvard University Press.
7. Human Development Report. Relevant years.
8. Olson, M. (1996). Big bills left on the sidewalk: Why some nations are rich, and others poor. *Journal of Economic Perspectives*, 10, 3-24.
9. Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective*

- action*. Cambridge University Press.
10. Piketty, T., Saez, E. (2014). Inequality in the long run, *Science*, 344.
 11. Ray, D. (1998). *Development economics*. Princeton University Press.
 12. Rodrik, D. (2009). *One economics, many recipes: Globalization, institutions and economic growth*. Ch. 1: "Fifty Years of Growth (and lack thereof): An Interpretation". Princeton University Press.
 13. Sen, A. (2000). *Development as freedom*. Oxford University Press.
 14. Shleifer, A., Vishny, R. (1993). Corruption. *Quarterly Journal of Economics*, 108, 599-617.
 15. Todaro, M., Smith, S. (2015). *Economic Development*. Pearson.

Game Theory (BAECO-503A)

Course Objective

Game theory introduces the students to optimal decision making in interactive settings. This course will deal with the solution concepts for normal form and extensive form games, along with a variety of applications. Ideas related to asymmetric information among the interacting agents will also be analysed in this course. The course ends with the application of game theory to analyse moral hazard, adverse selection and signalling problems.

Course Learning Outcomes

The students will learn how to model multi-person decision making in an interactive setting. They will understand how to formulate different real life situations as games and learn to predict the optimal strategies of players and how the players can exploit strategic situations for their own benefit.

Unit 1

Normal form games The normal form; dominant and dominated strategies; dominance solvability; mixed strategies; Nash equilibrium; symmetric single population games; applications

Unit 2

Extensive form games with perfect information The game tree; strategies; sub game perfection; backward induction in finite games; commitment; bargaining; other applications

Unit 3

Simultaneous move games with incomplete information Strategies; Bayesian Nash equilibrium; applications

Unit 4

Extensive form games with imperfect information Strategies; beliefs and sequential equilibrium; applications

Unit 5

Information economics. Adverse selection; moral hazard; signaling games

References

1. Osborne, M. (2004). *An introduction to game theory*. Oxford University Press. Teaching

International Trade (BAECO-503B)

Course Objective

The purpose of this course is to inform the basics of international trade theory and to examine the effects of international economic policies on domestic and world welfare. This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. Although the course is based on abstract theoretical models, students will also be exposed to real-world examples and case studies.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in international trade, equip students with a thorough analytical grasp of trade theory, ranging from Ricardian comparative advantage to modern theories of intra-industry trade, and familiarize students with the main issues in trade policy and with the basic features of the international trading regime. At the end of the course, the students should be able to demonstrate their understanding of the economic concepts of trade theory. In some models, the student will be required to deal with simple algebraic problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of free trade and protection, demonstrate their understanding of the usefulness and problems related to topics in international trade, and demonstrate their critical understanding of trade policies.

Unit 1

Introduction: What is international economics about? An overview of world trade.
Stylized facts about international trade

Unit 2

Neoclassical trade theories: Ricardian trade theory (notion of comparative advantage and gains from trade due to specialisation); an introduction to the distributional effects of trade; the specific factor model; Heckscher-Ohlin theory: Rybczynski and Stolper-Samuelson theorems; Heckscher-Ohlin theorem; factor price equalization

Unit 3

New trade theories: external economies of scale, internal economies of scale; the Krugman model; firm heterogeneity; international movement of factors; introduction to the theory of multinational firms

Unit 4

Trade policy: instruments of trade policy; tariffs, quotas, export subsidies, voluntary export restraints. The economics of trade policy; political economy of trade policy; controversies in trade policy

References

1. Feenstra, R., Taylor, A. (2014). *International economics, 3rd ed.* Worth Publishers.
2. Krugman, P., Obstfeld, M., Melitz, M. (2018). *International Economics - Theory and Policy, 11th ed.* Pearson Education.
3. Pugel, T. (2015). *International economics, 16th ed.* McGraw-Hill.

Public Economics (BAECO-503C)

Course Objective

Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities. The paper is divided into two sections, one dealing with the theory of public economics and the other with the Indian public finances.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in public economics, equip students with a thorough analytical grasp of implications of government intervention for allocation, distribution and stabilization, and familiarize students with the main issues in government revenues and expenditure. At the end of the module the students should be able to demonstrate their understanding of the public economics. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to taxation and government expenditure, and demonstrate their critical understanding of public policies

Unit 1

Public Economic Theory: Fiscal functions: an overview; Public Goods: definition, models of efficient allocation, pure and impure public goods, free riding; Externalities: the problem and its solutions, taxes versus regulation, property rights, the Coase theorem; and Taxation: its economic effects; dead weight loss and distortion, efficiency and equity considerations, tax incidence, optimal taxation

Unit 2

Indian Public Finances: Tax System: structure and reforms; Budget, deficits and public debt; Fiscal federalism in India

References

1. Alam, S. (2016). GST and the states: sharing tax administrations. *Economic and Political Weekly*, 51(31).
2. Cullis, J., Jones, P. (1998). *Public finance and public choice*, 2nd ed. Oxford University Press.
3. Das, S. (2017). Some concepts regarding the goods and services tax. *Economic and Political Weekly*, 52(9).
4. Government of India. (2017). *GST - Concept and status - as on 3rd June, 2017*. Central Board of Excise and Customs, Department of Revenue, Ministry of Finance.
5. Hindriks, J., Myles, G. (2013). *Intermediate public economics*, 2nd ed. MIT Press.
6. Rao, M. (2005). Changing contours of federal fiscal arrangements in India. In A. Bagchi (ed.): *Readings in public finance*. Oxford University Press.
7. Rao, M., Kumar, S. (2017). Envisioning tax policy for accelerated development in India. *Working Paper No. 190, National Institute of Public Finance and Policy*.
8. Reddy, Y. (2015). Fourteenth finance commission: Continuity, change and way forward. *Economic and Political Weekly*, 50(21), 27-36.
9. Stiglitz, J. (2009). *Economics of the public sector*, 3rd ed. W. W. Norton.

Financial Economics (BAECO-503D)

Course Objective

This course provides a strong theoretical foundation and an economic framework to understand the world of modern finance. Major topics in the course include: time- value of money; fixed-income securities; bond pricing and the term structure of interest rates; portfolio theory and pricing models such as the capital asset pricing model; hedging, speculation, and arbitrage; futures and options contracts; determination of forward and futures prices; trading strategies involving options; binomial trees; and the Black-Scholes-Merton option pricing model

Course Learning Outcomes

Students acquire extensive theoretical knowledge in portfolio risk management, capital asset pricing, and the operation of financial derivatives. The course familiarizes students with the terms and concepts related to financial markets and helps them comprehend business news/articles better. The course also helps to enhance a student's understanding of real life investment decisions. The course has a strong employability quotient given the relatively high demand for skilled experts in the financial sector.

Unit 1

Investment theory and portfolio analysis: deterministic cash flow streams; basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates

Unit 2

Single period random cash flows; mean-variance portfolio theory; random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem. CAPM: the capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula; the CAPM as a factor model, arbitrage pricing theory

Unit 3

Futures, options and other derivatives: introduction to derivatives and options; forward and futures contracts; options; other derivatives; the use of futures for hedging, stock index futures; forward and futures prices; interest rate futures and duration-based hedging strategies, option markets; call and put options; factors affecting option prices; put-call parity; option trading strategies: spreads; straddles; strips and straps; strangles; the principle of arbitrage; discrete processes and the binomial tree model; risk neutral valuation; stochastic process (continuous variable, continuous time), the Markov property, Itô's lemma; the idea underlying the Black-Scholes-Merton (BSM) differential equation, BSM pricing formulas; the Greek letters

References

1. Brealey, R., Myers, S., Allen, F., Mohanty, P. (2013). *Principles of corporate finance, 10th ed.* Tata McGraw-Hill.
2. Hull, J., Basu, B. (2017). *Options, futures, and other derivatives, 9th ed.* Pearson Education.
3. Luenberger, D. (2013). *Investment science.* Oxford University Press.

Applied Econometrics (BAECO-503E)

Course Objective

The course assumes that students have a basic knowledge of statistics, mathematics as well as basic econometric theory. It builds on the compulsory Introductory Econometrics course and teaches students a broad set of commonly used econometric methods. These include estimating models with limited dependent variables and the use of instrumental variables to estimate models with endogenous regressors.

Course Learning Outcomes

Students will learn the theoretical basis for techniques widely used in empirical research and consider their application in a wide range of problems.

Unit 1

Stages in empirical econometric research

Unit 2

The linear regression model: estimation, specification and diagnostic testing: estimation, specification and inference

Unit 3

Advanced topics in regression analysis: dynamic econometric models, instrumental variable estimation, measurement errors

Unit 4

Panel data models and estimation techniques: pooled regression, fixed and random effects models

Unit 5

Limited dependent variables: logit and probit models for binary responses, tobit models for truncated data.

Unit 6

Introduction to econometric software; publicly available data sets and software will be used to estimate models and apply the techniques learned in class

References

1. Gujarati, D. (2014). *Econometrics by example, 2nd ed.* Palgrave Macmillan.
2. Gujarati, D., Porter, D. (2012). *Basic econometrics, 5th ed.* McGraw-Hill.
3. Wooldridge, J. (2014). *Introduction to econometrics: A modern approach, 5th ed.* Cengage Learning.

Economic History of India 1857-1947 (BAECO-503F)

Course Objective

This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the mechanisms that linked economic development in India to the compulsions of colonial rule.

Course Learning Outcomes

The course develops critical analytical skills and exposes students to understanding the intricacies of India's economic, political and social developments both in the past and present times. It increases their employability by enhancing their ability to deal with a variety of textual and statistical sources, and to draw upon them to construct a coherent argument. These skills would be useful in a variety of careers in academics, research, journalism and the government.

Unit 1

Colonial India: background and introduction

Unit 2

Trends in national income, population; labour and occupational structure

Unit 3

Agriculture, agrarian structure and land relations

Unit 4

Railways and industry

Unit 5

Economy and state in the imperial context

References

Some readings may be updated periodically. Material for the course will be drawn from the following sources

1. Balachandran, G. (2016). Colonial India and the world economy, C. 1850-1940. In L. Chaudhary, B. Gupta, T. Roy, A. Swami (eds.): *A new economic history of colonial India*. Routledge.
2. Bogart, D., Chaudhary, L. (2016). Railways in colonial India: an economic achievement? In L. Chaudhary, B. Gupta, T. Roy, A. Swami (eds.): *A new economic history of colonial India*. Routledge.
3. Chaudhary, L., Gupta, B., Roy, T., Swami, A. (2016). Agriculture in colonial India. In L. Chaudhary, B. Gupta, T. Roy, A. Swami (eds.): *A new economic history of colonial India*. Routledge.
4. Chaudhuri K. (1982). Foreign trade and balance of payments (1757-1947). In D. Kumar, T. Raychaudhari (eds.): *Cambridge economic history of India 1757-c.1970 2*. Orient Longman.
5. Guha, S. (1991). Mortality decline in early 20th century India. *Indian Economic and Social History Review*, 28(4), 371-87.
6. Jain, L. (2011). Indigenous credit instruments and systems. In M. Kudaisya (ed.): *The Oxford India anthology of business history*. Oxford University Press.
7. Klein, I. (1984). When rains fail: Famine relief and mortality in British India. *Indian Economic and Social History Review*, 21, 185-214.
8. Krishnamurty, J. (1982). Occupational structure. In D. Kumar, T. Raychaudhari (eds.): *Cambridge economic history of India 1757-c.1970 2*. Orient Longman.
9. Morris, M. (1965). *Emergence of an industrial labour force in India*. Oxford

- University Press.
10. Parthasarathi, P. (2009). Historical issues of deindustrialization in nineteenth century south India. In T. Roy, G. Riello (eds.): *How India clothed the world: The world of south Asian textiles, 1500-1850*. Brill Academic.
 11. Parthasarathy, P. (2011). *Why Europe grew rich and Asia did not: Global economic divergence, 1600-1850*. Chapters 2, 8. Cambridge University Press.
 12. Ray, R. (1994). Introduction. In R. Ray (ed.): *Entrepreneurship and industry in India 1800-1947*. Oxford University Press.
 13. Roy, T. (2018). *A business history of India: Enterprise and the emergence of capitalism from 1700*. Chapters 4, 5, 6. Cambridge University Press.
 14. Roy, T. (2011). *The Economic History of India 1857-1947, 3rd ed.* Chapters 3, 5, 6, 11. Orient Longman.
 15. Washbrook, D. (2012). The Indian economy and the British empire. In D. Peers, N. Gooptu (eds.): *India and the British Empire*. Oxford University Press.

Political Economy I (BAECO-503G)

Course Objective

This course explores the systemic structures and institutions of capitalist economies and their evolution in a political economic framework. Students will be exposed to alternative schools of thought and are expected to read some classic texts and commentaries as well as more contemporary essays on the subject.

Course Learning Outcomes

This course prepares the students to develop critical thinking by exposing them to elements of economic thought, juxtaposing ideas and theoretical structures based largely on original texts and journal articles. Students learn to assimilate from a diverse range of opinions and crystallize their own thought processes and standpoints. This also helps them to develop advanced writing, presentation and research skills. It further enables them to comprehend a larger view of the world around us by analysing the existing social and political structures and their links with the economic processes. It is thus a crucial course, which exposes the social science dimension of economics to the students and also provides them skills to think and analyse in an interdisciplinary manner. The exposure to interdisciplinary thinking further enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies and social work as also for taking up employment in organisations ranging from international development agencies to development NGOs and corporate CSR. It also prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure.

Unit 1

Analysing Social Change in Historical Perspective The method of historical materialism; the transition from feudalism to capitalism; capitalism as a historical process – alternative perspectives

Unit 2

Capitalism as an Evolving Economic System Basic features; accumulation and crisis; monopoly capitalism— alternative perspectives

Unit 3

The State in Capitalism The state and the economy – contestation and mutual interdependence; the state as an arena of conflict; imperialism – the basic foundations

References

1. Baran, P. (1973). *The political economy of growth*. Chapter 3. Pelican.
2. Gurley, J. (1978). The materialist conception of history. In R. Edwards, M. Reich, T. Weisskopf (eds.): *The capitalist system, 2nd ed.* Prentice-Hall.
3. Habib, I. (1995). Capitalism in history. *Social Scientist*, 23, 15-31.
4. Harvey, D. (2014). *Seventeen contradictions and the end of capitalism*. Chapter 3. Oxford University Press.

5. Heilbroner, R. (1985). *The nature and logic of capitalism*. Chapter 4. W. W. Norton.
6. Heilbroner, R. (1987). Capitalism. In *The New Palgrave Dictionary of Modern Economics*. Macmillan. Also reprinted in Heilbroner R. (1978). *Behind the veil of economics*. W. W. Norton.
7. Heinrich, M. (2012). *An introduction to the three volumes of Karl Marx's Capital*. (English translation by A. Locascio). Monthly Review Press.
8. Hunt, E. (2004). *History of economic thought*. Chapter 1. Shilpi Publications.
9. Kalecki, M. (1972). Political aspects of full employment. In E. Hunt, J. Schwarz (eds.): *A critique of economic theory*. Penguin Books.
10. Lange, O. (1963). *Political economy, Vol. 1*. Chapters 1 and 2. Macmillan.
11. Patnaik, P. (2006). Lenin's theory of imperialism today. In K. S. Jomo (ed.): *The long twentieth century: The great divergence: Hegemony, uneven development and global inequality*. Oxford University Press.
12. Schumpeter, J. (1976). *Capitalism, socialism and democracy*. Chapters 6, 7 and 8. George Allen and Unwin.
13. Shaikh, A. (2000). Economic crises. In T. Bottomore, et al. (eds.): *The dictionary of Marxist thought*. Maya Blackwell.
14. Shaikh, A. (2000). Falling rate of profit. In T. Bottomore et al. (eds.): *The dictionary of Marxist thought*. Maya Blackwell.
15. Sweezy, P. (1942). *The theory of capitalist development*. Monthly Review Press.
16. Vakulabharanam, V. (2009). The recent crisis in global capitalism: Towards a Marxian understanding. *Economic and Political Weekly*, 44, 144-150.

SOFT SKILLS AND PERSONALITY ENHANCEMENT

Unit – I

- (I) Team Building – The magic of synergy, characteristics of an effective team, essentials of an effective team, Team Dynamics, Team Leading, Managing a Team.
- (II) Art of Negotiation –To understand what is negotiation, Ways of negotiating and being successful in it, To understand the power of language and non-verbal communication.
- (III) Grooming –To learn selection of proper attire as per the place, Practiced perception, How to carry one's self, How to project one's self in the positive frame and spirit.

Unit – II

- (I) Organising Meetings – How to announce, call and organize a meeting in a smooth manner, How to design Agenda and prepare Minutes of Meeting
- (II) Telephonic Etiquettes –Learn the tone and pitch of voice while speaking over phone, How to send a voice mail.
- (III) Business Etiquettes –What does business etiquettes mean, Professional and Cultural expectations, Effective writing, Corporate Communication, Interaction with foreign clients.

Unit –III

- (I) Stress Management –Types of stress, Symptoms and causes of Stress, Power of perception, Reaction to stress, Stress Management techniques.
- (II) Time Management – Importance of Time Management, Prioritising Tasks, Goal setting, Barriers to Time Management , Planning Routine and Time Tables.
- (III) Self Management –Self evaluation, Self discipline, Self criticism, SWOT analysis, Self Awareness, Development of the Self.

Unit – IV

- (I) Presentation Skills –How to prepare a presentation, Knowing the audience and their requirements, Effective ways to deliver presentation, How to prepare Multimedia presentation.
- (II) Organisational Skills – How to understand the nature and structure of organisation, To understand hierarchy and communication channel of the organisation, Clarity about the roles and responsibilities in an organisation, How to be a team member, How to draft reports

- (III) Leadership Skills

Unit – V

- (I) Group Discussion – Understanding the nature of discussion, Difference between debate and discussion, Ways to form and present arguments, Ways to defend your point.
- (II) Personal Interview –To learn the skills of appearing in an interview and being successful in it.
- (III) Public Speaking – Art of public speaking, To know the rhetoric of making a public speech, exploring rhetorical elements through various ideas..
- (IV) Conference and Meeting, Participation and Technical clarity in conference and meeting, Learning to listen and respond, Final Report drafting.

Reference Books:-

1. Soft Skill for everyone –Jeff Butterfield
2. Soft Skill for-S.I. Hariharan -MJP Publications
3. Personality Development & Soft skill – Goyal Brothers Prakasan

Indian Economy II (BAECO-601)

Course Objective

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence.

Course Learning Outcomes

At the end of the course, a student should be able to understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.

Unit 1

Macroeconomic policies and their impact

Unit 2

Policies and performance in agriculture

Unit 3

Policies and performance in industry and services

References

Given the topical nature of this course, readings will be updated from year to year.

1. Anand, R., Kochhar, K., Mishra, S. (2015). Make in India: Which exports can drive the next wave of growth? *IMF working paper*, WP/15/119.
2. Banga, R. (2014). Trade facilitation and 'hollowing-out' of Indian manufacturing. *Economic and Political Weekly*, 49(40), 57-63.
3. Basole, A., Basu, D., Bhattacharya, R. (2015). Determinants and impacts of subcontracting: Evidence from India's unorganised manufacturing sector. *International Review of Applied Economics*, 29, 374-402.
4. Bhagwati, J., Panagariya, A. (2012). A multitude of labor laws and their reforms. In *India's tryst with destiny*. Collins Business.
5. Centre for Sustainable Employment. (2018). State of working India 2018. *Azim Premji University*.
6. Chanda, R. (2017). Services for Indian manufacturing. In M. Dev (ed.) *India Development Report*.
7. Chatterjee, S., Kapur, D. (2017). Six puzzles in Indian agriculture. *India Policy Forum 2016*, Vol. 17.
8. Das, D., Singh, J., Choudhury, H. (2018). Judicial production of labour market flexibility: Contract labour employment in Indian organised manufacturing. In Hill and Patil (eds.): *Employment policy in emerging economies*. Routledge.
9. Deakin, S., Halder, A. (2015). How should India reform its labor laws? *Economic and Political Weekly*, 50(12), 48-55.
10. Gulati, A., Saini, S. (2017) 25 years of policy tinkering in agriculture. In R. Mohan (ed.): *India transformed: 25 years of economic reforms*. Penguin.
11. Kapoor, R., Krishnapriya, P. (2019). Explaining the contractualisation of India's workforce. *ICRIER Working Paper* 369.
12. Kumar, N. (2015). FDI and portfolio investment flows and development: A perspective on Indian experience. In U. Kapila (ed.): *Indian economy since independence, 26th ed.* Academic Foundation.
13. Ministry of Finance. (2017). Climate, climate change and agriculture. Ch. 6 in *Economic Survey*.

14. Mohan, R., Ray, P. (2017). Indian financial sector - structure, trends and turns. *IMF working paper*.
15. Panda, M. (2017). Macroeconomic development and challenges for growth. In M. Dev (ed.): *India Development Report*.
16. Rajesh, S., Sen, K. (2016). Some puzzles about firms. *Economic and Political Weekly*, 51(7), 43-51.
17. Roychowdhury, A. (2019). Application of job security laws, workers' bargaining power and employment outcomes in India. *The Economic and Labour Relations Review*, 30, 120-141.
18. Sen, K., Das, D. (2015). Where have all the workers gone? The puzzle of declining labour intensity in organised Indian manufacturing. *Economic and Political Weekly*, 50(23), 108-115.
19. Veeramani, C., Dhir, G. (2017). Make what in India? In M. Dev (ed.): *India Development Report*.

Development Economics II (BAECO-602)

Course Objective

This is the second course of the economic development sequence. It begins with basic demographic concepts and their evolution during the process of development. The structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. The governance of communities and organizations is studied and this is then linked to questions of sustainable growth. The course ends with reflections on the role of globalization and increased international dependence on the process of development.

Course Learning Outcomes

This course teaches the student various aspects of the Indian economy, as well as important themes relating to the environment and sustainable development. It also introduces them to some issues of globalisation.

Unit 1

Demography and Development Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; connections between income, mortality, fertility choices and human capital accumulation; migration

Unit 2

Land, Labour and Credit Markets The distribution of land ownership; land reform and its effects on productivity; contractual relationships between tenants and landlords; land acquisition; nutrition and labor productivity; informational problems and credit contracts; microfinance; inter-linkages between rural factor markets

Unit 3

Environment and Sustainable Development Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change

Unit 4

Globalisation Globalisation in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalised world

References

1. Banerjee, A., Benabou, R., Mookerjee, D. (eds.) (2006). *Understanding poverty*. Oxford University Press.
2. Dasgupta, P. (2007). *Economics: A very short introduction*. Oxford University Press.
3. Kolstad, C. (2012). *Intermediate environmental economics*. Oxford University Press.
4. Meier, G., Rauch, J. (2005). *Leading issues in economic development*. Oxford University Press.
5. Nordhaus, W. (2013). *The Climate Casino*. Yale University Press.
6. Rajan, R. (2011). *Fault lines: How hidden fractures still threaten the world economy*. Princeton University Press.
7. Ray, D. (1998). *Development economics*. Princeton University Press.
8. Rodrik, D. (2011). *The globalization paradox: Why global markets, states and democracy can't coexist*. Oxford University Press.

Economics of Health and Education (BAECO-603A)

Course Objective

This is a course in applied economics, which will introduce the students to the study of health and education as components of human capital in the framework of economic theory.

Course Learning Outcomes

The students will learn the role of health and education in human development. They will be able to apply economic theory to understand the demand for health care, market failure in health insurance, economic evaluation of health care programmes and the role of public policy in the healthcare industry. They will also learn to analyse the returns to education, its role in labor market signalling, and the progress of schooling in India. They will also be exposed to the theories of discrimination.

Unit 1

Role of health and education in human development: health and education outcomes and their relationship with macroeconomic performance

Unit 2

Topics in health economic theory: demand for health, Grossman's model of demand for health, information asymmetry in healthcare demand, and the health insurance market, physician induced demand, adverse selection and moral hazard in health insurance

Unit 3

Economic evaluation of health care: cost effectiveness and cost-benefit analysis; valuing life

Unit 4

Public policy in the health sector; externalities in health and health care; rationale for government intervention in the health sector

Unit 5

Education: investment in human capital; rate of return to education: private and social; quality of education; signaling of human capital; theories of discrimination; gender and caste discrimination in India

Unit 6

Education sector in India: an overview
References

1. Bhattacharya, J., Hyde, T., Tu, P. (2014). *Health economics*, Palgrave Macmillan.
2. Ehrenberg, R., Smith, R. (2012). *Modern labor economics: Theory and public policy, 11th ed.* Addison Wesley.
3. World Development Report (1993). *Investing in Health*. The World Bank.
4. World Health Organisation (2013). *The economics of the social determinants of health and health inequalities: A resource book*. World Health Organisation.

Environmental Economics (BAECO-603B)

Course Objective

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions viewed as externalities and their management through various economic institutions, economic incentives and other instruments and policies. Methods for analysing economic implications of environmental policy are also addressed as well as the valuation of environmental quality, assessment of environmental damages, and tools needed for the evaluation of projects such as cost-benefit analysis, and environmental impact assessments. Selected topics on international environmental issues are also discussed.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarize students with the main issues in environmental valuation and with the basic features of the environmental policy tools. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.

Unit 1

Introduction: What is environmental economics? Review of microeconomics and welfare economics

Unit 2

The theory of externalities: Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem

Unit 3

The design and implementation of environmental policy: overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; implementation of environmental policy

Unit 4

International environmental problems: trans-boundary environmental problems; economics of climate change; trade and environment

Unit 5

Measuring the benefits of environmental improvements: non-market values and measurement methods; risk assessment and perception

Unit 6

Sustainable development: concepts; measurement

References

1. Aldy, J. et al. (2010). Designing climate mitigation policy. *Journal of Economic Literature*, 48, 903-934.

2. Cropper, M., Oates, W. (1992). Environmental economics: A survey, *Journal of Economic Literature*, 30, 675-740.
3. Heal, G. (2012). Reflections – defining and measuring sustainability. *Review of Environmental Economics and Policy*, 6, 147-163.
4. Kolstad, C. (2010). *Intermediate environmental economics*, 2nd ed. Oxford University Press.
5. Newell, R., Pizer, W., Raimi, D. (2013). Carbon markets 15 years after Kyoto: Lessons learned, new challenges. *Journal of Economic Perspectives*, 27, 123-46.
 6. Perman, R., Ma, Y., McGilvray, J., Common, M. (2011). *Natural resource and environmental economics*, 3rd ed. Pearson Education/Addison Wesley.
 7. Stavins, R. (ed.) (2012). *Economics of the environment: Selected readings*, 5th ed. W. W. Norton.

Open Economy Macroeconomics (BAECO-603C)

Course Objective

This course intends to emphasize on how a country's relations to the rest of the world influence aggregate economic activity, employment, exchange rate and inflation and forms the scope for monetary and fiscal policy. The course includes a thorough introduction to the foreign exchange market and a discussion of world level interactions. A major part of the course deals with the dynamic effects (effects over time) of economic shocks and policies. The course prepares the student for taking part in professional discussions about the design of monetary and fiscal policy and for any kind of work where it is important to have a good understanding of macroeconomic fluctuations (e.g. for making predictions of macro variables, for choosing investment where the return depend on macro developments) when the economies are open.

Course Learning Outcomes

The student will know how exchange rates, interest rates and capital movements between currencies are determined within different institutional settings for monetary policy (e.g. inflation targeting versus money supply targeting or exchange rate targeting), how a country's current account balance is determined, or, which amounts to the same, how capital movements between countries are determined, how shocks emanating abroad or in the foreign exchange market affect output, employment, inflation and interest rates, how the effects of changes in fiscal and monetary policy and shifts in private sector behaviour are modified through the foreign exchange markets and foreign trade, the role of cost competitiveness in the determination of economic activity, the different responses to economic shocks in the traded-goods and non-traded goods sectors of the economy, how the effects of policy actions and economic shocks are transmitted from country to country in the world economy, and the merits of different exchange rate systems (fixed versus flexible, monetary unions). In particular, you will learn more about the effects over time as flows accumulate to stocks and as the economy moves towards long-run equilibrium. At the end of course the will acquire to analyze the effects of macroeconomic events on the future time path of the economy, analyse how forces inherent in the initial state of the economy will tend to change the economy over time, discuss how current and future events may influence the exchange rate through expectations, and come up with policy suggestions and consider their effects over time.

Unit 1

Open-Economy Macroeconomics and Exchange Rates: National Income accounting and balance of payment; Exchange Rates and the Foreign Exchange Market; Money, Interest Rates, and Exchange Rates; Price Levels and the Exchange Rate in the Long Run; Output and the Exchange Rate in the Short Run; Fixed Exchange Rates and Foreign Exchange Intervention

Unit 2

International Macroeconomic Policy: International Monetary Systems: An Historical Overview; Financial Globalization: Opportunity and Crisis; Optimum Currency Areas and the Euro; Developing Countries: Growth, Crisis, and Reform

References

1. Feenstra, R., Taylor, A. (2014). *International economics, 3rd ed.* Worth Publishers.
2. Krugman, P., Obstfeld, M., Melitz, M. (2018). *International economics: Theory and policy, 11th ed.* Pearson Education.
3. Pugel, T. (2015). *International Economics, 16th ed.* McGraw-Hill Education.

Money and Financial Markets (BAECO-603D)

Course Objective

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organisation, structure, and role of financial markets and institutions. It also discusses interest rates, monetary management, and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

Course Learning Outcomes

This allows students to understand current monetary policies and financial market outcomes. It also enables them to critically evaluate policies.

Unit 1

Money: concept, functions, measurement; theories of money supply determination.

Unit 2

Financial institutions, markets, instruments, and financial innovations

Role of financial markets and institutions; problems of adverse selection and moral hazard; financial crises

Money and capital markets: organization, structure, and reforms in India; role of financial derivatives and other innovations

Unit 3

Interest rates

Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India

Unit 4

Banking System

Balance sheet and portfolio management

Indian banking system: changing role and structure; banking sector reforms

Unit 5

Central banking and monetary policy

Functions, balance sheet; goals, targets, indicators, and instruments of monetary control; monetary management in an open economy; current monetary policy of India

References

1. Baye, M., Jansen, D. (2006). *Money, banking and financial markets*. AITBS.
2. Bhole, L., Mahukud, J. (2017). *Financial institutions and markets, 6th ed.* Tata McGraw-Hill.
3. Fabozzi, F., Modigliani, F., Jones, F., Ferri, M. (2010). *Foundations of financial markets and institutions, 4th ed.* Pearson Education.
4. Jadhav, N. (2009). *Monetary policy, financial stability and central banking in India*. Macmillan.
5. Khan, M. (2015). *Indian financial system, 9th ed.* Tata McGraw-Hill.
6. Mishkin, F., Eakins, S. (2017). *Financial markets and institutions, 8th ed.* Pearson.

7. Mohan, R. (2011). *Growth with financial stability: Central banking in an emerging market*. Oxford University Press.
8. Various latest issues of RBI Bulletins, Annual Reports, Reports on Currency and Finance, and Reports of the Working Group, IMF Staff Papers.

Comparative Economic Development: 1850-1950 (BAECO-603E)

Course Objective

This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the mechanisms that linked economic development in India to the compulsions of colonial rule.

Course Learning Outcomes

By analyzing the history of industrialization and economic transition, students will be able to visualize economic development in a historical perspective and assimilate material from a diverse range of opinions. It will help them to think in an interdisciplinary manner and therefore aid them in jobs where developing and presenting comparative perspectives are key tasks.

Unit 1

Introduction and overview of the countries selected for case studies - Britain, Japan, USSR, and USA

Unit 2

Agriculture, agrarian and land relations and agrarian surplus in industrialization and economic development

Unit 3

The industrialization process

Unit 4

The factory system and making of the industrial working class

Unit 5

The role of the state in industrial and developmental transition

References

Some readings may be updated from year to year. Material for the course will be drawn from the following sources.

1. Davies, R. (1998). *Soviet economic development from Lenin to Khrushchev*. Chapters 1, 2, 3, 4, 5, 6, 7, 8. Cambridge University Press.
2. Dobb, M. (1966). *Soviet economic development since 1917*. Chapter 17. Routledge.
3. Hughes, J., Cain, L. (1994). *American economic history, 4th ed.* Chapters 2, 3, 7, 21. Harper Collins College Publishers.
4. Hayami, Y. (1975). *A century of agricultural growth in pre-war Japan: Its relevance to Asian development*. Chapters 1, 3. University of Minnesota Press.
5. Hobsbawm, E. (1968). *Industry and empire: An economic history of Britain since 1750*. Chapters 1, 2, 3, 5, 6, 12. Weidenfeld & Nicholson.
6. Hobsbawm, E. (1984). *Worlds of labour: Further studies in the history of labour*. Chapter 11. Weidenfeld & Nicholson.
7. Johnson, C. (1982). *MITI and the Japanese miracle: The growth of industrial policy 1925-1975*. Chapter 1. Stanford University Press.
8. Macpherson, W. (1995). *The economic development of Japan 1868-1941*. Chapters 1, 2, 3, 4, 6. Cambridge University Press.
9. Norman, E. (2007). *Japan's emergence as a modern state: Political and economic problems of the Meiji period*. Chapters 3, 4. University of British Columbia Press.

10. Okochi, K., Karsh, B., Levine, S. (1974). *Workers and employees in Japan: The Japanese employment relations system*. Chapter 13. Princeton University Press.
11. Paul, G., Robert, C. (1990). *Soviet economic structure and performance, 3rd ed.* Chapters 4, 7. Harper and Row.
12. Tauger, M. (2004). Soviet peasants and collectivization 1930-39: resistance and adaptation. *Journal of Peasant Studies*, 31: 3-4. 427-456.

Law and Economics (BAECO-603F)

Course Objective

While law is a non-market institution, it impacts market and non-market outcomes. By shaping incentive structure for the private individuals and the government entities, legal rules play important role in functioning of an economy. Indeed, legal rules can have astounding effects on allocation and use of resources. Besides, legal rules greatly affect the distribution of different forms of wealth. This course will illustrate how legal rules are amenable to economic analysis, and how different legal rules can lead to different outcomes in terms of allocative efficiency and distribution.

Course Learning Outcomes

This course will familiarise students with the economic approach towards thinking about the law and public policy. Students will come to recognise the law as an important organising force that influences the actions of private citizens as well as government agencies. Students will also learn how the law can support and, at times conflict with, the functioning of the market and the government, the other two important organising forces of an economy. The course will enhance critical thinking and an inter-disciplinary approach towards the law, economics, and policymaking. Thereby, the course will help to develop an inter-disciplinary approach and enhance the employability of students.

Unit 1

Law and economics: efficiency criteria in welfare economics; Coase theorem; prisoners' dilemma. Contracts; role of contracts for the functioning of markets; efficient contracts; damages measures and their efficiency properties; property rights and their role in resource allocation; Coase theorem; legal remedies for breach of property rights and their economic effects; liability for accidents and harms; product liability; efficiency of liability rules; efficiency-compensation trade-off. Litigation - its causes and consequences; benefits of legal certainty

Unit 2

Law and public policy; land and property; market and non-market mechanisms for allocation and transfer of land; land markets; eminent domain – the land acquisition law; land-pooling. Contracts for provisions of public goods: procurement contracts; government provisions vs. public-private partnerships; cost-quality trade-off. Intellectual Property Rights (IPRs): patents, copyright and trademarks. Cost and benefits of private IPRs; individual rights vs. common good

References

1. Cooter, R., Ulen, T. (2013). *Law and economics*. Pearson.
2. Hart, O. (2003). Incomplete contracts and public ownership: Application to public-private partnerships. *The Economic Journal*, 113, 69-76.
3. Miceli, T. (2012). *The theory of eminent domain: Private property, public use*, 2nd ed. Cambridge University Press.

Political Economy II (BAECO-603G)

Course Objective

This course explores some of the fundamental structural changes and dynamics of the advanced capitalist system since the development of Fordism to the contemporary period. Particularly, the course analyses the changes in the organization of production, labour market institutions as well as shifts in corporate, managerial, financial and inter-firm governance structures. It further analyses the role of the state in the era of globalization, by studying both its changed ideological foundation and varied practices. It goes on to examine the social and geopolitical consequences of such fundamental shifts. It also integrates contemporary issues of gender and environment in a political economy framework. Though grounded in political economic traditions, the course also exposes the students to interdisciplinary thought and content. It also offers a layered and contrasting perspective to some of the issues analysed in the core theoretical courses, such as microeconomics and macroeconomics. It also provides a more global and interdisciplinary context for analyzing the issues studied in the compulsory courses on the Indian Economy and Development Economics. Whereas the course is related to the fifth semester DSE course Political Economy I, it is largely a stand-alone independent course and can be pursued without any detailed knowledge of the fifth semester course.

Course Learning Outcomes

This course exposes the students to the realities of the contemporary world economy and teaches them to develop critical analysis in an integrated and broader political economy framework. It thus enables them to form a more informed view of the world we inhabit by analyzing some of the most contemporary trends and developments from different perspectives. It also exposes the students to interdisciplinary skills and written argumentation, and prepares them for a more holistic research framework. The exposure to interdisciplinary thinking further enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies and social work as also for taking up employment in

organisations ranging from international development agencies to development NGOs and corporate CSR. It also prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure, and employees are expected to comprehend and synthesize materials from diverse sources and perspectives.

Unit 1

Introduction and Historical Overview: Perspective on political economy with a historical overview: Capitalist development in the pre Second World War period, the 'Golden Age' and later

Unit 2

Changing Dynamics of Capitalist Production, Organisational Form and Labour Process: Fordist and Post-Fordist production; The changing dynamics of the organisation of production, markets and labour process; The evolution of the multinational corporations and their economic logic; The contemporary forms value chain networks and forms of inter-firm governance; The changing nature of employment, job security and labour rights

Unit 3

The State in the Era of Globalisation: Ideology, Theory and Practice: Theoretical foundations and ideological underpinnings of the neoliberal state; The neoliberal state in practice: social contradictions, instability, and the nature of resolutions in a globalized world

Unit 4

The Changing Role of Finance: The changing role of finance in the dynamics of capital

accumulation and the shifts in corporate structure; Financialisation: its nature and consequences

Unit 5

The Social Dimension: Globalization and Uneven Development – Growth, inequality and crisis in an uneven geographical spread and its social ramifications

Unit 6

Broader Perspectives (Gender and Environment): Dimensions of Gender in work, accumulation and globalization; Political economic issues in environment, sustainability and inequality

References

This course will draw upon the following readings:

1. Arnold, D., Bongiovi, J. (2013). Precarious, informalising, and flexible work: Transforming concepts and understandings. *American Behavioral Scientist*, 57, 289-308.
2. Beaud, M. (2001). *A history of capitalism, 1500-2000*. Chapters 2, 4, 5. Monthly Review Press.
3. Boyce, J. (2002). *The political economy of the environment*. Chapter 4. Edward Elgar.
4. Chang, D. (2009). Informalising labour in Asia's global factory. *Journal of Contemporary Asia*, 39, 161-179.
5. Dore, R. (2008). Financialisation of the global economy. *Industrial and Corporate Change*, 17, 1097-1112.
6. Dumenil, G., Levy, D. (2011). *The crisis of neoliberalism*. Chapter 1. Harvard University Press.
7. Elam, M. (1994). Puzzling out the post-Fordist debate: Technology, markets and institutions. In A. Amin (ed.): *Post-Fordism: A reader*. Blackwell.
8. Foster, J. (2009). *The ecological revolution*. Introduction. Cornerstone Publications.
9. Gereffi, G., Humphrey, J., Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, 12, 78-104.
10. Gottfried, H. (2013). *Gender, work and economy: Unpacking the global economy*. Chapter 10. Polity Press.
11. Harvey, D. (2005). *A brief history of neoliberalism*. Introduction, Chapters 1-3. Oxford University Press.
12. Hymer, S. (1975). The multinational corporation and the law of uneven development. In H. Radice (ed.): *International firms and modern imperialism*. Penguin Books.
13. Reddy, N. (2003). Economic globalisation, past and present: The challenges to labour. In K. Jomo, K. Jin (eds.): *Globalization and its discontents, revisited*. Tulika Books.
14. Sen, A. (1990). Gender and cooperative conflicts. In I. Tinker (ed.): *Persistent inequalities: Women and world development*. Oxford University Press.
15. Tonkiss, F. (2008). *Contemporary economic sociology: Globalisation, production, inequality*. Chapter 4. Routledge.