SYLLABUS

For

B.A/B.SC. IN ECONOMICS

Effective from the Academic Session 2019-2020

Under Semester with CBCS

Department of Economics

Aliah University

(New Town Campus)

ALIAH UNIVERSITY

B.A./B.Sc. (Honours)
In
Economics
w.e.f. 2019-20
Under Semester with CBCS

Structure of Syllabus for BA/B.Sc.Honours in Economics under Semester with CBCS

Semester	Paper Description	Course Type	L-T-P	Credit	Marks
I	**Introductory Microeconomics**	CC 1	5-1-0	6	100
	Mathematical Methods for Economics-I	CC2	5-1-0	6	100
	Ability Enhancement Compulsory Course – I ENVS	AECC- I	4-0-0	4	100
	Generic Elective (GE) Course-I	GE-I	5-1-0	6	100
II	**Introductory Macroeconomics**	CC 3	5-1-0	6	100
	Mathematical Methods for Economics-II	CC 4	5-1-0	6	100
	Ability Enhancement Compulsory Course -II Communicative English	AECC-II	4-0-0	4	100
	Generic Elective (GE) Course-II	GE -II	5-1-0	6	100
	Arabic and Islamic Studies (Compulsory course)	Compulsory	4-0-0	4	100
III	**Intermediate Microeconomics-I**	CC 5	5-1-0	6	100
	Intermediate Macroeconomics-I	CC 6	5-1-0	6	100
	Statistical Methods for Economics	CC7	5-1-0	6	100
	Generic Elective (GE) Course-III	GE -III	5-1-0	6	100
	Skill Enhancement Course (SEC)-I (Choose one from list #1)	SEC I	0-0-2 2-0-0	2	50
IV	**Intermediate Microeconomics-II**	CC 8	5-1-0	6	100
	Intermediate Macroeconomics-II	CC 9	5-1-0	6	100
	Introductory Econometrics	CC 10	5-1-0	6	100
	Generic Elective (GE) Course-IV	GE -IV	5-1-0	6	100
	Skill Enhancement Course (SEC)-II (Choose one from list #1)	SEC II	0-0-2 2-0-0	2	50

V	**International Economics**	CC 11	5-1-0	6	100
	Indian Economy	CC 12	5-1-0	6	100
	Discipline Specific Elective (DSE) Course-I (Select one from list *1)	DSE I	5-1-0	6	100
	Discipline Specific Elective (DSE) Course-II (Select one from list *2)	DSE II	5-1-0	6	100
VI	**Development Economics**	CC 13	5-1-0	6	100
	Dissertation/Project	CC 14	0-0-6	6	100
	Discipline Specific Elective (DSE) Course-III (Select one from list *3)	DSE III	5-1-0	6	100
	Discipline Specific Elective (DSE) Course-IV (Select one from list *4)	DSE IV	5-1-0	6	100

DISCIPLINE SPECIFIC COURSES (DSE)

***1 DSE 1 (Semester V)**	***3 DSE III (Semester VI)**
Economics of Social Sector Or Financial Economics	Environmental Economics or Contemporary Indian Economics
***2 DSE II (Semester V)**	***4 DSE 1V (Semester VI)**
Applied Econometrics or Economic History of India	Public Economics or Selected Features of West Bengal Economy

#1. Skill Enhancement Courses

SEC I (SEMESTER III)	**SEC II (SEMESTER IV)**
Basic computer applications Or Managerial economics	Data Analysis Or Research Methodology

Honours Course Structure

SEM	CORE COURSE	SUBJECT ELECTIVE (DSE)	GENERAL ELECTIVE (From other Departments)	AECC-I	AECC-II	SEC	Extra Course	Total Courses	Total Credits
	6 Credits	6 Credits	6 Credits	4 Credits	4 Credits	2 Credits	4 Credit		
I	2		1		1			4	22
II	2		1	1			1*	5	26
III	3		1			1		5	26
IV	3		1			1		5	26
V	2	2						4	24
VI	2	2						4	24
Total Course	14	4	4	1	1	2		26	
Total Credit	84	24	24	2	4	4			148

***the Extra Credit course in Arabic and Islamic Studies is a compulsory course for the students in 2nd semester**

1. Each student needs to choose four General Elective (GE) subjects. GE subjects are to be chosen from disciplines other than Economics. The students have to take 1 GE for each of first four semesters.

2. Internal Assessment: 20 % of the full marks of the paper should be assigned to Continuous and comprehensive assessment of the students. Of this 20 % kept for IA, 50% should be allocated to Class Internal Assessments, CIA,(at least Two). 25% should be allotted to attendance of students and remaining 25% should be in terms of student's class performance, participation and teachers assessments

CIA may take the form of written examination/s, take home assignments, viva-voce; presentation etc depending on the course instructor. As per definition CIA will be assessed fully internally by the course instructor.

3. Marking students for attendance should be as follows(out of 5):

Attendance Percentage < 60% = 0 Marks
Attendance Percentage ≥ 60% but < 70 % =3 Marks
Attendance Percentage ≥ 70% but < 90 % = 4 Marks
Attendance Percentage ≥ 90% = 5 Marks

Method followed for coding the Courses

Economics Honours Core Course 1, 1st Year, 1st semester (Theory): EC_1_1_CC_01

Economics General Elective 1, 1st semester : EC_1_1_GE_1

Year 1.

Semester I
Economics Core Course-I: Introductory Microeconomics

Code: (EC_1_1_CC_01) Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours : 75

Course Outline

1. General Concept (08 Lectures)

• Scope of Economics- Distinction between Microeconomics and Macroeconomics – concept of different Microeconomic units – commodity, consumer, firm, industry and market. Determinants of demand and supply, demand curve, supply curve – concepts of equilibrium, - statics, dynamics, comparative statics and stability of equilibrium, concept of elasticity.

2. Consumer Behaviour (25 Lectures)

• The Marshallian Approach: measurement of utility – derivation of demand curve – consumer's surplus.

• Indifference curve approach: indifference curve and its properties, the consumer-pathological cases – consumer's equilibrium, price consumption curve and income consumption curve, - price effect, income effect and substitution effect, derivation of demand curve – Giffen Paradox – market demand.

Elasticities of demand – price, income and cross elasticities – relation between price elasticity of demand, price and marginal revenue – relation between price elasticity and total expenditure.

• The Revealed Preferences approach –negativity of substitution effect from Revealed Preferences approach.

3. Producer Behaviour (30 Lectures)

• Production function: the neo-classical production function – relation between total, average and marginal productivities – law of variable proportions – the fixed coefficient production function.

• Isoquant and properties of iso-quant, Iso-cost line. Economic region of production, marginal rate of technical substitution, equilibrium of the producer - constrained output maximization and constrained cost minimization, output and substitution effects – elasticity of substitution – expansion path, returns to scale -homogeneous and homothetic production function, the Cobb Douglas and CES production function.

• Cost function: different concepts of costs, short run cost analysis and long run cost analysis – relation between the expansion path and cost function – total, average and marginal cost curves – long run cost curves as envelope of short run cost curves.

4. Market -1

• Theory of Perfect Competition (12 Lectures)

Perfect competition —Short run and long run equilibrium of a competitive firm – Short run and long run supply curves—Elasticity of Supply. Long run equilibrium of the competitive industry – price determination in a competitive industry, producer's surplus – existence, uniqueness and static stability of equilibrium –long run supply curves of the industry- effects of external economies and diseconomies – effect of change in cost – effect of imposition of tax – effect of price control.

References:

1. Robert S. Pindyck, Daniel L. Rubinfeld, Prem L.Mehta: Microeconomics, 7th Edn. Pearson.
2. G.Mankiw. 2007, Economics: Principles and Applications, India edition by South Western, Cengage Learning
3. Koutsoyiannis A: Modern Microeconomics ,Macmillan
4. Samuelson and W.Nordhaus, Economics, McGraw hill International Edition (14th edition or later edition)
5. Hal. R Varian , Intermediate Microeconomics, A modern Approach, WW Norton and Company, 8th edition, 2010
6. Ferguson, C.E. and Gould, J.P.: Microeconomic Theory, AITBS Publishers and Distributors, New Delhi.
7. G.S.Maddala and E. Miller, 1989, Microeconomics, Prentice Hall, McGraw Hill International Editions.
8. Henderson .J and Quandt R E: Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi

Economics Core Course II: Mathematical Methods in Economics-I

Course Code: (EC_1_1_CC_02) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks :100
Total Lecture Hours : 75

Course Outline

1. Preliminaries **10 lectures hours**

Sets and set operations; functions and their properties; number systems. Convex sets; geometric properties of functions: convex functions, their characterizations, properties and applications; further geometric properties of functions: quasi-convex functions, quasi-concave functions, their characterizations, properties and applications.

• Limit and continuity-Different Limit Theorems with proof-concept of first principle.
• Uses of the concept of continuity.

2. Functions of one real variable **10 lecture hours**

• Continuous functions of different types and their graphs- quadratic, polynomial, power, exponential, and logarithmic.
• Concept of derivatives. Limits and derivatives, L' Hospital's rule .Graphical meaning of derivatives. Derivatives of first and second order and their properties; convex, concave and linear function.
• Application in economics- concept of marginal, Concept of elasticity, Concept of average function

3. Single variable optimization **10 lecture hours**

• Local and global optima; Geometric characterizations; characterizations using calculus. Significance of first and second order conditions.
• Interpretation of necessary and sufficient conditions with examples.
• Applications in Economics- profit maximization and cost minimization.

4. Integration of functions **10 lecture hours**

• Integration of different types of functions;
• Methods of Substitution and integration by parts.

• Applications in economics- obtaining total from the marginal.

5. **Matrix Algebra** **20 lecture hours**

• Matrix: its elementary operations; different types of matrix.
• Rank of a matrix.
• Determinants and inverse of a square matrix.
• Solution of system of linear equations-Cramer's rule; Eigen values and Eigen vectors.
• System of nonlinear equations- Jacobian determinant and existence of solution.
• The concept of comparative statics
• Applications of Matrix Algebra in input-output analysis-the Leontief Static Open Model (LSOM) - the Hawkins-Simon conditions.

6. Game Theory **15 lecture hours**

• Concept of a game, strategies and payoffs
• Zero-sum games- maxmin and minmax solutions
• Dominant Strategy Equilibrium
• Nash equilibrium
• Nash equilibrium in the context of some common games – Prisoners' Dilemma, Battle of Sexes,
•Matching Pennies

Text

Alpha C. Chiang and Kavin Wainwright : Fundamental Methods of Mathematical Economics, Mc Graw Hill, 2005.

Readings:

1. K. Sydsaeter and P. Hammond: *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.
2. Carl Simon and Lawrence Blume: Mathematics for Economics, Norton (1994).
3. G. Archibald and R. Lipsey: An Introduction to Mathematical Treatment of Economics. AITBS (1987).
4. Silberberg ,E. and Suen, W.: The Structure of Economics : A Mathematical Analysis, Third edition, Mc-Graw Hill, 2001
5. Dorfman, R., Samuelson, P.A. and Solow, R.M. , Linear Programming and Economic Analysis, McGraw-Hill, 1958.
6. Mukherji and S. Guha: Mathematical Methods and Economic Theory, Oxford University Press, 2011.

Semester II

Economics Core Course III: INTRODUCTORY MACROECONOMICS

Course Code : (EC_1_2_CC_03) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours : 75

Course Outline

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1. National Income Accounting **20 lecture hours**

Macroeconomic data- Basic concepts of National Income accounting. The circular flow. Concepts of GNP, GDP, NNP, and NDP at market price and at factor cost. The measurement of National Income-

Value Added Method and Expenditure Method, The problem of double counting. The role of Government. Concepts of Corporate Income, Corporate Savings, Personal Income, Personal Disposable Income and Personal Savings. Saving-Investment gap and its relation with budget deficit and trade surplus. National Income accounting and cost of living. Basic idea of India's national income.

2. Income Determination in the Short Run (Part-I) :The Simple Keynesian Model in a Closed Economy 18 lecture hours

The Simple Keynesian Model (SKM) in a Closed Economy without Government- the Keynesian Consumption Function; the Keynesian Saving Function; income determination in SKM; stability of equilibrium; the concept of effective demand- the concept of demand-determined output ; the Simple Keynesian Multiplier; the paradox of thrift; the SKM in a Closed Economy with Government; government expenditure and tax; the government expenditure multiplier and the tax rate multiplier; the balanced budget multiplier; the budget surplus; effects of tax changes and government purchases on budget surplus; the full employment budget surplus.

3. The Classical system 16 lecture hours

Basic ideas of Classical Macroeconomics; Say's Law and Quantity Theory of Money, Loanable fund theory; the Classical Theory of Income and Employment determination; full Employment and wage-price flexibility; Classical Dichotomy and Neutrality of Money.

4. Interaction between commodity market and money market 21 lecture hours

• Construction of the IS and LM curves – Determination of equilibrium value of rate of interest and national income – stability of equilibrium.
• Comparative static analysis – effect of shift of saving, investment, Government expenditure, taxation, money demand, money supply, price level on the IS-LM framework.
• Relative effectiveness of monetary and fiscal policies in terms of IS-LM model.
• Crowding out effect
• Value of multiplier and comparison with simple Keynesian multiplier.

Textbooks:

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. Principles of Macroeconomics, Indian Imprint of South Western by Cengage India, 6th edition, 2015.
3. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 2010.

References

1. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
2. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
3. Venieris, Y.P. and Sebold F.D., Macroeconomics: Models and Policy, John Wiley and Sons,1977.
4. R.E. Hall and D.H. Papell. Macroeconomics. WWW Norton. (6th edition).
5. Ackley Gardner: Macroeconomics : Theory and Policy : Macmillan,1978
6. Sikdar Soumyen, Principles of Macroeconomics, Oxford University Press
7. Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.
8. D'Souza, Erol – Macroeconomics, 2nd Edition, Pearson.

Economics Core Course IV: MATHEMATICAL METHODS IN ECONOMICS - II

Course Code: (EC_1_2_CC_04) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks :100
Total Lecture Hours : 75

1. Function of several variables 14 lecture hours

• Continuous and differentiable functions: partial derivatives and Hessian matrix, Homogeneous and homothetic functions.
• Euler's theorem, implicit function theorem (without proof) and its application to comparative statics problems.
• Economic applications- the idea of level curves, theories of consumer behavior and theory of production.

2. Multi-variable optimization 35 lecture hours

• Optimization of nonlinear functions: Convex, concave, and quasi-concave functions; unconstrained optimization.
• Constrained optimization with equality constraints- Lagrangian multiplier method; role of Hessian determinant.
• Inequality constraints and Kuhn-Tucker Conditions.
• Value function and Envelope theorem; Economic applications – consumer behaviour and theory of production.
• Optimization of linear function: Linear programming; concept of slack and surplus variables (graphical solution only). Concept of convex set. The Duality Theorem
• Economic Applications of Linear programming

3. Difference Equations 12 lecture hours

• Finite difference; Equations of first and 2nd orders and their solutions
• Application in Economics- Cobweb model, Multiplier-Accelerator model.

4. Differential Equations 14 lecture hours

• Solution of Differential equations of first order and second order of linear differential equations.
• Economic application-price dynamics in a single market- multimarket supply demand model with two independent markets.
• Qualitative graphic solution to 2x2 linear simultaneous non-linear differential equation system- phase diagram, fixed point and stability. Economic applications in microeconomics and macroeconomics

Text:

• Alpha C. Chiang and Kavin Wainwright: Fundamental Methods of Mathematical Economics, McGraw Hill, 2005.

References:

1. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002.
2. Carl Simon and Lawrence Blume. Mathematics for Economists, W. W. Norton and Company, 1994
3. A. Mukherji and S. Guha: Mathematical Methods and Economic Theory, Oxford University Press, 2011.
4. Hands, D. W.: Introductory Mathematical Economics, Second Edition,2004.
5. Silberberg, E. and Suen, W.: The Structure of Economics : A Mathematical Analysis, Third edition, Mc-Graw Hill, 2001.
6. K. G. Binmore, Mathematical analysis, Cambridge University Press, 1991.
7. Archibald, G.C. and Lipsey, R.G. , An Introduction to Mathematical Treatment of Economics, 1967, Weidenfeld and Nicolson

8. Henderson, J.M. and Quandt, R.E., Microeconomic Theory: A Mathematical Approach, McGrawHill,1980.
9. Intrilligator, M.D., Mathematical Optimization and Economic Theory, Society for Industrial and Applied Mathematics, Philadelphia, 1971.
10.Allen, R.G.D., Mathematical Analysis for Economists, McMillan, London, 1967 Dorfman, R., Samuelson, P.A. and Solow, R.M. , Linear Programming and Economic Analysis, McGraw-Hill, 1958.
11. Dixit, A.K., Optimization in Economic Theory, Oxford University Press, 1976

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Year II
SEMESTER III
Economics Core Course V: Intermediate Microeconomics –I

Course Code: (EC _2_3_CC _05) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours : 75

Course Outline

1: Theories of Consumer Behaviour and Applications 17 lecture hours
1.1 Inter-temporal choice (saving and borrowing)
1.2Revealed preference
1.3. Choice under uncertainty – utility function and expected utility, risk aversion and risk preference
1.4 Applications of Consumer Behaviour in Construction of Price Indices – Laspeyers and Paasche's Indices

2. Production and Costs 20 lecture hours
2.1 Technology – general concept of Production Function, production with one and two variable inputs, total average and marginal products, short run and long run, returns to factor and returns to scale, Isoquants, marginal rate of technical substitution, isocost line and firm's equilibrium, elasticity of substitution
2.2 Types of production functions- Cobb-Douglas, fixed-coefficient and CES functions
2.3 Cost structure- implicit cost, explicit cost, accounting cost, sunk cost, economic cost, fixed cost,variable cost, total, average and marginal cost. Determinants of short run cost, cost curves, cost minimization and expansion path, short versus long run cost curves, economies of scale.

3. The Firm and Perfect Market Structure 20 lecture hours
3.1 Organization, Firms and Profit Maximization
3.2 Marginal Revenue, Marginal Cost and Profit Maximization
3.3 Perfect competition- short run competitive equilibrium of the firm, short run supply curve of firm and industry, Output choice and competitive equilibrium in long run, Economic rent and profit, long-run industry supply- constant, increasing and decreasing cost.
3.4 Consumer and Producer surplus, welfare and efficiency of competitive equilibrium. Government intervention and dead weight loss, Application- Minimum prices and price supports (price ceiling and price floors)

4. Input Market in Perfect Competition 18 lecture hours
4.1 Basic concepts- derived demand, productivity of an input, marginal product of an input, marginal revenue product
4.2 Marginal productivity theory of distribution
4.3 Labor market-supply of labor, competitive labor markets

4.4 Land markets and rent

Text

1. Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson
2**.** G.S.Maddala and E. Miller, 1989, Microeconomics, Prentice Hall, McGraw Hill International Editions
3. Goon, A.M., Gupta, M.K. and Dasgupta, B.: Fundamentals of Statistics Vol.2,The World Press Pvt. Ltd., Kolkata. (For index number only)

References

1. Hal. R Varian , Intermediate Microeconomics, A modern Approach, WW Norton and Company, 8th edition, 2010 (T)
2. Gravelle, H. and Rees ,R., Microeconomics, Prentice Hall
3. Anindya Sen, Microeconomics, OUP
4. Satya Chakrabarty, Microeconomics, Allied Publishers
5. Ferguson, C. E. and Gould, J.P., Microeconomic Theory, Aitbs Publishers and Distributors, New Delhi.
6.Lipsey, R. and Chrystal, A., 2007, Economics, OUP

Economics Core Course VI: INTERMEDIATE MACROECONOMICS - I

Course Code (EC_2_3_CC_06) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours : 75

1. Aggregate Demand and Aggregate Supply- the Complete Keynesian Model 14 lecture hours

• Derivation of aggregate demand curve.
• Derivation of aggregate supply curves both in the presence and absence of wage rigidity.
• Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies. Effects of wage cut.
• Unemployment equilibrium and its causes- possible solutions including real balance effect.

2. Keynes vs. Classics 10 lecture hours

• Keynesian vs classical system.
• Hybrid models under Classical/Keynesian framework.
• Friedman's restatement of classical ideas.

3. **Money Supply, Monetary Policy and Government Budgetary Operations 17 lecture hours**

• Measures of money supply with special reference to India (M_1,M_2, M_3 and M_4)
• Balance sheet view of money supplied by the banking sector as a whole
• High powered money –definition
• Balance sheet of Reserve Bank of India and High powered money
• Balance sheet of Commercial banks and basic ideas of money multiplier theory.
• Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply
• Interest sensitivity of money supply and the slope of the LM curve.

4. **Monetary policy** – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate.
• Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy.

5. Inflation, Unemployment and Expectations **20 lecture hours**

• The concept of Inflationary Gap.
• Demand pull vs. Cost push inflation
• Mark-up inflation
• The concept of stagflation
• Central Bank's role in controlling inflation: Monetary policy.
• Inflation and unemployment trade-off.
• Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model.
• Deriving the Phillips Curve from Aggregate Supply Curve.
• Short run and long- run Phillips curve – role of adaptive expectations and rational expectations.
• Disinflation, Sacrifice Ratio and policy ineffectiveness.

Textbooks:

• Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
• N. Gregory Mankiw. Macroeconomics, Worth Publishers, 2010

References

• Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
• Ackley Gardner (old), Macroeconomic Theory, Macmillan, 1961
• Ackley Gardner(new), Macroeconomics : Theory and Policy : Macmillan,1978
• Ghosh Chandana and Ghosh Ambar, Macroeconomics, PHI Learning Pvt Ltd, 2014
• Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
• Venieris, Y.P. and Sebold F.D. , Macroeconomics: Models and Policy, John Wiley and Sons, 1977
• Richard T. Froyen, Macroeconomics, Pearson Education Asia, 10th edition, 2016.
• William Branson. Macroeconomic Theory and Policy, Indian reprint, East West Press, 3rd edition, 2014.
• Levacic Rosalind and Rebmann Alexander, Macroeconomics: An Introduction to Keynesian and Neo-Keynesian Controversies, Palgrave Macmillan, 1982.
• Sikdar Soumyen, Principles of Macroeconomics, Oxford University Press
• Blaug Mark , Economic Theory in Retrospect, 5th Edition, Cambridge University Press, 1997
• Mueller, M. (edited), Readings in Macroeconomics, London: Holt, Rinehart and Winston, 1973.

Economics Core Course VII: Statistical Methods for Economics

Course Code: (EC _2_3_CC _07) **Total Credit : 6 (5 Theory + 1 Tutorial)** **Full Marks: 100**
Total Lecture Hours: 75

Course Outline

1. Introduction and Overview **6 lecture hours**

The distinction between populations and samples and between population parameters and sample statistics; the use of measures of location and variation to describe and summarize data; population moments and their sample counterparts

2. Descriptive Statistics **13 lecture hours**

• Measures of central tendency(arithmetic mean, geometric mean, harmonic mean, median and mode, and their properties, Quartiles, Deciles and Percentiles) • Dispersion(range, quartile deviation, mean deviation, standard deviation, coefficient of variation, coefficient of mean deviation, coefficient of quartile deviation, Lorenz curve and Gini coefficient)

•Moments, Skewness and Kurtosis (definition, computation)
• Correlation and Regression (definition, computation, properties)

3. Elementary Probability Theory **10 lecture hours**

• Sample spaces and events (concepts and definitions using set theory)
• Axiomatic definition of probability and properties, theorem of total probability
• Conditional probability, theorem of compound probability
• Bayes' theorem and its applications.

4. Probability Distributions **18 lecture hours**

• Random variable (discrete and continuous)
• Probability distributions (pmf, pdf. Distribution functions)
• Expected values of random variables (mean, variance, raw moment, central moment, moment generating functions)
• Properties of commonly used discrete and continuous distributions: Binomial -(derivation of pmf, mean,variance, moments, moment generating functions, problems- Poisson - (derivation of pmf, mean, variance, moments, moment generating functions, problems).
Normal - (derivation of pdf, mean, variance, moments, moment generating functions, problems) • Joint distribution functions of random variables (discrete and continuous) - joint pdf (pmf), marginal pdf (pmf)., conditional pdf (pmf)

5. Sampling **14 lecture hours**

• Principal steps in a sample survey (concepts of population, sample, parameter, statistic)
• Methods of sampling- SRSWR, SRSWOR (use of random sampling numbers) -Stratified sampling (basic concepts only) -Multi-staged sampling (basic concepts only)
• Sampling distribution of sample mean and sample proportion- Mean and standard error both in SRSWR and SRSWOR
Standard normal, chi-square, Student's t and F distributions – definitions, important properties (mean and variance)

6. Statistical inference **14 lecture hours**

• Point estimation-Properties of a good estimator;
• Basic principles of Ordinary Least Square,
•Maximum Likelihood Method
•Method of Moments;
• Interval estimation.
• Testing of hypothesis (basic concepts of null hypothesis, alternative hypothesis, type I and Type II errors, power of a test, p-value)

References:

1. Goon, Gupta and Dasgupta – Fundamental of Statistics, Vol. I & II
2.Yule and Kendall – An Introduction to the Theory of Statistics
3.Gupta and Kapoor – Fundamental of Mathematical Statistics.
4.N. G. Das – Statistical Method (Part I & II)

Skill Enhanacement Course –I SEC 1

The students are required to choose any one from the two

Course Code: (EC_2_3_SEC_1A/B) **Total Credit : 2**

SEC_1A:Basic Computer Applications

Full Marks: 50 **Credit: 2** **Lectures: 15 + Practical: 15**

It is a Lab Based Practical Paper. The student shall learn the operations through Lectures, Hands-on Practical Training followed by practical tests.

1. File Creation and Management System **(3 L + 2 P)**

The File Tree; File Naming Conventions;

2. Word Processing **(2L + 3P)**
Basic features of Text formatting; Creating documents; Heading Styles; Creating Reference Lists

3. Spread Sheet Solutions **(7L + 7P)**
Basic features of Spreadsheets; Data entry, Mathematical Functions, Financial functions, Statistical Functions, Creating simple Line, Bar and Pie charts;

4. Presentations **(3L + 3P)**
Creating Presentations; Pasting Charts etc in Presentations; Exporting Presentations as PDF

References:
1.MS Office e2007 for Dummies –Wang Wallace, Wiley Publishing House
2.Data Analysis Using Microsoft Excel – Ash Narayan Sah Excel Books India
3.Excel 2010 For Dummies Colin Banfield, John Walkenbach

OR

SEC_1B: MANAGERIAL ECONOMICS

Full Marks: 50 **Credit: 2** **Lectures: 30**

1. Meaning and Scope of Managerial Economics - **(Lectures:10)**

Organisational Goals – Profit maximization hypothesis, Critique of profit maximization hypothesis-alternative goals of the firm – Managerial theories- Baumol, Williamson, Behavioural Theory of the Firm.
2. Demand Analysis: **(Lectures:5)**
Demand forecasting, Methods of demand forecasting: Survey Method, Statistical Methods – Trend Projection method, Regression Method, Leading Indicator Method. (Simple numerical problems)
3. Price determination under different structures: **(Lectures:10)**

Methods of price determination in practice – Mark up pricing, Limit pricing, Average cost pricing, Peak load pricing, Multiple product pricing, Transfer pricing.(Simple numerical problems).

4. Financial Investment decisions: (**Lectures:5)**

Distinction between real and financial assets, Needs of financial investment, Alternative financial instruments and investments.

References:

1. Koutsoyiannis .A: Modern Microeconomics, MacMillan.
2. Hague: Managerial Economics, ELBS.
3. Cyert and March: A Behavioural Theory of the Firm, Prentice Hall.
4. Henderson and Quandt: Microeconomic Theory. McGraw Hill
5. Stonier and Hague: A Text Book of Economic Theory, ELBS.
6. Baumol : Economic Theory and Operation Analysis, Prentice Hall.
7. Maheswari and Varsheny : Managerial Economics, S.Chand & Co.
8. Thomas. C.R., Maurice, S.C., Sarkar, S : Managerial Economics , Tata McGraw Hills.
9. Peterson, C.H., Lews, W.C, Jain, S.K : Managerial Economics ,Peason Edition.
10. Mithani, D.M : Managerial Economics- Theory and Applications, Himalya Publishing House.
11. Damodaran, S.: Managerial Economics, Oxford University Press.,New Delhi.
12. Mehta, P.L.: Managerial Economics – Analysis, Problems and Cases, S. Chand and Sons.
15. Chiang: Fundamental Methods of Mathematical Economics, McGraw Hill.
16. Madnani : Quantitative Microeconomics, Oxford and I.B.H Publishing Company.
18. Ferguson and Gold: Microeconomic Theory, Richard d. Irvin Inc.
19. Lipsey: An Introduction to Positive Economics, ELBS.

SEMESTER IV

Economics Core Course VIII: Intermediate Microeconomics II

Course Code: (EC_2_4_CC_08) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks : 100
Total Lecture Hours : 75

1: Imperfect Market Structure **40 lecture hours**

1.1 Monopoly and barriers to entry- output determination and price rule, measure and sources of monopoly power, social costs of monopoly power-deadweight loss

1.2 Pricing with market power- first, second and third degree price discrimination, multiplant monopoly

1.3 Monopolistic competition- short run and long run equilibrium, excess capacity

1.4 Oligopoly- Oligopoly equilibrium as Nash equilibrium, Cournot, Bertrand and Stackelberg Model- use of isoprofit curves and simple game theoretic interpretation. Sweezy‘s kinked demand curve model and non-collusive equilibrium. Competition versus collusion- the Prisoners‘ Dilemma. Collusive oligopoly –Cartels and Price Leadership

2: Input market under Imperfect Competition **5 lecture hours**

2.1 Monopsony, bilateral monopoly in labour market

3: General Equilibrium, Efficiency and Welfare **30 lecture hours**

3.1 General Equilibrium and Economic Efficiency- Exchange, production and welfare, Pareto Optimality, Edgeworth box and contract curve, Pareto efficiency and perfect competition

3.2 Reasons for Market failure, Pareto efficiency and market failure (externalities and public goods), property right and Coase Theorem
3.3 Markets with asymmetric information-adverse selection, moral hazards, agency problems (concepts only)

Text

• Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson

References

1. Hal. R Varian , Microeconomic Analysis, WW Norton and Company, 3rd edition, 2013
2. J Tirole, Theory of Industrial Organisation, MIT Press, 1988
3. K Binmore, Fun and Games: A text on Game Theory, OUP,1991
4. Anindya Sen, Microeconomics, OUP
5. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning, 2010
6. Satya Chakrabarty, Microeconomics, Allied Publishers
7. Ferguson, C. E. and Gould, J.P., Microeconomic Theory, Aitbs Publishers and Distributors, New Delhi.
8. Cohen, K.J. and Cyert, R.M. , ―Theory of the Firms: Resource Allocation in a Market Economy‖ , Prentice Hall India,1981
9. Chauhan, S.P.S. , ― Microeconomics- An Advanced Treatise‖, Prentice Hall India, 2009.

Economics Core Course IX : Intermediate Macroeconomics II

Course Code (EC_2_4_CC_09) Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours: 75

1. Basic Tenets of New Classical and New Keynesian Theories 20 lecture hours

• New Classical Theory-The concept of rational expectations and the theory of real business cycle introductory ideas
• New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing-introductory ideas

2. Microeconomic Foundations of Macroeconomics -II 20 lecture hours

• Consumption: Keynesian consumption function; Fisher‘s theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry‘s relative income hypothesis; rational expectations and random-walk of consumption expenditure.
• Demand for money: Regressive Expectations and Tobin‘s portfolio choice models; Baumol‘s inventory theoretic money demand.

3. Economic Growth 35 lecture hours

• Harrod and Domar models of economic growth.
• Solow one sector growth model-golden rule- -dynamic efficiency.
• Technological progress,
• Elements of endogenous growth theory-basic ideas-the AK model

Textbooks:

• N. Gregory Mankiw. Macroeconomics, Worth Publishers, 2010
• Ghosh Chandana and Ghosh Ambar, Macroeconomics, PHI Learning Pvt Ltd, 2014

References

• Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
• Romer David , Advanced Macroeconomics, McGraw Hill Education, 4th edition, 2011.
• Ghosh Chandana and Ghosh Ambar, Economics of the Public Sector, PHI Learning Pvt Ltd, 2008

• Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
• Richard T. Froyen, Macroeconomics, Pearson Education Asia, 10th edition, 2016.
• Steven M. Sheffrin, Rational Expectations, Cambridge University Press, 2nd edition, 1996.
• William Branson. Macroeconomics , Harper and Row, 3rd edition, 1989
• Snowdon and Vane (ed), A Macroeconomics Reader, Routledge, Taylor and Francis Group.
• R. Barro. Macroeconomics, 5th edition, The MIT Press, 1989
• A.K.Sen (ed). Growth Economics, Penguin, 1970
• Barro, R.J. and Xavier Sala-i-Martin , Economic Growth,
• Errol D'Souza. Macroeconomics, Pearson Education (New Delhi), 2009.
• Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
• Laidler, E.W. ,The Demand for Money : Theories and Evidence, Dun-Donnelley Publishing Corporation, New York, 1978.

Economics Core Course X: INTRODUCTORY ECONOMETRICS

(EC_2_4_CC_10) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours : 75

Course Outline

1. Nature and Scope of Econometrics 4 lecture hours
1.1 Distinction between Economic Model and Econometric model
1.2 Concept of stochastic relation, Role of random disturbance in econometric model
1.3 Types of data
1.4 Application of Econometrics in different branches of social science

2. Classical Linear Regression Model (Simple linear regression and multiple linear regression): part 1 15 lecture hours
2.1 The classical assumptions (basic interpretation)
2.2 Concepts of population regression function and sample regression function
2.3 Estimation of model by method of ordinary least squares (Derivation in simple linear model (SLRM) and multiple linear model (MLRM) with two regressors only)
2.4. Simple correlation, partial correlation and multiple correlation (Definition, and interpretation in the context of SLRM and MLRM)
2.5 Limitations of SLRM and additional complications in MLRM
2.6 Economic interpretations of the estimated model

3. Classical Linear Regression Model (Simple linear regression and multiple linear regression): part 2 10 lecture hours
3.1 Properties of the Least Squares Estimators (BLUE) in SLRM- Gauss-Markov theorem
3.2 Qualitative (dummy) independent variables – intercept dummy and slope dummy (only interpretation of the model)
3.3 Forecasting - Ex-post forecast and Ex-ante forecast, forecast error (only for two variable model)

4. Statistical inference in linear regression model 26 lecture hours
4.1 Use of standard normal, chi^2, t, and F statistics in linear regression model
4.2 Testing hypothesis Single test (t test and chi2 test)-Joint test (F test)
4.3 Goodness of fit (in terms of R^2, adjusted R^2 and F statistic), Analysis of Variance (ANOVA)
4.4 Statistical significance and economic importance

5. Violations of Classical Assumptions 12 lecture hours

5.1 Multicollinearity - Consequences, Detection (Variance Inflationary Factor (VIF)) and Remedies
5.2 Heteroscedasticity - Consequences, Detection (Lagrange Multiplier test)
and Remedies
5.3 Autocorrelation - Consequences, Detection (Durbin-Watson test) and Remedies *[4 lecture hours]*

6. Specification Analysis **8 lecture hours**

6.1 Omission of a relevant variable
6.2 Inclusion of irrelevant variable
6.3 Tests of specification errors
6.4 Testing for linearity and normality assumptions

Text Books

1.Gujarati, Damodar (2004), *Basic Econometrics*, McGraw-Hill
2.Wooldridge, Jeffrey M. (2013), *Introductory Econometrics* – A Modern Approach, CENGAGE learning

Reference Books

1. Maddala, G. S. (2002), *Introduction to Econometrics*, Macmillan Publishing Company
2. Goon, A. M, Gupta, M. K, and Dasgupta, B., *Fundamentals of Statistics* (Volume One), The World Press Private Ltd

SKILL ENHANCEMENT COURSE –II (SEC-II)

The students are required to choose any one from the two

Course Code: (EC_2_4_SEC_2A/B) **Total Credit : 2**

SEC_2A:Data Analysis

Full Marks: 50 **Credit: 2** **Lectures: 15 + Practical: 15**

1: Collection and representation of data **(6L+7P)hours**

1.1 Collection of data (some methodological issues)
1.1.1 Census
1.1.2 Sample survey
1.2 Representation of data
1.3 The basics of data management in Stata / R / Eviews / SPSS / MS Excel

2: Indian Official Statistics (Basic concepts) (8L+9P) hours

1. Central Statistical Office (CSO) – National Accounts Statistics (NAS), Industrial Statistics (ASI, IIP)
2. National Sample Survey Office (NSSO) – Household Consumer Expenditure Survey Rounds, Employment and Unemployment Survey Rounds
3. Census of India – Population Census 2011
4. Reserve Bank of India (RBI) – Handbook of Statistics on Indian Economy (Selected parts)

Suggested Readings:

1. Goon, A. M, Gupta, M. K, and Dasgupta, B. *Fundamentals of Statistics (Volume One)*, The World Press Private Ltd
2. GOI, *Note on Sample Design and Estimation Procedure of NSS 68th Round*, National Sample Survey Office, Ministry of Statistics and Programme Implementation.

GOI, *SRS Statistical Report 2016*, Office of the Registrar General & Census Commissioner, India

Suggested Websites

www.mospi.nic.in
www.censusindia.gov.in
www.rbi.org.in

SEC 2B: Research Methodology

Full Marks: 50 **Credit: 2** **Lectures Hours: 30**

1 : Methodological Issues 1 **10 lecture hours**

• Locating the basic issues- theme based literature survey and motivation behind any study objectives of the study-development of writing skills
• Designing the sampling frame in case of field survey- the role of pilot survey
• The role of random numbers in drawing random sample
• Methods behind preparation of questionnaire in case of field survey
• Data entry after field survey
• Tabular representation of data and graphs for data interpretation

2: Methodological Issues 2 **20 lecture hours**

• Theoretical and Empirical Research in Economics.
• Common sections of an ideal research paper in Economics.
• Illustrations of empirical research work. Reporting the regression results and interpretation of the results: the role of statistical inference.[The course instructor should focus on framing the testable hypothesis and the role of statistical inference in empirical research]
• Illustrations of theoretical research: specification of the model, closing the model, checking stability of the model for meaningful comparative static results. [The course instructor should focus on the role of stability analysis in theoretical models by showing the method of linearizing non-linear differential equations. Illustrations can be made from IS-LM model by using trace and determinant conditions of the Jacobian matrix-the role of phase diagrams]
• Role of footnotes or end notes in a research paper
• Bibliography, reference and citation
Writing the abstract of a research paper
• Key words and JEL Classification
• Presentation of a research paper through power point. Basic rules to be followed for a good presentation. Role of diagrams, graphs, pictures and charts.

Suggested Readings

1. Goon, A. M, Gupta, M. K, and Dasgupta, B. Fundamentals of Statistics (Volumes One and Two),The World Press Private Ltd
2. C.R. Kothari : Research Methodology : Methods and Techniques (second revised edition), New Age India (P) Ltd Publishers.
3. Alpha C. Chiang and Kavin WainWright : Fundamental Methods of Mathematical Economics, McGraw Hill, 2005.[For stability analysis]

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Year III

Semester V

Economics Core Course XI: International Economics

Course Code: (EC_3_5_CC_11) Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours : 75

1. Absolute and Comparative Advantages of Trade 9 lecture hours

• Adam Smith's theory of absolute advantage.
• David Ricardo's theory of comparative advantage.
• Arbitrage as the basis and direction of trade; fundamental sources of cross-country price differences and arbitrage-concept of comparative advantage; externalities, regulation and perverse comparative advantage
• One factor economy, production possibility frontier, relative demand and relative supply, terms of trade, trade in the Ricardian world, determination of intermediate TOT, complete vs incomplete specialization, complete specialization and gains from trade.

2. The Building Blocks of Trade Theory 14 lecture hours

• The concept of community indifference curve-Justification and properties.
• The need for trade indifference curves, derivation of trade indifference curves, properties of trade Indifference map, Offer curves and its properties. Three important elasticities- the elasticity of offer curves, the elasticity of demand for imports, the elasticity of supply of exports. International equilibrium and offer curves, terms of trade (TOT) and stability, the Marshall-Lerner condition, • Gains from Trade (GFT) theorem, illustration of GFT, decomposition of GFT, substitution possibilities and magnitude of GFT.
• Production structure for neo-classical trade models, role of constant returns to scale, the concept of unit isoquants, duality in the production structure, significance of the envelope condition in trade models

3. Factor Endowment and Trade (Heckscher-Ohlin-Samuelson Model) 15 lecture hours

• Heckscher-Ohlin (HO) theorem and price vs physical definitions of relative factor abundance.
• Role of homotheticity of tastes in the context of physical definition
• Factor Intensity Reversal in the context of price and physical definitions and invalidity of HO Theorem.
• Factor intensity ranking, one-to-one correspondence between commodity price ratio & factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczyski theorem) .
• The Factor Price Equalization Theorem. Factor price equalization and complete specialization.
• Incomplete Specialization, Factor price equalization and Factor Intensity Reversal
• Empirical studies- Leontief Paradox.

4. Applications of Neo-classical Trade Models for developing countries 10 lecture hours

• Jones (1965) Heckscher-Ohlin type 2x2(two factors-two commodities) full employment model for small open developing economies. Basic structure –significance of the assumption of constant returns to scale-the decomposability property-the capital intensity condition in physical and value terms- Implications of Stolper-Samuelson and Rybczynski theorems-the price and output magnification effects.
• Jones (1971) 3x2(three factors-two commodities) specific-factor model. Basic structure significance of the assumption of constant returns to scale-the indecomposability property. Implications of price magnification effects in specific factor model.

5. Trade Policy 12 lecture hours

• Partial Equilibrium Analysis of Tariff - cost–benefit, Quota, Quota- Tariff equivalence & nonequivalence, monopoly effects of quota, subsidy and voluntary export restraint.

• General Equilibrium Analysis- distinction between large and small economy, welfare effects of a tariff on small country and large country. Tariff ridden offer curve, Tariff war, Optimum tariff for large economy, Metzler's Paradox.

6. Open Economy Macroeconomics and Balance of Payments 15 lecture hours

• Determination of equilibrium income in open economy. Foreign Trade Multiplier with & without repercussion effects.

Balance of Payment accounts in an open economy. Autonomous and accommodating transactions.

• Fixed &Flexible Exchange Rates: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, The Mundel-Fleming Model (IS LM BP model)

Texts

1. P. Krugman and M. Obstfeld- International Economics (8th Edition) ; Pearson Education
2. R. Caves, J. Frankel and R.W. Jones – World Trades & Payments (9th Ed); Pearson Education.
3. Rajat Acharyya- International Economics; Oxford University Press

References

• J.R. Markusen, J.R. Melvin, W.H. Kaempfer, K.E. Maskus – International Trade – Theory and Evidence, McGraw Hill
• B. Sodersten, and G. Reed (1994) : International Economics , Macmillan, London, 3rd edition.
• M. Chacoliades (1978) : International Trade: Theory and Policy, New York, McGraw- Hill
• R. Dornbusch : Open Economy Macroeconomics, Basic Books, Inc. Publishers, New York**.**
• Jones, R.W. : ― The Structure of Simple General Equilibrium Models‖, Journal of Political Economy, Vol 73, 1965, pp 551-572
• Jones, R.W. : ― A Three Factor Model in Theory, Trade and History‖, in Bhagwati. J. et al (eds) Trade, Balance of Payments and Growth, 1971, North Holland, Amsterdam.
• Chaudhuri, S. and Mukhopadhyay, U.: Foreign Direct Investment in Developing Countries: A Theoretical Evaluation, Springer, Chapter 2 only, 2014.

Economics Core Course XII: Indian Economy

Course Code : EC_3_6_CC_12 Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours: 70

Course Outline.

1. Economic Development since Independence (Lectures:15)

Major features of the economy at independence; Planning: Evolution of India's development goals and strategies -Structural constraints and Indian development strategy: Debates between Growth and distribution, Public sector vs. Private sector, Consumer goods vs. Capital goods, Import substitution vs. Export promotion ; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural changes, savings and investment including the saving-investment paradox Population and Human Development .

2. Population and Human Development (Lectures:10)

Demographic trends and issues; education; health and malnutrition

3. Development and Distribution (**Lectures:10)**

Trends and policies in poverty including Sen's Entitlement Analysis; inequality and unemployment

4. Macroeconomic Policies and Their Impact **(Lectures:15)**

Objectives of Fiscal Policy. Centre – State financial relation. Composition of govt. revenue and expenditure. Tax reforms since 1991. Public debt. Objectives of RBI's monetary policy. Structure of Indian money market. Bank Nationalization and its achievements. Banking and insurance sector reforms since1991. Capital market and its reforms since1991, Labour regulations Fiscal Policy; trade and investment policy; Financial and Monetary Policies

5. Policies and Performance in Agriculture **(Lectures:10)**

Growth: productivity, agrarian structure and technology; capital formation; trade; pricing and procurement

6. Policies and Performance in Industry **(Lectures: 10)**

Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment

Reference Books

•Dutt and Sundaram (latest Ed.) "Indian Economy"
•Misra and Puri (latest ed.) "Indian Economy"
•Bhagwati and Chakraborty "Contributions to Indian Economic Analysis"
•Dhingra,I.C "Indian Economy"
•Bhagwati and Chakraborty "Contributions to Indian Economic Analysis"
•Chakraborty "Development Planning: The Indian Experience"
•Wadhva "Some Problems of India's Economic Policy"
•Lucas and Papanek "Indian Economy"
•Jalan "Indian Economic Crisis"
•Nayaar Dipak"On Economic Liberalization"
•Kapila Uma"Indian Economy"
•Rakesh Mohan, 2008, ―Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, Economic and Political Weekly, May.
•S.L. Shetty, 2007, ―India's Savings Performance since the Advent of Planning, in
•K.L. Krishna and A. Vaidyanathan, editors, Institutions and Markets in India's Development.
•Himanshu, 2010, Towards New Poverty Lines for India, Economic and Political Weekly, January.
•Jean Dreze and Angus Deaton, 2009, Food and Nutrition in India: Facts and Intepretations, Economic and Political Weekly, February.
•Himanshu. 2011, ―Employment Trends in India: A Re-examination, Economic and Political Weekly, September.
•Rama Baru et al, 2010, ―Inequities in Access to Health Services in India: Caste, Class and Region, Economic and Political Weekly, September.
•Geeta G. Kingdon, 2007, ―The Progress of School Education in India, Oxford Review of Economic Policy
•J.B.G. Tilak, 2007, ―Post Elementary Education, Poverty and Development in India, International Journal of Educational Development.

•T. Dyson, 2008, ―India‘s Demographic Transition and its Consequences for Development- in Uma Kapila, editor, Indian Economy Since Independence, 19th edition, Academic Foundation.
•KaushikBasu, 2009, ―China and India: Idiosyncratic Paths to High Growth,Economic and Political Weekly, September. 2009
•K. James, 2008, ―Glorifying Malthus: Current Debate on Demographic Dividend in India- Economic and Political Weekly, June.
•Reetika Khera, 2011, ―India‘s Public Distribution System: Utilisation and Impact -Journal of Development Studies.
•Aniruddha Krishna and Devendra Bajpai, 2011, ―Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, Economic and Political Weekly, September.

DISCIPLINE SPECIFIC ELECTIVE-I (DSE-I)

(For the students of 3rd Semester)

Paper Code: EC_3_5_DSE_1 A/B Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100
Total Lecture Hours: 70

The student needs to choose one Course from 1A or 1B

DSE 1A: Economics of Social Sector

1. Introduction (Lectures: 12)
Components of Social Economics, Evolution of the concept of Human Development, Role of Health and Education in Human Development, Poverty alleviation, health and education outcomes and their relationship with economic development, Human Development Index.
2. Microeconomic Foundations of Health Economics (Lectures: 06)
Demand for health; uncertainty and health insurance market; market failure and rationale for public intervention;
3. Evaluation of Health Programs (Lectures: 06)

Costing, cost effectiveness and cost-benefit analysis; burden of disease.
Health outcomes; health systems; health financing, Gender gap in health issues
4. Education: Investment in Human Capital and Indian experience Lectures: 24)
Rate of return to education: private and social; quality of education; signalling or human capital; literacy and drop- out rate. Gender differential in educational achievement
5. Meaning of gender inequality and major gender gap (Lectures: 16)

Key definition, key pattern of gender gaps, Endangering development theories -Gender development index and gender empowerment index , Mainstreaming gender into development policies, gender differential in intra-household resource allocation.
6. Women as decision making unit (Lectures: 06)

Factors affecting decision making by women, property right, access to and control over resources

References

1.William, Jack, Principles of Health Economics for Developing Countries, World Bank Institute Development Studies, 1999.

2. World Development Report, Investing in Health, The World Bank, 1993.

3. Ronald G., Ehrenberg and Robert S., Smith, Modern Labour Economics: Theory and Public Policy, Addison Wesley, 2005.

4. Krishnaraj M, .R.M Sudarshan and A Sheriff, "Gender, Population and Development."

5. Human Development Reports: various issues .

6. Various articles and reports to be provided based on current devlopements

DSE 1B: FINANCIAL ECONOMICS

Course Outline

1. Investment Theory and Portfolio Analysis

a. 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.

b. Single-period random cash flows

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.

c. 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.

2. Options and Derivatives

Introduction to derivatives and options; forward and futures contracts; options; other derivatives; forward and future prices; stock index futures; interest rate futures; the use of futures for hedging; 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.

3. Corporate Finance

Patterns of corporate financing: common stock; debt; preferences; convertibles; Capital structure and the cost of capital; corporate debt and dividend policy; the Modigliani- Miller theorem

Readings:

1. David G. Luenberger, *Investment Science*, Oxford University Press, USA, 1997.

2. Hull, John C., *Options, Futures and Other Derivatives*, Pearson Education, 6th edition, 2005.

3. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri**,** *Financial Theory and Corporate Policy*, Prentice Hall, 4th edition, 2003.

4. Richard A. Brealey and Stewart C. Myers, *Principles of Corporate Finance*, McGraw-Hill, 7th edition, 2002.

5. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, *Fundamentals of Corporate Finance.* McGraw-Hill, 7th edition, 2005.

6. Burton G. Malkiel, *A Random Walk Down Wall Street*, W.W. Norton & Company, 2003.

7. William Sharpe, Gordon Alexander and Jeffery Bailey, *Investments*, Prentice Hall of India, 6th edition, 2003.

DISCIPLINE SPECIFIC ELECTIVE- II [DSE –II]

(For the students of 3rd Semester)

Paper Code: EC_3_5_DSE_2 A/B **Total Credit: 06** **Full Marks: 100**

The student needs to choose one Course from 2A or 2B

DSE 2A: APPLIED ECONOMETRICS

This is a lab based subject

Total Practical Hours: 70, No of Practical Classes: 35

1. Steps in empirical research **10 lecture hours**

1.1 Use of econometric models in empirical research – some basic concepts

1.2 The basic commands in Stata / EViews/SPSS

2. Regression Diagnostics and Specification **20 lecture hours**

2.1 Misspecification

2.2 Functional forms

2.3 Model selection

2.4 Application with Stata / Eviews/SPSS

3. Application of Regression Analysis **30 lecture hours**

3.1 Cross section analysis – Linear regression model with two regressors (by using survey data like NSSO with Stata /Eviews/SPSS)

3.2 Time series analysis (very preliminary level) – Basic concepts of time series, Estimating linear trend (by using NAS with Stata / Eviews/SPSS)

3.3 Panel data analysis – basic concepts of fixed effects model; random effects model – (Application with Indian Official Statistics using Stata / EVIEWS/SPSS)

Applications of use of softwares STATA or EVIEWS or SPSS will be demonstrated in the computer laboratory in practical classes and the practical examination will be conducted in the usual manner as mentioned in course structure.

Text Books

1. Christopher F. Baum, (2006), An Introduction to Modern Econometrics Using Stata, Stata Press

2. Maddala, G. S. (2002), Introduction to Econometrics, Macmillan Publishing Company

3. Wooldridge, Jeffrey M. (2013), Introductory Econometrics – A Modern Approach, CENGAGE Learning

4. Hamilton L. Statistics with Stata

References

STATA USER'S GUIDE RELEASE 13, https://www.stata.com/manuals13/u.pdf

DSE 2B :Economic History of India (1857-1947)

Total No of Lecture hours: 75 Credit : 06 (5 Lecture + 1 Tutorial)

1. Impact of British rule on India **30 lecture hours**

• Deindustrialization
• Commercialization of agriculture
• Economic Drain

2. Aspects of Economic Policies in British India **45 lecture hours**

• Land policy
• Policy of Discriminating Protection
• Early Industrial Development and Managing Agency System
• Currency and monetary policy
• Development of Infrastructure – Railways

References

1. Lakshmi Subramanian, ―History of India 1707-185, Orient Blackswan, 2010, Chapter 4.
2. SumitGuha, 1991, Mortality decline in early 20th century India‖, Indian Economic and Social History Review (IESHR), pp 371-74 and 385-87.
3. Tirthankar Roy, The Economic History of India 1857-1947, Oxford University Press, 3rd edition,2011.
4. B. Chandra B. (2010): Rise and Growth of Economic Nationalism in India, HarAnand Publications,
5. J. Krishnamurty, Occupational Structure, Dharma Kumar (editor), The Cambridge Economic History of India, Vol. II, (henceforth referred to as CEHI), 2005, Chapter 6.
6. IrfanHabib, Indian Economy 1858-1914, A People‘s History of India, Vol.28, Tulika, 2006
7.Ira Klein, 1984, ―When Rains Fail: Famine relief and mortality in British India IESHR 21.
8. Jean Dreze, Famine Prevention in India in Dreze and Sen (eds.) Political Economy of Hunger, WIDER Studies in Development Economics, 1990, pp.13- 35.
9. John Hurd, Railways, CEHI, Chapter 8, pp.737-761.
10. Rajat Ray (ed.), Entrepreneurship and Industry in India, 1994.
11. AK Bagchi, ―Deindustrialization in India in the nineteenth century: Some theoretical implications Journal of Development Studies, 1976.
12. MD Morris, Emergence of an Industrial Labour Force in India, OUP 1965, Chapter 11, Summary and Conclusions.
13. K.N. Chaudhuri, Foreign Trade and Balance of Payments, CEHI, Chapter 10.
14. B.R. Tomlison, 1975, India and the British Empire 1880-1935, IESHR, Vol.XII.
15. Dharma Kumar, The Fiscal System, CEHI, Chapter 12.
16. Basudev Chatterjee, Trade, Tariffs and Empire, OUP 1992, Epilogue.
17. Daniel Thorner, Agrarian Prospect in India, 1977.
18. Visaria and P. Visaria, Population. CEHI, Chapter

Semester VI

Economics Core Course XIII : Development Economics

Course Code: EC_3_5_CC_13 Total Credit : 6 (5 Theory + 1 Tutorial) Full Marks : 100

Total Lecture Hours : 75

1. Economic Development (15 Lectures)
Different concepts of development –Sustainable development, Participatory development, Inclusive development, Human development, Growth and Development–Broad Indicators of Economic Development–Per capita Income–PQLI –Basic needs approach–Human Development Index–Gender Development Index–Gender Empowerment Measure–Human Poverty Index.

2. Development and Underdevelopment as a Historical Process (12 Lectures)

Dependency theory of Baran – Frank's Theory of colonial exploitation – Merchant Capital in shaping underdevelopment (Kay) – Emmanuel's theory of unequal exchange.

3. Persistence of Underdevelopment and Way to Develop (**30 Lectures**)
Characteristics of underdevelopment – Obstacles to underdevelopment – Trap Models – Vicious circle of poverty – Critical minimum effort thesis – Low level equilibrium trap – Process of cumulative causation – Concept of surplus labour – Surplus labour as potential saving – Economic development with unlimited supplies of labour (Lewis Model).

4. Development Strategy (**8 Lectures**)

Capital intensive Vs Labour intensive technique – Choice of technique in a labour surplus economy – Sustainable development.
5. Migration and Development – Haris-Todaro Model (**5Lectures)**
6. Poverty and Inequality (**5 Lectures**)

Absolute and Relative Poverty- poverty line - poverty measurement: Head Count Ratio, Income Gap Approach- HPI- Inequality axioms- Common Measures of Inequality-Gini index.

References:
1. A.P Thirlwall: Growth and Development
2. Debraj Roy: Development Economics
3. Meier(ed): Leading Issues in Economic Development
4. K. Basu: Analytical Development Economics, OUP
5. Debesh Bhattacharya: Political Economy of Development
6. Pearce and Turner: Economics of Natural Resources and the Environment
7. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee: Understanding Poverty, OUP, 2006
8. Todaro and Smith: Economic Development, Pearson Education, 2009

Economics Core Course XIV : Field Survey and Project Report

Course Code: EC_3_6_CC_14 Credit: 6 (L 30 + P: 40)
Full Marks: 100 (Project Report: 70 Marks) (Viva-Voce: 30 Marks)

This is a Project Paper where the Students will make a Field Visit to collect Primary information followed by analysis of data and writing a project report with support from the faculty members. Ideally there should be 10 classroom lectures to prepare the students for Field Survey and to train them for Report Writing. Remaining should be Field Visits and Report Writing.
The project report should ideally cover the following areas:
Introduction – Motivations – Literature Review – Objectives – Methodology –Results– Policy Suggestion – Bibliography

Project to be done on a small Primary sample of size 30 or more observations.
Proposed Guidelines
1. The University shall arrange for a Field Visit for collection of data by the students
2. Each student will prepare a term paper between 4000-5000 words (excluding charts, diagrams, tables etc.).
3. The selection of the topic will be from the subjects covered in the undergraduate economics honours syllabus.
4. The term paper will be submitted by the candidates to the department at least a fortnight before the viva-voce examination
5. The board of examiners will consist of one internal and one external examiner (from some other college or University on a one-on-one basis).
6. The marks division for the term paper will be as follows: 70 for the written report and 30 for viva voce.
7. The marks of the written paper will be the average given by the internal and external examiners.
However, the viva-voce will be conducted and the marks awarded by the external examiner only.

DISCIPLINE SPECIFIC ELECTIVE- III [DSE –III]

(For the students of 6th Semester)

Paper Code: EC_3_6_DSE_3 A/B Total Credit: 06 Full Marks: 100

The student needs to choose one Course from 3A or 3B

DSE 3A: Environmental Economics [EE]

Unit 1. Introduction **7 lecture hours**
1.1 What is environmental economics?
1.2 Review of microeconomics and welfare economics.
1.3 Interlinkages between the economy and environment
Reference for unit 1:
Hanley N, Shogren J.F. &White B. *Environmental Economics in Theory and Practice*, Macmillan

Unit 2. Efficiency and Market Failure **18 lecture hours**
2.1 Pareto optimality and market failure in the presence of externalities

2.2 Property rights and the Coase theorem
2.3 Public goods/ bads and market failure

Reference for unit 2:

Kolstad C, *Environmental Economics*, OUP

Unit 3. The Design and Implementation of Environmental Policy **20 lecture hours**

3.1 Pigouvian Fees – Single Polluter, Multiple Polluters, Fees vs Subsidies
3.2 Regulating Pollution : Command and Control, Economic Incentives
3.3 The Basic Theory of Tradeable Pollution Permits

Reference for unit 3:

Kolstad C, *Environmental Economics*, OUP
Hanley N, Shogren J.F. & White B. *Environmental Economics in Theory and Practice*, Macmillan

Unit 4. International Environmental Problems **13 lecture hours**

4.1 Transboundary Pollution – Transboundary Pollution as a problem of international externalities
4.2 International Trade and Environment – Pollution Havens
4.3 International Environmental Agreements – Basic idea about Montereal and Kyoto Protocol and Talks on Climate Change

Reference for unit 4:

Hanley N, Shogren J.F. &White B. *Environmental Economics in Theory and Practice*, Macmillan
Kolstad C, *Environmental Economics*, OUP
Internet on Recent Environmental Agreements

Unit 5. Measuring the values of Environmental Costs and Benefits **17 lecture hours**

5.1 Concepts of Willingness to pay (WTP) and Willingness to accept compensation (WTAC), Difference between the two concepts
5.2 Direct and Indirect Methods of Valuation – Contingent valuation, Travel Cost, hedonic Pricing – basic concepts only (no econometric techniques) – when they should be used, what are the advantages and disadvantages of these methods.

Reference for unit 5:

Hanley N, Shogren J.F. & White B. *Environmental Economics in Theory and Practice*, Macmillan

DSE 3B: Issues in Indian Economy

1. Growth and structural changes **4 lecture hours**

• Trends in national income and per capita income- Analysis with official statistics
• Structural Composition of national income and employment with NAS and NSSO data

2. Macroeconomic Policies and Their Impact **15 lecture hours**

• Fiscal Policy
• Trade and investment policy
• Financial and monetary policies
• Inflation and measures to control inflation
• Labour laws and regulation

3. Policies and Performance in Agriculture **15 lecture hours**

• Growth; productivity; agrarian structure and technology, capital formation
• Agricultural marketing
• Food security and food policy
• Pricing and procurement
• WTO and Indian agriculture

4. Policies and Performance in Industry **12 lecture hours**

• Output, employment and productivity growth
• Regional variation of industrial growth
• Small scale industries- problems and prospects
• Public sector; competition policy
• Foreign direct investment in industry
• Economic reforms and industry

5. Trends and Performance in Services **14 lecture hours**

• Formal and informal sectors
• Banking and insurance
• Trade in services

References

• Shankar Acharya, 2010, ―Macroeconomic Performance and Policies 2000-08, in Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performances and Challenges: Development and Participation, Oxford University Press.

• Rakesh Mohan, 2010, ―India's Financial Sector and Monetary Policy Reforms in Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performances and Challenges: Development and Participation, Oxford University Press.

• Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, ―Agricultural Growth in India Since 1991, RBI DEAP Study no. 27.

• B.N. Goldar and S.C. Aggarwal, 2005, ―Trade Liberalisation and Price-Cost Margin in Indian Industries, The Developing Economics, September.

• P. Goldberg, A. Khandelwal, N. Pavcnik and P. Topalova, 2009, ―Trade Liberalisation and New Imported Inputs, American Economic Review, Papers and Proceedings, May.

• Kunal Sen, 2010, ―Trade, Foreign Direct Investment and Industrial Transformation in India, ïn Premachandra Athukorala, editor, The Rise of Asia, Routledge.

• A. Ahsan, C. Pages and T. Roy, 2008, ―Legislation, Enforcement and Adjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and S. Sarkar, editors, Globalization, Labour Markets and Inequality in India, Routledge.

• Dipak Mazumdar and SandeepSarkar, 2009, ―The Employment Problem in India and the Phenomenon of the MissingMiddle‖, Indian Journal of Labour Economics.

• J. Dennis Rajakumar, 2011, ―Size and Growth of Private Corporate Sector in Indian Manufacturing, Economic and Political Weekly, April.

• Ramesh Chand, 2010,- ―Understanding the Nature and Causes of Food Inflation,‖ Economic and Political Weekly, February.

• Bishwanath Goldar, 2011, ―Organised Manufacturing Employment: Continuing the Debate‖, Economic and Political Weekly, April.

• Panchanan Das. (2007), Economic Reform, Output and Employment Growth in Registered Manufacturing Industries in India: Testing Kaldor's Hypotheses, Economic and Political Weekly, 42 (39), pp. 3978-3985.

• KaushikBasu and A. Maertens, eds, 2013, The New Oxford Companion to Economics in India, Oxford University Press.

• A. Raychaudhury and P De, International Trade in Services in India: Implications for Growth and Inequality in a Globalizing World, OUP, 2012.

• India Development Reports, IGIDR

DISCIPLINE SPECIFIC ELECTIVE- IV [DSE –IV]

(For the students of 6th Semester)

Paper Code: EC_3_6_DSE_4 A/B **Total Credit : 06** **Full Marks: 100**

The student needs to choose one Course from 4A or 4B

4A: Public Economics

Total Credit : 06(5 Theory+ 1Tutorial) **Total Lecture Hours: 75**

1. Government in a Market Economy **15 lecture hours**

• Market failure and externalities; public and merit goods;
• Government intervention;
• Public Expenditure for financing development

2. Choice and Public Economics **20 lecture hours**

• Characteristics of Pure Public Good; Distinction between Pure Public Good and Private Good;
• Market Failure in case of Pure Public Good Optimal provision of Public Goods - Private Provision and Public Provision of Public Goods,
• Lindahl Equilibrium,
• Voting Equilibrium.

3. The Revenue and Expenditure of the Government **20 lecture hours**

• Classification of Taxes; Canons of Taxation;
• Principles of Taxation - Benefit Principle, Equal Sacrifice Principle, Ability to Pay Principle;
• Incidence and Burden of Taxes;
• Effects of taxation on income distribution, work efforts, and on savings,
• The Laffer curve;
• Comparison between direct and indirect taxes – income and substitution effects;
• Optimal Taxation

4. Public Finance **20 lecture hours**

• Meaning and Classification of Public Expenditure - government budget and its types, government expenditure and tax multipliers, balanced budget multiplier;
• Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing; Effects of Public Debt.
• Indian Public Finance – Fiscal Federalism in India

References:

• J. F. Due and A. F. Friedlander. Government Finance-Economics of Public Sector, AITBS Publishers and Distributors, 1994
• J. Hindriks and G. D. Myles. Intermediate Public Economics, The MIT Press; Annotated Edition, 2006.
• R.A. Musgrave and P.B. Musgrave, Public Finance in Theory & Practice, McGraw Hill Publications, 5th edition, 1989.
• Amaresh Bagchi (ed), Readings in Public Finance, OUP
• 5. J. E. Stiglitz. Economics of Public Sector,W. W Norton and Company, 3rd Edition, 2000.
• A Ghosh and C. Ghosh, Economics of the Public Sector, Prentice Hall India Learning Private Limited; 2nd Revised edition (2014)

4B : Selected Features of West Bengal Economy

Total Credit : 06(5 Theory+ 1Tutorial) **Total Lecture Hours: 75**

1. Early Economic History of Bengal: **Lecture 8**
Economic history of the colonial period- -Entrepreneurship in Bengal in the 19th century- Deindustrialization and Drain of Resources- Economic consequences of partition- the case of Jute and Textile industry.

2. **Growth and Structural Transformation**- **Lecture 10**
Trends in the growth of State Domestic Product (SDP) - Trends in Sectoral contribution in SDP- Trends in per capita SDP- A comparison between Indian and West Bengal (All trends are from 1980's and mainly decadal trends using NSSO, SDP and Census Data).

3. **Employment Structure**- **Lecture 10**
Occupational Structure – trends in sectoral distribution of workforce- gender segregation of employment- A comparison with Indian and West Bengal- farm and non-farm employment- nature, extent and pattern of Rural Non-farm employment in West Bengal- marginalization and informalization of employment - Service sector expansion-causes and consequences(All trends are from 1980's and mainly decadal trends using Census and NSSO Data).

4. **Rural Livelihood** **Lecture 10**
Agricultural Growth and trends in decadal growth rates since 1980's –cropping pattern-crop diversification-agricultural- mechanization-problems- Problems and prospects of small-scale and cottage industries- fishery and diary development- - Micro-credit and Self-Help Group- Performance of MGNREGS in West Bengal.

5. **Social Sector and Human Development**- **Lecture 15**
Education-Elementary education in West Bengal-Enrollment and Drop-out- Infrastructure of primary education- Health- Health Status in West Bengal- child mortality and maternal mortality-A comparison with India, Kerala and Tamil Nadu- Human Development- concept, measurement and inter-district variation

6. **Infrastructure**: **Lecture 10**
Power generation and Rural Electrification-Growth of Banks in West Bengal- Bank Account and the extent of financial inclusion in West Bengal -Growth of Deposit, Credit-deposit ratio of commercial banks - Regional rural banks- Irrigation, Agro-marketing and Storage.

7. **Environment and Climate Change**: **Lecture 12**

Land Use Pattern- Forest and common property Resources -Joint Forest Management in West Bengal- Pollution and health risks- Climate Change- Environmental Education.

References:
1. State Development Report, 2010, West Bengal, Planning Commission, Government of India
2. West Bengal Human Development Report, 2004, Oxford University Press
3. Sumit Sarkar(1973): The Swedeshi Movement in Bengal, People's Publishing House, New Delhi
4. N.K. Sinha(1962): Economic History of Bengal from Plassey to the Permanent Settlement.

5. Ratan Khasnabis, 2008,"The Economy of West Bengal", Economic and Political Weekly (December 27)
6. A. Raychaudhuri & Tuhin Das (ed.).2005. West Bengal Economy: Some Contemporary issues, Allied Publishers
7. B Rogaly, B Barbara Hariss-White and S Bose(1999): Sonar Bangla? Agricultural Growth and Agrarian Change in West Bengal and Bangladesh. Sage Publications.
8. Suvobrata Sarkar(2013):, Bengali Entrepreneurs and Western Technology in the Nineteenth Century: A Social Perspectives', Indian Journal of History of Science, Vol. 48, No. 3, September , pp. 447-75.

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Generic Elective Courses in Economics

Semester-wise break-up of Generic Elective for students having Honours in subject other than Economics

Semester	Course
I	Generic Elective Course I (GE-I) : **Introductory Microeconomics**
II	Generic Elective Course II (GE-II): **Introductory Macroeconomics**
III	Generic Elective Course III (GE-III): **Development Economics and Public Finance**
IV	Generic Elective Course IV (GE-IV): **Indian Economics And Statistics**

Generic Elective in Economics I: Introductory Microeconomics

Course Code: EC_1_1_GE_01 Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100

Total Lecture Hours: 75

Course Outline

1. Exploring the subject matter of Economics 08 Lecture hours
Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs.

2. Demand and Supply: How Markets Work, Markets and Welfare 16 Lecture Hours
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.

3. The Households 15 Lecture Hours
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; labour supply and savings decision - choice between leisure and consumption.

4. The Firm and Perfect Market Structure 13 Lecture Hours
Behaviour of profit maximizing firms and the production process; short run costs and output decisions; costs and output in the long run.

5. Imperfect Market Structure 08 Lecture Hours
Monopoly and anti-trust policy; government policies towards competition; imperfect competition.

6. Input Markets **15 Lecture Hours**

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; and labour markets and public policy.

Reference Books

• Mankiw, N.G. : Economics: Principles and Applications, India edition by South Western, Cengage Learning India Private Limited, 4th edition, 2007.
• R.G. Lipsey. An Introduction to Positive Economics, ELBS (6th edition)
• Samuelson, P.A. and Nordhaus, W.D. : Economics, 19th edition, McGraw Hill
• Stonier, A.W. and Hague, D.C.: A Textbook of Economic Theory, Longman Group, London

Generic Elective in Economics II: Introductory Macroeconomics

Course Code: EC_1_2_GE_02 Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100

Total Lecture Hours: 75

Course Outline

1. Introduction to Macroeconomics and National Income Accounting 14 lecture hours

Basic issues of macroeconomics; measurement of gross domestic product; distinction of gross domestic product with gross national product; net domestic product and net national product; net domestic product at market price and at factor cost-the concept of national income. Measurement of national income-income method and the expenditure method- circular flow of income; the concept of value added and the value added method of measuring national income; real versus nominal GDP.

2. The Simple Keynesian Model in a Closed Economy 14 lecture hours

The Keynesian consumption function and the Keynesian saving function. The Simple Keynesian Model of Income determination- the concept of effective demand-the Simple Keynesian Multiplier-the role of the government in Simple Keynesian Model

3. The Classical System 11 lecture hours

Basic ideas of classical system-Say‘s Law and Quantity Theory of Money- classical theory of income and employment determination.

4. Money Supply and Money Demand 11 lecture hours

• Supply of money; measures of money supply; high powered money, credit creation by commercial banks, tools of monetary policy.
• Demand for money-demand for money in the classical system and in the Keynesian system-the liquidity preference schedule.

5. Inflation 13 lecture hours

Demand pull and cost push inflation; inflation and its social costs; hyperinflation; trade-off between inflation and unemployment –basic ideas of the Phillips Curve; anti-inflationary monetary and fiscal policies.

6. The External Sector 12 lecture hours

• Basis of trade: concepts of absolute advantage and comparative advantage; arguments for free trade; arguments for protection

• Balance of Payments-accounting and equilibrium; disequilibrium in balance of payments and devaluation-the role of the Marshall-Lerner condition

Text

•Sikdar Soumyen, Principles of Macroeconomics, Oxford University Press

Reference Books

•Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
• Stonier, A.W. and Hague, D.C. : A Textbook of Economic Theory, Longman Group, London
• Mankiw, N.G.: Elementary Macroeconomics, Worth Publishers, 7th edition, 2010.
• Errol D_Souza, Macroeconomics, Pearson Education, 2009.

Generic Elective in Economics III: Public Finance and Statistics

Course Code: EC_2_3_GE_03 Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100

Total Lecture Hours: 75

Course Outline

MODULE I: PUBLIC FINANCE

1. **Nature and Scope of Public Finance:** Definition, Scope, and Instruments – Distinguish between Private and Public Finance.
2. **The Theory of Public Goods:** Definition – Distinguish between Private and Public Goods.
3. **Principle of Taxation:** Benefit Theory, Ability to Pay Theory, the Principle of Maximum Social Advantage.
4. **Classification of Taxes:** Definition, Classification of Tax (Direct and Indirect Tax), their Merits and Demerits, Tax Burden, Impact and Incidence.
5. **Public Expenditure and Public Debt (Indian Public Finance):** Meaning, Classification, Principle, and Effects of Public Expenditure. Sources of Public Borrowing, Effects of Public Debts, Growth of India's Public Debt, The Public Budget, Classification.

References:

1. Musgrave, Richard A: The Theory of Public Finance, Mc Graw Hill, Kogakhusha Ltd., Tokyo.
2. Due, John F. and Ann F. Friedlaender: Govern Finance – Economics of Public Sector, AITBS Publishers and Distributors, Delhi.
3. Datt & Sundaram: ***Indian Economy (latest edition),*** S. Chand & Co., New Delhi.
4. Misra, S.K. and V.K. Puri: ***Indian Economy (latest edition),*** Himalayan Publishing Co., Mumbai.

MODULE II: STATISTICS

Meaning of Statistics: Variable and Attribute, Primary and Secondary Data, Population and Sample**,** Complete Enumeration (or Census) and Sample Survey, Classification, Tabulation.

Charts and Diagrams: Objectives of Diagrammatic Representation – Types of Charts and Diagrams, Line Diagram, Bar Diagram, Pie Diagram, and Pictogram.

Frequency Distribution: Observation and Frequency – Ungrouped Frequency Distribution – Construction of Frequency Distribution – Cumulative Frequency Distributions – Diagrammatic Representation of Frequency Distribution, Histogram, Frequency Polygon and Ogive.

Measures of Central Tendency: Arithmetic Mean (AM), Geometric Mean (GM), Harmonic Mean (HM), Median, and Mode with examples.

Measures of Dispersion: Meaning and Necessity, Range, Quartile Deviation, Mean Deviation (MD) and Standard Deviation (SD) with examples.

Correlation and Regression: Concepts of correlation and regression; Bivariate data, Bivariate frequency distribution; Scatter Diagram; Covariance; Correlation coefficient (r), Properties of Correlation coefficient (r), Calculation, Interpretation and uses of Correlation coefficient (r); Variance of sum of two series; Rank correlation; Regression; Properties of linear regression; Explained variation and Unexplained variation; Regression curve in bivariate frequency distribution.

Index Numbers: Meaning of 'Index Number'; Problems in construction of index numbers; Method of construction of index numbers; Quantity of index number; Tests of index numbers; Cost of living index numbers (CLI); Laspeyres and Paasche's formulae for CLI; Errors in index numbers.

Vital Statistics: Introduction; Crude Death Rate (CDR); Specific Death Rate (SDR); Standardised Death Rate; Life Table; Crude Birth Rate (CBR); General Fertility Rate (GFR); Age-specific Fertility Rate(ASFR); Total Fertility Rate (TFR); Vital Index; Gross Reproduction Rate (GRR); Net Reproduction Rate.

Analysis of Time Series: Meaning and necessity of Time Series analysis; Component of Time Series; Adjustments to time series data; Secular trend, Measurement of trend; Seasonal Variation, Cyclical Fluctuation; Business forecasting; Exponential smoothing.

References:

1. Goon, A.M., M.K. Gupta and B. Dasgupta: Basic Statistics - The World Press Pvt. Ltd Kolkata.
2. Gupta, S.P.: Statistical Methods, Sultan Chand & Sons, New Delhi.
3. Das, N.G.: Statistical Methods, Vol.I&II, M. Das & Co.
4. Nagar, A.L. and Das, R.K.: Basic Statistics, Oxford Publication, New Delhi.

Generic Elective in Economics IV: Development Economics and Issues of Indian Economy

Course Code: EC_2_4_GE_04 Total Credit: 6 (5 Theory + 1 Tutorial) Full Marks: 100

Total Lecture Hours: 75

Course Outline

MODULE I: DEVELOPMENT ECONOMICS

1. **Introduction:** Meaning of Development: Meaning of Economic Development, Broad Indicators of Economic Development, Distinction between Growth and Development, Economics as a Part of Social Development.
2. **Growth or Development Indicators:** Net National Income and Per Capita Income as Growth Indicators – Concepts of HDI, GDI, GEM and HPI as Development Indicators.
3. **Capital Formation:** Role of Capital Formation in LCDs and its problems.
4. **Population and Economic development**: Population and Economic Development: The Two Way Relation.
5. **Balanced and Unbalanced Growth**: Balanced Versus Unbalanced Growth with their Merits and Demerits.
6. **IMF and World Bank:** Role of IMF and World Bank in Economic Development of the LCDs.

References:

1. Todaro, M.P. and Stephen C. Smith: ***Economic Development***, Pearson Education (Singapore) Pvt. Ltd. Indian Branch, Delhi
2. Salvatore, D. and F. Dowling: ***Development Economics***, *Schaum's Outline Series in Economics,* McGraw Hill, New York.
3. Thirwall, A.P.: Economics of Development, Palgrave Macmillan, New Delhi.

MODULE II: ISSUES OF INDIAN ECONOMICS

1. **Meaning of Underdeveloped Economy and Characteristics of Indian Economy: Meaning of Underdeveloped Economy, Characteristics of Indian Economy** as an Underdeveloped Economy, Causes of Underdevelopment in India, and Major Issues of Development.
2. **National Income of India:** Trend, Estimation and Distribution.

3. **Population:** Trend of Population Growth – Recent Population Policy of the Government.
4. **Agriculture:** Causes of Low Productivity – Land Reforms: Meanings, Importance, Progress and Prospects – New Technology and Green Revolution and its Effects – Agricultural Finance and Marketing.
5. **Industry:** Role of Cottage and Small-Scale Industries in Indian Economic Development – Problems and Solutions, Industrial Labour, Industrial Disputes and Social Securities in India.

References:

1. Jalan, B.: India's Economic Policy, Viking, New Delhi.
2. Datt, R. and Sundaram, K.P.M.: Indian Economy (Latest Edition), S. Chand and Co. Ltd., New Delhi.
3. Agarwal, A.N.: Indian Economy (Latest Edition), Vikas Publishing Co. Delhi.
4. Misra, S.K. and V.K. Puri: Indian Economy *(latest edition)*, Himalayan Publishing Co., Mumbai.
5. Roy, Tirthankar: The Economic History of India, Oxford Publishing, New Delhi.

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