Outlines of Syllabi and Course Structure for various Courses

in the Department of Economics 2016-17

Course Structure for B.A. (Hons.) Economics

Semester-I	Semester-II
Economics Core Course 1 : Introductory Microeconomics	Economics Core Course 3 : Introductory Macroeconomics
Economics Core Course 2 : Mathematical Methods for Economics-I	Economics Core Course 4 : Mathematical Methods for Economics-II
Ability Enhancement Compulsory Course (AECC)-I	Ability Enhancement Compulsory Course (AECC)-II
Generic Elective (GE) Course-I	Generic Elective (GE) Course-III
Generic Elective (GE) Course-II	Generic Elective (GE) Course-IV

Semester-III	Semester-IV
Economics Core Course 5 : Intermediate Microeconomics-I	Economics Core Course 8 : Intermediate Microeconomics-II
Economics Core Course 6 : Intermediate Macroeconomics-I	Economics Core Course 9 : Intermediate Macroeconomics-II
Economics Core Course 7 : Statistical Methods for Economics	Economics Core Course 10 : Introductory Econometrics
Skill Enhancement Course (SEC)-I	Skill Enhancement Course (SEC)-II
Generic Elective (GE) Course-V	Generic Elective (GE) Course-VI

Semester-V	Semester-VI
Economics Core Course 11 : Indian Economy-I	Economics Core Course 13 : Indian Economy-II
Economics Core Course 12 : Development Economics-I	Economics Core Course 14 : Development Economics-II
Discipline Specific Elective (DSE) Course-I (From List of Group-I)	Discipline Specific Elective (DSE) Course-III (From List of Group-II)
Discipline Specific Elective (DSE) Course-II (From List of Group-I)	Discipline Specific Elective (DSE) Course-IV (From List of Group-II)
Group-I (Discipline Specific Elective (DSE) Courses)*	Group-II (Discipline Specific Elective (DSE) Courses)*
(i) Economics of Health and Education	(ix) Political Economy-II
(ii) Applied Econometrics	(x) Comparative Economic Development (1850-1950)
(iii) Economic History of India (1857-1947)	(xi) Financial Economics
(iv) Topics in Microeconomics-I	(xii) Topics in Microeconomics-II
(v) Political Economy-I	(xiii) Environmental Economics
(vi) Money and Financial Markets	(xiv) International Economics
(vii) Public Economics	(xv) Economics of Industry
(viii) Economics of Agriculture	(xvi) Economics of Human Resource Development
	(xvii) Dissertation/Project

* The Discipline Specific elective subjects offered by the department will depend upon the availability of the experts and its subsequent approval by the department.

Syllabi for B.A. (Hons.) Economics Sem I and Sem II (CBCS), 2016-17

B.A. (Hons.) Semester I (under CBCS)	
ECO-C1	Economics Core Course 1: Introductory Microeconomics
ECO-C2	Economics Core Course 2: Mathematical Methods for Economics-I
ECO-AECC1	(AECC) -I(English communication)
GE1*	
GE2*	
B.A. (Hons.) Semester II (under CBCS)	
ECO-C3	Economics Core Course 3: Introductory Macroeconomics
ECO-C4	Economics Core Course 4: Mathematical Methods for Economics-II
ECO-AECC2	Ability Enhancement Compulsory Course (AECC) -II(Environment Studies)
GE3*	
GE4*	

C: Core courses; GE: Generic Elective; AECC: Ability Enhancement Compulsory Courses

*GE subjects are to be selected by the students from the pool of GE subjects offered by the various Departments of the University

Generic Elective Subjects (Offered by Economics Department)

Given the fact that as per UGC template there is no difference in the syllabi of Core 1and GE2 ;Core3 and GE3 for Economics, therefore the department would not be running any separate classes for generic elective subjects in economics. The Core 1 and Core 3 should be treated as GE1 and GE2

1.ECO-GE2: Introductory Microeconomics

2.ECO-GE3: Introductory Macroeconomics

NOTE: The Department is also generic electives in Sociology only for the students of the Economics as it may not be feasible for all the students of Economics Honors to study Sciences and no other department in humanities is offering any generic elective courses. So following Generic electives subjects in Sociology are also being offered:

1.SOC-GE2:Indian Society: Images and Realities

2.SOC-GE4: Rethinking Development

B.A. (Hons.) Semester I (under CBCS)

ECO-C1: Introductory Microeconomics

Max. Marks: 80 **Time: 3 Hrs.**

Course Description **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

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.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Course Outline

UNIT I

Exploring the subject matter of Economics 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. The basic competitive model. 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.

UNIT II

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; labour supply and savings decision - choice between leisure and consumption.

UNIT III

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. Controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets. Imperfect Market Structure Monopoly and anti-trust policy; government policies towards competition; imperfect competition.

UNIT IV

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; and labour markets and public policy.

Readings:

1. Karl, E. Case., and Ray C. Fair, (2007). *Principles of Economics(*8th Ed.).Pearson Education Inc.
2. N. Gregory Mankiw.(2007) *Economics: Principles and Applications*.(4th edition) India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited.
3. Joseph E. Stiglitz, and Carl E. Walsh, , (2007) . *Economics* (4th Edition), W.W. Norton & Company, Inc., New York, International Student Edition

ECO-C2: Mathematical Methods in Economics–I

Max. Marks: 80 **Time: 3 Hrs.**

Course Description **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

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.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

  The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

  Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Course Outline

Unit I

Preliminaries and Functions of one real variable: Logic and proof techniques; sets and set operations; relations; functions and their properties; number systems. 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;

Unit II

Differentiable Functions and Single-variable optimization: Differentiable functions: characterizations, properties with respect to various operations and applications; second and higher order derivatives: properties and applications. Geometric properties of functions: convex

functions, their characterizations and applications; local and global optima: geometric characterizations, characterizations using calculus and applications.

Unit III

Integration of functions: Methods of Substitution and partial fractions and simple economic applications

Unit IV

Difference equations: Introduction, solution of difference equations upto 2^{nd} order, simple economic applications

Readings:

K. Sydsaeter and P. Hammond, (2002).*Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi.

Generic Elective for Economics Honours Students only

1. **GENERAL ELECTIVE (GE) COURSE-I (SOCIOLOGY)**

SOC-GE02: Indian Society: Images and Realities

Max. Marks: 80 **Time: 3 Hrs.**

Course Objective: **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

This course seeks to provide an interdisciplinary introduction to Indian society.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

  The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

  The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

  Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Outline:
1. **Ideas of India: Civilization, Colony, Nation and Society**
2. Institutions and Processes
2.1 Village, Town and Region
2.2 Caste, Religion and Ethnicity
2.3 Family and Gender
2.4 Political Economy
3. Critiques

COURSE CONTENTS AND ITINERARY

Unit I

1. **Ideas of India: Civilization, Colony, Nation and Society**

1.1 Embree, Ainslie Thomas, *Imagining India*. Delhi: Oxford University Press 1989. Chapter 1- Brahmanical Ideology and Regional Identities. Pp. 9 – 27

1.2 Cohn, Bernard. *India: Social Anthropology of a Civilization*, Delhi: OUP. Chapters 1, 3, 5 & 8 (1-7, 24-31, 51-59, 79-97)

2. Institutions and Processes

2.1 Village, Town and Region

2.1.1 Breman, Jan. 'The Village in Focus' from the Village Asia Revisited, Delhi: OUP 1997. Pp. 15-64

2.1.2 Cohn, Bernard, *An Anthropologist Among Historians and Other Essays*, Delhi: OUP, 1987, Chapters. 4 and 6. Pp.78-85 & 100 – 135

Unit II

2.2 Caste, Religion and Ethnicity

2.2.1 Mines, Diane P. *Caste in India*. Ann Arbor, Mich.: Association for Asian Studies, 2009. Pp. 1-35

2.2.2 Fuller, C. J. *The Camphor Flame: Popular Hinduism and Society in India*.Delhi: Viking, 1992. Chapter 1. Pp. 3 – 28.

2.2.3 Ahmad, Imtiaz et.al (eds). *Pluralism and Equality: Values in Indian Society and Politics*, Sage : New Delhi, 2000. Chapter: 'Basic Conflict of 'we'and 'they'' Between religious traditions, between Hindus, Muslims and Christians'.

Unit III

2.3 Family and Gender

2.3.1 Dube, Leela. 'On the Construction of Gender: Hindu Girls in Patrilineal India', *Economic and Political Weekly*, Vol. 23, No. 18 (Apr. 30, 1988), pp.WS11-WS19

2.3.2 Gray, John N. & David J. Mearns. *Society from the Inside Out: Anthropological Perspectives on the South Asian Household.* New Delhi: Sage, 1989. Chapter 3. (Sylvia Vatuk) Household Form and Formation: Variability and Social Change among South Indian Muslims. Pp. 107-137

Unit IV

2.4 Political Economy

2.4.1 Chatterjee, Partha. *State and Politics in India*. Delhi: Oxford University Press, 1997. Introduction: A Political History of Independent India. Pp. 1-39

3. Critiques

3.1 Omvedt, Gail. *Understanding Caste*. New Delhi: Orient Black Swan, 2011 Chapters. 5, 9, 11 and Conclusion. Pp. 30-38, 67 – 73, 83 – 90, 97 – 10

3.2 Sangari, Kumkum and Sudesh Vaid. *Recasting Women: Essays in Indian Colonial History.* New Brunswick: Rutgers University Press. Introduction, Pp.1 – 25

2. Generic Elective :

STAT GEI: STATISTICAL TECHNIQUES

(6 Credits)

Theory: Final Examination : 80 Marks; Internal Assessment : 20 Marks
Practical Final Examination : 30 Marks; Internal Assessment : 10 Marks ; VIVA-VOCE: 10 Marks

Note :- The theory question paper will consist of 9 questions, two from each of four units and one compulsory question. A candidate will be required to attempt five questions selecting one from each section and the first compulsory question in three hours' duration. The compulsory question shall contain short answer type questions covering the whole syllabus.

Note for Practical:- The practical question paper will consist of 5 questions. The students will be required to attempt three questions.

Unit I

Statistical Population and its parameters, sample, data on study variable from sample.

Compilation, classification, tabulation and diagrammatic representation of Statistical data, frequency distribution of discrete and continuous data, histogram, frequency polygon, frequency curve, ogives, stem and leaf plot.

Unit II

Measures of location and dispersion (including box and whisker plot), Sample moments, Measures of skewness and kurtosis.

Attribute, dichotomous and manifold classification, independence of two attributes, Measures of association of attributes (2 x 2 and p x q contingency tables).

Bivariate Data, Association of Variables, Scatter Plot, **Correlation Coefficient**-Karl Pearson and Spearman, Simple Regression.

Unit III

Sample space, events, types of events, independent, dependent, mutually exclusive events, various approaches to probability, Conditional Probability, Partition of Sample space, Total Probability Theorem, Bayes' Theorem (Statement and Applications)

Unit IV

Random variables (discrete and continuous), cumulative distribution function, probability mass/density functions, mathematical expectation and variance, Binomial, Poisson and Normal distributions, Real life problems associated with these distributions

REFERENCES:

1. Meyer, P.L. (1990).*Introductory Probability and Statistical Applications*,Oxford & IBH Pub.
2. Rohatgi, V. K.,A.K.Md(2010). *An Introduction to Probability Theory and Mathematical Ehsanes&Saleh Statistics*,Wiley Eastern.
3. Goon, A.M., Gupta, M.K. &Dasgupta, B (2005): *Fundamentals of Statistics*, Vol. I , World Press, Calcutta.

Supplementary Reading:

1. Irwin Miller and Marylees Miller, John E. Freund (2006) *Mathematical Statistics with Applications*(7th Ed), Pearson Education, Asia.
2. Sheldon Ross(2007*Introduction to Probability Models*(9th Ed.), Academic Press, Indian Reprint,

Generic Elective for Non-Economics Honours Students

ECO-GE2: Introductory Microeconomics

Max. Marks: 80 **Time: 3 Hrs.**

Course Description **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

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.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Course Outline

UNIT I

Exploring the subject matter of Economics 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. The basic competitive model. 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.

UNIT II

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; labour supply and savings decision - choice between leisure and consumption.

UNIT III

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. Controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets. Imperfect Market Structure Monopoly and anti-trust policy; government policies towards competition; imperfect competition.

UNIT IV

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; and labour markets and public policy.

Readings:

1. Karl, E. Case and Ray C. Fair. (2007). *Principles of Economics* (8th Edition) Pearson Education Inc.
2. Mankiw.N.Gregory.(2007) *Economics: Principles and Applications* (4th edition) India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited.
3. 3. Joseph E. Stiglitz and Carl E. Walsh. (2007) *Economics* (4th Edition) International Student Edition, W.W. Norton & Company, Inc., New York.

Syllabi of B.A. (Hons.) Semester II (under CBCS)

ECO-C3: Introductory Macroeconomics

Max. Marks: 80 **Time: 3 Hrs.**

Course Description **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

This course aims to introduce the 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 savings, investment, GDP, money, inflation, and the balance of payments.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

  The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

  Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Course Outline

Unit- I

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

Unit- II

The Closed Economy in the Short Run

Classical and Keynesian systems: Assumptions and Key Features of classical economics; Simple Keynesian model of income and employment determination; IS-LM model; 2 sector Framework: Derivations and Properties; Fiscal and Monetary Multipliers

Unit- III

Money

Functions of money; quantity theory of money: Fisher and Cambridge Approaches Determination of money supply and demand; credit creation; tools of monetary policy.

Unit- IV

Inflaon

Inflation: Definition, Types, cause and its social costs: Balance of payments: current and capital accounts: Meaning, Types and Causes of disequilibrium of Balance of Payments.

Readings:

1. Dornbusch, Fischer and Startz. (2010) *Macroeconomics*, (11th ed.) McGraw Hill .
2. N. Gregory Mankiw. (2010)*Macroeconomics, (*7th edition) Worth Publishers.
3. Olivier. Blanchard.(2009) *Macroeconomics (* 5th ed.) Pearson Education, Inc.,
4. Richard T. Froyen.(2005) *Macroeconomics* (2nd ed.) Pearson Education Asia.
5. Andrew B. Abel. and Ben S. Bernanke. (2011) *Macroeconomics* (7th ed.) Pearson Education, Inc.
6. Errol D'Souza. (2009) *Macroeconomics*, Pearson Education.
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz. (2012) *International Economics* (9th ed.)Pearson Education Asia.

ECO- C4: MATHEMATICAL METHODS IN ECONOMICS -II

Max. Marks: 80 **Time: 3 Hrs.**

Course Description **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

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.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

  The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

  The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

  Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Course Outline

Unit I

Differential Equation*:* Introduction; Solution: Variable Separable Case, Homogeneous Case, Standard Linear Differential Equation, Bernoulli's form, Exact Equation; Solution of Linear differential Equation with Constant Coefficients; Simple Application Questions.

Unit II

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 economic applications.

Unit III

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 economic applications.

Unit IV

Multi-variable optimization: Convex sets; geometric properties of functions: convex functions, their characterizations, properties and applications; further geometric properties of functions: quasi convex 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 economic applications.

Readings:

K. Sydsaeter and P. Hammond (2002). *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi.

Generic Elective for Non-Economics Honours Students

Generic Elective (GE) Course II (Sociology)

SOC-GE4: Rethinking Development

Max. Marks: 80 **Time: 3 Hrs.**

Credits: 6

(4 Class Room Teaching + 2 Tutorial)

Objective: This paper examines the ideas of development from a sociological perspective. It introduces students to different approaches to understanding development and traces the trajectory of Indian experience with development from an interdisciplinary perspective.

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Outline:
1. Unpacking Development
2. Theorizing Development
3. Developmental Regimes in India
4. Issues in Developmental Praxis

Course Contents and Itinerary

Unit I

1. Unpacking Development

1.1 Bernstein, Henry. *Underdevelopment and Development*. Harmondsworth: Penguin, 1973. Introduction: Development and the Social Sciences. pp. 13 – 28.

1.2 Wolfgang, Sachs (ed.) The Development Dictionary: A Guide to Knowledge and Power. London: Zed Books. 1992. pp. 1-21.

1.3 Rist, Gilbert. *The History of Development*. London: Zed, 2008. Pp. 8 – 46

1.4 Ferguson, J. 2005. 'Anthropology and its Evil Twin; 'Development' in the Constitution of a Discipline', in M. Edelman and A. Haugerud (eds.) *The Anthropology of Development and Globalization*. Blackwell Publishing. pp140-151.

Unit II

2. Theorizing Development

2.1 Harrison, David. *The Sociology Of Modernization And Development*. London: Routledge, 1991. Chapters 1 &2. Pp. 1 – 54

2.2 Frank, Andre Gunder. 1966. 'The Development of Underdevelopment', *Monthly Review*. 18 (4) September 17-31

2.3 Redclift, Michael. 1984. *Development and the Environmental Crisis. Red or Green alternatives?* New York: Methuen & Co. Chapter 1 and 7, pp 5-19, 122-130

2.4 Visvanathan, Nalini, Lynn Duggan, Laura Nisonoff & Nan Wiegersma (eds). 1997. The Women, Gender and Development Reader. Delhi: Zubaan, pp33-54

2.5 Sanyal. Kalyan. 2007. *Rethinking Capitalist Development: Primitive Accumulation, Governmentality and Post-Colonial Capitalism*. New Delhi: Routledge, pp 168-189

2.6 Sen, A. 1999. *Development as Freedom.* New Delhi : Oxford University Press, pp. 3-11

Unit III

3. Developmental Regimes in India

3.1 Bardhan, Pranab. *The Political Economy of Development In India*. Delhi: Oxford, 1992. Pp. 1-60

3.2 Chatterjee, Partha. Democracy and Economic Transformation in India, *Economic and Political Weekly*, Vol. 43, No. 16 (Apr. 19 - 25, 2008), pp. 53-62

Unit IV

4. Issues in Developmental Praxis

4.1 Scudder. T. 1996. 'Induced Impoverishment, Resistance and River Basin Development' in Christopher McDowell (ed.) *Understanding Impoverishment:The Consequences of Development Induced Displacement*. Oxford: Berghahn books. Pp. 49-78

4.2 Sharma, Aradhana. *Logics of Empowerment: Development, Gender and Governance in Neoliberal India*. Minneapolis: University of Minnesota Press, 2008. Chapters. Introduction, Chapter 4 and Conclusion

STAT GEII: BIOSTATISTICS

(6 Credits)

Theory: Final Examination : 80 Marks; Internal Assessment : 20 Marks
Practical Final Examination : 30 Marks; Internal Assessment : 10 Marks ; VIVA-VOCE: 10 Marks

Note for Theory :- The theory question paper will consist of 9 questions, two from each of four units and one compulsory question. A candidate will be required to attempt five questions selecting one from each section and the first compulsory question in three hours' duration. The compulsory question shall contain short answer type questions covering the whole syllabus.

Note for Practical:- The practical question paper will consist of 5 questions. The students will berequired to attempt three questions.

Unit I

Statistical Population and its parameters, sample, data on study variable from sample. Compilation, tabulation & graphical representation of data, stem-and-leaf plot. Populations and samples.Measures of location, variability, skewness and kurtosis, box and whisker plot based on sample data.

Unit II

Intuitive concept of probability, some elementary combinatorial problems, conditional probability, Bayes' theorem and its applications. Sensitivity, specificity, predictive value positive and negative, ROC curve.

Random variables, probability mass function and probability density function. Expectation and variance of a random variable, Binomial, Poisson and Normal distributions, Real life problems associated with these distributions.

Unit III

Principles of test of significance: Null and alternative hypotheses (simple and composite), Type-I and Type-II errors, critical region, level of significance, idea of p-value, size and power. Tests of hypotheses for the parameters of a normal distribution (two sample problems also). Tests of proportions, association, goodness-of-fit using Chi-square test, Yates' correction.

Unit IV

Design of Experiment and its Principles, Plot, Treatment, Block, Completely Randomized Design (CRD) , Randomized Block Design (RBD) and their analysis using one and two-way Analysis of variance (ANOVA).

REFERENCES:

1.Daniel, Wayne W. (2005) : *Bio-statistics: A Foundation for Analysis in the Health Sciences*,John Wiley

2. Goon, A.M., Gupta (2002) .*Fundamentals of statistics, Vol. I & II*, World Press, Calcutta

M.K. & Das Gupta, B.
SUPPLEMENTARY READINGS:
1. Dunn, O.J. and Clark V.A.(2009) : *Basic Statistics: A primer for the Biomedical Sciences, Fourth Edition*, Wiley
2. Bancroft, H., Ipsen J.and Feigl P.(1970).*Introduction to BioStatistics*, Harper and Row
3. Bailey, N.T.J. (1995). *Statistical Methods in Biology*, Cambridge University Press

Generic Elective for Non-Economics Honours Students

ECO-GE3: Introductory Macroeconomics

Max. Marks: 80 **Time: 3 Hrs.**

Course Description **Credits: 6**

(4 Class Room Teaching + 2 Tutorial)

This course aims to introduce the 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 savings, investment, GDP, money, inflation, and the balance of payments.

Course Outline

Instructions for Paper-setter and candidates:

- The maximum marks for the paper will be 100. The question paper will be of 80 marks and continuous evaluation 20 marks. Time allowed will be 3 hours.

  The paper-setter must put a note in the question paper in this regard.

- There shall be **9** questions in all.

  The first question **compulsory** comprising 15 short answer type questions spread over the whole syllabus. The candidates are required to attempt 10 questions. Each question shall be of **two** marks (10 x 2= 20).

  Rest of the paper shall contain four units. Two questions shall be asked from each unit and the candidates shall be given internal choice. The candidates shall attempt one question from each unit. Each question will carry 15 marks (15x4=60).

Unit- I

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

Unit- II

The Closed Economy in the Short Run

Classical and Keynesian systems: Assumptions and Key Features of classical economics; Simple Keynesian model of income and employment determination; IS-LM model; 2 sector Framework: Derivations and Properties; Fiscal and Monetary Multipliers

Unit- III

Money

Functions of money; quantity theory of money: Fisher and Cambridge Approaches Determination of money supply and demand; credit creation; tools of monetary policy.

Unit- IV

Inflation

Inflation: Definition, Types, cause and its social costs: Balance of payments: current and capital accounts: Meaning, Types and Causes of disequilibrium of Balance of Payments.

Readings:

1. Dornbusch, Fischer and Startz. (2010) *Macroeconomics*, (11th ed.) McGraw Hill .
2. N. Gregory Mankiw. (2010)*Macroeconomics, (*7th edition) Worth Publishers.
3. Olivier. Blanchard.(2009) *Macroeconomics (* 5th ed.) Pearson Education, Inc.,
4. Richard T. Froyen.(2005) *Macroeconomics* (2nd ed.) Pearson Education Asia.
5. Andrew B. Abel. and Ben S. Bernanke. (2011) *Macroeconomics* (7th ed.) Pearson Education, Inc.
6. Errol D'Souza. (2009) *Macroeconomics*, Pearson Education.
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz. (2012) *International Economics* (9th ed.)Pearson Education Asia.

.....