

Department of Economics



UNIVERSITY OF NORTH BENGAL

Syllabus for Master of Arts in Economics

with effect from the Academic Session 2022-2024

(CBCS based)



DEPARTMENT OF ECONOMICS
UNIVERSITY OF NORTH BENGAL
RAJARAMMOHUNPUR, DARJEELING
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<https://www.nbu.ac.in/dept/economics.aspx>

Department of Economics

REVISED CBCS CREDIT STRUCTURE

Course Type	Semester I			Semester II			Semester III			Semester IV			Total
	Number of Course	Credit / course	Total Credit	Number of Course	Credit / course	Total Credit	Number of Course	Credit / course	Total Credit	Number of Course	Credit / course	Total Credit	
CORE	3	4	12	3	4	12	1	4	4	2	4	8	36
DSE	1*	2	2	1*	2	2	3 [#]	2	6	1*	2	2	12
AEC	1	2	2				1	2	2				4
SEC				1	2	2				1	2	2	4
GE							1 ^{\$}	4	4	1 ^{\$}	4	4	8
	16			16			16			16			64

* At least two (2) courses is to be offered by the department (One to be chosen by student). In the second (2) semester such courses will be activity based. Students will also have the option for substituting by NSS/NCC/designated MOOCS to complete the credit requirement in the second semester.

At least six (6) courses are to be offered by the department (Three to be chosen by student).

\$ At least two (2) courses, Maximum four (4) each in third (3) and fourth (4) semester to be offered by the department.

N.B.

1. Department is to formulate at least 2 Generic Elective/Open Elective Course (4 Credit Each) for the 3rd Semester and 4th Semester where its own students as well as the students selected from other departments will be allowed. Such courses shall be put under a faculty wise basket from which students after 2nd Semester/ 3rd Semester respectively will opt with five (5) preferences. Each Department needs to earmark additional seats for each course to accommodate students from other Departments prior to exercise of option. To ensure fairness such allotment will be made by AI.

2. For the above matrix marks allotted shall be: 4 credits – 75 (ESE) + 25 (CE) 2 Credits – 42 (ESE) + 8(CE)

3. Department may decide to mark some Core Courses as Soft Core with choices 1:2 to provide exposure to foundational and related areas to the discipline.

4. AEC and SEC courses to be formulated by respective constituted committees.

5. Department may decide to offer its program with credit up to say 100 by including more Core/Soft Core/ Elective Courses, provided the distribution is equal for each semester and the provided matrix is kept uniform for the University.

SEMESTER- I
CBCS Course Structure

Course Type	Semester	Old Codes	End Semester Exam	Continuing Evaluation	CREDIT
Semester I					
CORE (3)					
Core 1	Economic Theory I	101 & 102	75	25	4
Core 2	Quantitative Economics I	103 & 104	75	25	4
Core 3	History of Economic Ideas	105 & 205	75	25	4
DSE (1)					
DSE 1 (Select any one from two courses)	Survey Methods and Application	107	42	8	2
	Data Analysis and Application I	New	42	8	2
AEC (1)					
	AEC and SEC courses to be formulated by respective constituted committees	-	50		2
Semester II					
CORE (3)					
Core 4	Economic Theory II	201 & 202	75	25	4
Core 5	Quantitative Economics II	203 & 204	75	25	4
Core 6	Public Economics	106 & 206	75	25	4
DSE (1)					
DSE 2 (Select any one from two courses)	Term Paper	408	42	8	2
	Data Analysis and Application II	New	42	8	2
SEC (1)					
	AEC and SEC courses to be formulated by respective constituted committees	-	50	-	2
Semester III					
CORE (1)					
Core 7	Field Survey and Group Discussion	308	75	25	4
DSE (3)					
DSE 3-5 (Select any three)	Agricultural Economics	303A, 303B & 403A, 403B	42	8	2

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from six courses)	Growth Economics	301 & 401	42	8	2
	International Economics	304A, 304B & 404A, 404B	42	8	2
	Environmental Economics	305B & 405B	42	8	2
	Econometrics I	306A & 406A	42	8	2
	Econometrics II	306B & 406B	42	8	2
	GE (1)				
GE 1 (Select any one from two courses)	Demography	307A, 307B & 407A, 407B	100	25	4
	Social Research Methods	New	100	25	4
	AEC (1)				
	AEC and SEC courses to be formulated by respective constituted committees	-	50		2
Semester IV					
	CORE (2)				
Core 8	Development Economics	302 & 402	75	25	4
Core 9	Dissertation	New	75	25	4
	DSE (1)				
DSE 6 (Select any one from two courses)	Resource Economics	305A & 405A	42	8	2
	Tea Economics	New	42	8	2
	GE (1)				
GE 2 (Select any one from two courses)	Contemporary Issues in Indian Economy	New	100	25	4
	Development Policy Analysis	New	100	25	4
	SEC (1)		50		2
	AEC and SEC courses to be formulated by respective constituted committees	-	50		2

TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical:

Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Course 101 (2 credit) and 102 (2 credit) has been merged and modified to develop this course on Economic Theory I.

PG BOS Meeting Reference Number:

Course Code: ECONCCT0101N

Course Name: ECONOMIC THEORY I

Brief Course Description:

The course has two broad groups, which include microeconomic and macroeconomic theory. In this course the microeconomic theory is focused on individual decision making and strategic decision making. The Keynesian and monetarist approach is applied to develop an understanding of macroeconomic issues related to income, employment and rate of interest.

Prior knowledge of under-graduate level economic theory along with high school mathematics is required for this course.

Revision of syllabus may take place before the beginning of semester and also modification may take place during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objective: To develop an advanced theoretical understanding of consumer behaviour and decision-making under certainty. A theoretical understanding of strategic behaviour of economic agents will be developed in this course. This theoretical course will also help to learn the analytical approach of Keynesian and monetarist school for macroeconomic problems.

Course Learning Outcomes: On successful completion of the course, a student will be able to develop a sound understanding of the core microeconomic concepts that economists use to understand the process of decision-making by an economic agent(s). The student should be able to apply mathematical tools and techniques to study behaviour of economic agents. Besides students will be able to identify strategic behaviour of economic agents and formulate them in a game theoretic framework. They will be able to identify and analyse strategic interactions and explain negotiation and exchange between economic agents in game theory models. The students will be able to compute the outcome of normal form games, mixed strategy and sequential games. This course will also help to develop an understanding of the major macroeconomic issues, as well as the interrelationships among the various macroeconomic variables and the way they impact upon the working of the economy as a whole, thereby determining the course of the economy. The course will help to gain an in-depth idea about the Keynesian macroeconomic framework, both in the closed and open economy contexts, and the Keynesian policy prescriptions. In addition, students will gain knowledge about monetarist policy formulations as well as the theoretical justifications of such policies. The course will also help the students to get acquainted with

disequilibrium transactions and quasi equilibrium situations in general disequilibrium macro-models.

Course Syllabus: (Group A)

Module 1: Consumer choice and utility theory

Preference & Choice: Preference Relations and Utility, Choice Rule and Optimal Choice, Demand Functions and Comparative Statics, Demand, Indirect Utility, and Expenditure Function, Roy's Identity, envelop theorem and Duality; Demand Function: Compensating & Equivalent Variation, Slutsky equation and Inter-temporal Choice; Demand Behaviour: Time and search, Income-Leisure Trade-Off, Household decision models.

Suggested Readings:

Jeffrey, M. Perloff (1999). Microeconomics, Addison-Wesley
 Gravelle, H. & Rees, R., (2004). Microeconomics (3rd ed.), Longman, London
 Jehle, G. and P. Reny (2001). Advanced Microeconomic Theory, Addison Wesley
 Mas-Collel, Andreu, Michael D. Whinston and Jenry R Green, (2007). Microeconomic Theory, Oxford University Press, New Delhi
 Varian, Hal R. (2000). Microeconomics Analysis, New York, W.W. Norton

Module 2: Production function:

Homogeneous and Homothetic Production functions, isoquants; Cost minimization - cost equation and cost function, short run and long run cost curves, the Envelope Theorem, profit equation and profit function, Shephard's Lemma and Hotelling's Lemma, CRS and the Theory of Firm.

Suggested Readings:

Jeffrey, M. Perloff (1999). Microeconomics, Addison-Wesley
 Gravelle, H. & Rees, R., (2004). Microeconomics (3rd ed.), Longman, London
 Jehle, G. and P. Reny (2001). Advanced Microeconomic Theory, Addison Wesley
 Mas-Collel, Andreu, Michael D. Whinston and Jenry R Green, (2007). Microeconomic Theory, Oxford University Press, New Delhi
 Varian, Hal R. (2000). Microeconomics Analysis, New York, W.W. Norton

Module 3: Theory of games and strategic behaviour of firms

Cooperative vs non-cooperative games, extensive form representation of a game, strategies and the normal form representation of a game; simultaneous move games – dominant and dominated strategies, Nash equilibrium game of incomplete information, finite and infinite games
Cooperative Oligopoly Models, Cournot Model of Non-cooperative Behaviour, Stackelberg Model of Non-cooperative Behaviour, Pricing – Bertrand Equilibrium with Identical and Differentiated Products

Suggested Readings:

Jeffrey, M. Perloff (1999). *Microeconomics*, Addison-Wesley

Gravelle, H. & R. Rees – (3rd ed.) (2004). *Microeconomics*, Longman, London

Jehle, G. and P. Reny. (2001). *Advanced Microeconomic Theory*, Addison Wesley

Mas-Colell, Andreu, Michael D. Whinston and Jerry R Green. (2007). *Microeconomic Theory*, Oxford University Press, New Delhi

Laffont, J.J. & David Martimort. (2002). *Theory of Incentives: Principal-Agent Model*, Princeton University Press

Course Syllabus: (Group B)

Module 4: Macro-economy and its Problems

Major macroeconomic issues--- Major schools of thought in macroeconomics---Macroeconomic stability and policy effects

Suggested Reading:

Sikdar, S. (2006), *Principles of Macroeconomics*

Module 5: Early Keynesian Models: Closed and Open Economy Frameworks

The hallmarks of the Keynesian framework – Effective demand, liquidity preference, downward wage rigidity – Extensions of the original Keynesian framework – Sticky wages – Fiscal and monetary expansion with sticky wages – Supply shocks and aggregate demand policy – Introduction of the external sector – Mundell-Fleming Model – Monetary and Fiscal Policy in an open economy – Fixed vs. flexible exchange rates – Insulation of the economy from foreign shocks under flexible exchange rates.

Suggested Readings:

Dornbusch, R. And S. Fisher, *Macroeconomics* (3/e)

Froyen, R.T. (1993), *Macroeconomics: Theories and Policies*

Dornbusch, R. (1980). *Open Economy Macroeconomics*

Module 6: Monetarist Counter-Approach

Genesis of monetarism – Basic features of monetarism – Keynesian vs. monetarist policy prescriptions

Suggested Readings:

Friedman, M. (1968), ‘The Role of Monetary Policy’ in *American Economic Review*, Vol.58

Modigliani, F. (1977), ‘The Monetarist Controversy or, Should We Forsake Stabilization Policies’ in *American Economic Review*, Vol. 69

Module 7: Disequilibrium Macroeconomics

Patinkin’s neoclassical synthesis – non-compatibility of orthodox microeconomic theory and Keynesian macroeconomics – Walras’ law – Micro foundations of macroeconomics---Notional and effective demand functions ---Dual decision hypothesis of Clower -Traditional preference theory as a special case of the dual decision theory---Concept of constrained demand – A general disequilibrium model involving both excess supply and excess demand situations---Concepts of effective supply and forced saving.

Suggested Readings:

Patinkin, D. (1965), *Money, Interest and Prices*

Clower, R. W. (ed) (1970), *The Keynesian Counter Revolution: A Theoretical Appraisal*.

Barro, R.J. and H.I Grossman (1971), ‘A General Disequilibrium Model of Income and Employment’, *American Economic Review*, Vol.61

Dasgupta, D. (1997), *The Macroeconomy: A Text Book View*

Advanced Readings:

Abel, A.B. And B.S. Bernake, *Macroeconomics* (4/e)

Ghosh, C. and A. Ghosh (2011), *Macroeconomics*

Snowdon, B. and H.R. Vane (2005), *Modern Macroeconomics*

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical Continuing Eval

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Previously mathematical economics and basic economics were treated as separate courses with 2 credit points each. Now these two courses are combined with one named Quantitative Economics – I under Core course with credit point 2. Now the new course is divided into two sections viz. Section – I which deals with mathematical economics and Section- II which deals with basic econometrics. A new topic of “Optimization under uncertainty” has been added in Section – I and “Errors in Variables” has been added in Section – II.

PG BOS Meeting Reference Number:

Course Code: ECONCCT0102N

Course Name: Quantitative Economics -1

Brief Course Description:

This course is divided into two sections. Section-I deals with Mathematical Economics-1 and the section-II deals with Basic Econometrics – I. Mathematical Economics-1 that is section-I basically deals with various static optimisation methods useful for the analytical exposition of micro foundation of economic theory. The course is intended to equip students with mathematical skills necessary to carry out quantitative analysis in the area of interest of the students. On the other hand Basic Econometrics – I that is section-II basically deals with various types of data related to Economics, Data collection techniques, various distribution of the data set , Ordinary least square method for estimating various economic relationships.

Prerequisite(s) and / or Notes

- Mathematics at the undergraduate level.
- Rudimentary knowledge of Statistics

Previous years questions will not be given importance, students will be evaluated on the basis of topics analysed or discussed in the classes of each year.

(Section-I) Mathematical Economics-1

Full Marks: 50

Course Objectives:

Knowledge gained:

- Knowledge about preliminary mathematical concepts specially related to real valued, Concave, quasi concave and continuous functions
- Concept of matrices with some properties e.g semi definite
- Basic concepts of set theories specially convex, hyper planes, half spaces, separating and supporting hyper planes
- Static optimization and its related concepts
- Concepts of comparative statics

Skill gained

- Computation of eigen values and eigen vectors
- Mathematical calculation of static optimization
- Application of Lagrange’s method and Khun-Thuker condition with the help of calculus

Competency developed

- Foundation to understand the axiomatic approach to explain micro economic theories, and
- How micro economic theories can be portrayed as optimization problems

Course Syllabus:

Module 1. Introduction:

Mathematical preliminaries: Real-valued, concave and quasiconcave functions; Matrices: Negative (semi) definiteness and other properties; Continuous functions and compact sets; Convex sets, hyperplanes, and halfspaces: separating and supporting hyperplanes.

Module2. Static Optimization Methods:

Sign definiteness of quadratic forms, Eigenvalues and Eigenvectors; Existence of Optima– the Weierstrass’ theorem and Fixed-point Theorems; Unconstrained Optimization; Optimization with (a) Equality Constraints (b) Inequality Constraints– Lagrange's Method and the Kuhn-Tucker Conditions; Optimization under uncertainty;

Module3. Comparative statics:

the value function, Envelope Theorem and Duality– Economic applications

Suggested Reading:

Chiang and Wainwright (2005), Fundamental Methods of Mathematical Economics, McGraw-Hill.

Dixit, A.K (1990), Optimization in Economic Theory, OUP.

Silberberg, E. and W. Suen (2000), The Structure of Economics: A Mathematical Analysis, McGraw-Hill.

Simon, C.P. and L. Blume (1994), Mathematics for Economists, Norton

Sundaram, R.K. (1996), A First Course in Optimization Theory, CUP

Section-II (Basic Econometrics – I)

Full Marks: 50

Course Objectives:

Knowledge gained:

- Importance of studying Econometrics as a branch of Economics
- Concepts & classification of data related to economic studies
- Concept of various distribution (t, chi square, F, etc.)

- Concept of error term
- Concept about correlation and regression
- Concepts of various types of error in variables and to recognize the presence of errors in variables

Skill gained:

- Basic idea about data collection through primary survey
- How to apply Ordinary least square technique for estimation of economic relationships using excel
- How to judge the statistical significance of an estimation
- Estimation of a multiple regression model using excel

Competency developed:

- Primary idea developed for formulating questionnaire
- Can able to extract data analysis tool pack in computer
- Can able to run a regression through spread sheet
- Can able to explain the regression results

Course Syllabus:

Module 1. Introduction:

Definition, Scope and Division of Econometrics, Collection of Data: Primary Data, Secondary Data, Various Methods of Collection of Primary Data, Census and Sample of Data, Various Sampling Techniques, Correlation theory

Module 2. Simple Regression Model:

Distribution, t, Chi square & F, concept of confidence interval, assumptions of the linear stochastic regression model, The tests of the goodness of fit with r^2 , test of significance of the parameters of the estimates, test of significance for the sample correlation coefficient, desirable properties of estimators, Properties of the Least Square estimators,

Module 3. Multiple Regression Model

Model with two explanatory Variables, The general regression Model, Partial Correlation Coefficients, Extension of the linear regression model to nonlinear relationships

Module 4. Errors in Variables

Plausibility of the assumption of no measurement errors, Consequences of the violation of the assumption of no errors of measurement, testing for errors in the repressors, solutions for the case of errors in variables

Suggested Reading:

Gujarati, D.N. (2003), Basic Econometrics, 4th Edition, Tata-MaGraw-Hill,

Koutsoyiannis, A. (2nd Edition) Theory of Econometrics (2nd Edition), Oxford University Press

Wooldridge, J.M. (2008), Introductory Econometrics-A Modern Approach.3rd Edition, India Edition

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical:

Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Previously there were two courses of 50 marks each in Semester I & II. Syllabus of I & II has been combined (with omission of some portions) as History of Economic Ideas under Core 3.

PG BOS Meeting Reference Number:

Course Code: ECONCCT0103N

Course Name: History of Economics Ideas

Brief Course Description:

The course is called History of Economic Ideas. This course is meant for discussion and analysis of economics ideas of different schools of Economics. It covers economic ideas from Ancient period to Modern Period. To be precise it covers economics ideas from Ancient Greek Thinkers to Keynesians in the modern period. Not only the economic ideas but also at occasions the context and background in which historical events are also included will be discussed.

Prerequisite(s) and/or Note(s): Basic economics

Course Objectives:

The goal of this course is to acquaint students with the origin and development of economic ideas from ancient to recent times. This course will help students to understand economic thinking of the people of different regions of the world in the past. Along with the ideas they will also know about various economic events and problems that led to origination and evolution of these ideas. In this course students can gain knowledge about economic ideas of different schools of economics along with the views and perceptions that these schools had on different economic events, issues and problems. They will also get knowledge about the economic ideas of most influential thinkers in different periods in the past. Even though modern economics is said to have originated during Classical Period, but in this course, students will not only acquire knowledge about economic ideas of different schools and thinkers after Classical Period but also the period before that so that they can make a clear distinction compare and differentiate between the ideas of pre-classical and post-classical period.

Knowledge acquired:

- i) get conversant with different economic problems, issues and events of economic importance, at different period of time.
- ii) know about economic ideas of important economic thinkers from different schools and at different time period.

Skills gained:

- (1) ability to examine and analyse various economic ideas of the past and make critical distinction between the views of one school of thought and another as well as one thinker and another.

Course Syllabus:

Module 1: Introduction to the History of Economic Ideas

History of economic thought: Introduction; Methodological Approach; Aim, Objectives

Module 2: Mercantilism and Physiocracy

Mercantilism: Power Versus Plenty in Mercantilism; Mercantilist as Protectionist and Monetary System; Theory of Growth and Employment; Mercantilism and Underdeveloped Nations; Physiocracy; Social Philosophy; Economic Analysis; Quesnay's Tableau Economies; Economic Growth and Economic Policy; Physiocrats and Underdeveloped Nations.

Module 3: Classical Economics

Overview of Classical Economics; Classical Theory of Growth and Under developed Countries; Adam Smith: As Father of Economics; The Philosophy of Naturalism and Optimism and its Practical Implications; The Doctrine of Laissez-faire; The Theory of Distribution; T. R Malthus: The Principle of Population; David Ricardo: The Economic Method; The Theory of Distribution; Profits and the Fundamental Theorem of Distribution; The Theory of Value- Search for an Invariable Measure; On Economic Policy; J.S Mill: The Economic Method; Political Philosophy and Economic Policy- Utilitarianism, Economic Role of Government; The Principles of Political Economy-Laws of Production and Distribution; Mill and Underdeveloped Countries; Karl Marx: Marxian Philosophy- Dialectical Materialism; Historical Materialism; Mode of Production; The Labour Theory of Value- Determination of Exchange value; The Theory of Surplus Value-Rate of Surplus Value; The Theory of Prices of the Transformation Problem; The Theory of Development; Immiserisation of Proletariat and Wage Theory; The Falling Rate of Profit; The Reproduction Schema.

Module 4: Neoclassical Economics

Alfred Marshal: Economic Science and Economic Policy- Substance and Method of Economics; On Value and Distribution- The General Principle of Demand and Supply; Utility and Demand; Cost and Supply; The Theory of Distribution; Importance of Time Element; Tools of Analysis- Consumer's Surplus, Elasticity, Internal and External Economies; Stanley Jevons; The Theory of Value; Utility theory; Theory of Exchange; Theory of Labour; Leon Walras: Development of General Equilibrium Analysis; Excess Demand Function; Backward Bending Supply; Market Stability; General Equilibrium in Consumption and Walras's Law; Pareto and Walras.

Module 5: Austrian and Institutional Economics

A. Austrian Economics: Carl Menger: Economic Good and Valuation Process; The Equi-marginal Principle; Imputation and Factor Values; Price Series and Index Numbers; Friedrich von Wieser; Value Theory; The Antinomy of Value; Weiser's Theory of Imputation; Welfare Theory; Eugen von Bohm-Bawerk: Subjective value and Exchange; Capital Theory; Interest Rate.

B. Institutionalism: Features of Institutional Economics; Veblen's Positive Analysis; Theory of Leisure Class; Conspicuous Consumption; Economic Change, Capitalism and The Future.

Suggested Readings:

Backhaus, J. G. (2011). *Handbook of the history of economic thought*. Springer.

Blaug, M. (1997). *Economic theory in retrospect*. Cambridge university press.

Ekelund Jr, R. B., & Hébert, R. F. (2013). *A history of economic theory and method*. Waveland Press. Guide, C. and Rist, C., *A History of Economic Doctrine*

Haney, L. H. (1911). *History of economic thought: a critical account of the origin and development of the economic theories of the leading thinkers in the leading nations*. Macmillan.

Heilbroner, R. L. (2011). *The worldly philosophers: The lives, times and ideas of the great economic thinkers*. Simon and Schuster.

Hunt, E. K., & Lautzenheiser, M. (2015). *History of economic thought: A critical perspective*. Routledge.

Kurz, H. (2016). *Economic Thought A Brief History*. Columbia University Press

Landreth, H., & Colander, D. C. (2001). *History of economic thought*

Medema, S.G. and Samuels, W.J. (ed.), *The History of Economic Thought: A Reader*

Negishi, T. (2014). *History of economic theory*. Elsevier

Robbins, L., & Robbins, L. (2000). *A history of economic thought*. Princeton University Press.

Roncaglia, A. (2006). *The wealth of ideas: A history of economic thought*. Cambridge University Press.

Rothbard, M. N. (1995). *An Austrian perspective on the history of economic thought* (Vol. 2). Ludwig von Mises Institute.

Samuels, W. J., Biddle, J. E., & Davis, J. B. (Eds.). (2008). *A companion to the history of economic thought*. John Wiley & Sons.

Screpanti, E., & Zamagni, S. (2005). *An outline of the history of economic thought*. OUP Oxford.

Schumpeter, J. A. (2006). *History of economic analysis*. Routledge.

Roll, E. (1954). *A History of Economic Thought: Rev. and Enl.* Faber & Faber.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

The course is restructured from the erstwhile course on Field Survey I and Group Discussion (107). Earlier students would get opportunity to meet a rural agrarian society for the purpose of survey for the first time in the first semester with their prior knowledge on basic statistical tools. After attaining some advance level of understanding on the related issues, they would get another opportunity to visit an agrarian society in their 3rd semester. In both the cases, they were required to submit reports in group and participate in group discussions. The present course is designed to rejuvenate the understanding of the students on basic statistical tools from the perspective of conducting a field survey and to put enough importance to individual report writing. Three modules are formulated accordingly. With this level of experience, they will get another opportunity for group work on survey research with their Core Course on Field Survey and Group Discussion in the 3rd Semester.

PG BOS Meeting Reference Number:

Course Code: ECONDEOP0101A

Course Name: Survey Methods and Application

Brief Course Description:

DSE 1A deals with the introduction to survey methods; field survey activities; and instructions on report writing.

Prerequisite(s) and/or Note(s):

- (1) Undergraduate level understanding of basic statistics.
- (2) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable them to understand the purpose and methods of survey.
- (2) Hands-on training on conducting field survey.
- (3) Analysing survey data with graphical representation.
- (4) Details of report writing.

Skills gained:

- (1) Conducting field surveys.
- (2) Analysis of survey data with basic descriptive statistics.
- (3) Basic skills of report writing.
- (4) Understanding of the problems that prevail in the surveyed area.

Competency Developed:

- (1) Capability of conducting small research projects using self-collected primary data.

Course Syllabus:

Module 1 Introduction to Survey Methods

Primary Data, Meaning and Characteristics of secondary data and its advantages and disadvantages; Data Collection using questionnaire/schedule, various Interview Methods; Selection of appropriate method for data collection; Preparation of Questionnaire.

Meaning and purpose of survey; Types of survey; Census; Sample survey; Concepts of variable and attribute; Concepts and purpose of Sampling; different types of sampling and their use with examples.

Reading list:

Fowler, F. J. (2009). Survey research methods (4th ed.) (4th ed.). SAGE Publications, Inc.
<https://dx.doi.org/10.4135/9781452230184>.

Glasow, Priscilla A. (2005). Fundamentals of Survey Research Methodology, Virginia McLean.

Groves, Robert M. et. al. (2004). Survey Methodology. Hoboken, NJ: John Wiley & Sons.
 (Any text book of Statistics).

Module 2 Field Survey

Each student is required to participate in the off-campus field survey to cover at least 20 households and submit individual survey report.

Reading list:

(Activity based)

Module 3 Report Writing

Meaning of Interpretation of data, techniques of interpretation, precaution in interpretation; analysing survey data – using descriptive statistics, graphical representation of data using word processing software and spreadsheets; significance of report writing, layout of the Research Report, types of reports, mechanics of writing a research report, precautions for writing research reports.

Reading list:

Kothari, C.R. (1988). Research Methodology - Methods and Techniques, Wiley Eastern Ltd., New Delhi.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

PG BOS Meeting Reference Number:

Course Code: ECONDEOP0101B

Course Name: Data Analysis and Application I

Brief Course Description:

This course deals with the introduction to Introduction to Secondary data; activities related to data analysis; and instructions on report writing.

Prerequisite(s) and/or Note(s):

- (3) Undergraduate level understanding of basic statistics and 10+2 level mathematics.
- (4) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable them to understand secondary data and their sources.
- (2) Hands-on training on conducting data analysis.
- (3) Use of computer for graphical representation.
- (4) Details of report writing.

Skills gained:

- (1) Use of secondary data.
- (2) Analysis of secondary data with basic descriptive statistics.
- (3) Basic skills of report writing.
- (4) Understanding of the problems that prevail in the concerned area/topic.

Competency Developed:

- (2) Capability of conducting small research projects using secondary data.

Course Syllabus:

Module 1 Introduction to Secondary data

Secondary Data, Meaning, Characteristics of secondary data and its advantages and disadvantages; Sources of secondary data. Elementary Mathematical Tools and their applications – Permutations; Combinations; Binomial Expansion and Exponential Functions; Binomial Expansion; Exponential Function; Ratios, Proportions and Rates; Arithmetic, Geometric and Exponential Rates of Growth; Interpolation and Graduation.

Reading list:

Fowler, F. J. (2009). Survey research methods (4th ed.) (4th ed.). SAGE Publications, Inc.

<https://dx.doi.org/10.4135/9781452230184>.

Glasow, Priscilla A. (2005). Fundamentals of Survey Research Methodology, Virginia McLean.

Groves, Robert M. et. al. (2004). Survey Methodology. Hoboken, NJ: John Wiley & Sons.

(Any text book of Statistics).

Module 2 Data Analysis

Each student is required to consider one secondary dataset on any relevant topic on Indian Economy for analysis (as recommended by the Department) and submit individual study report.

Reading list:

(Activity based)

Module 3 Report Writing

Meaning of Interpretation of data, techniques of interpretation, precaution in interpretation; analysing survey data – using descriptive statistics, graphical representation of data using word processing software and spreadsheets; working with formula and functions; significance of report writing, layout of the Research Report, types of reports, mechanics of writing a research report, precautions for writing research reports.

Suggested Readings:

Fowler, F. J. (2009). Survey research methods (4th ed.) (4th ed.). SAGE Publications, Inc.

<https://dx.doi.org/10.4135/9781452230184>.

Glasow, Priscilla A. (2005). Fundamentals of Survey Research Methodology, Virginia McLean.

Groves, Robert M. et. al. (2004). Survey Methodology. Hoboken, NJ: John Wiley & Sons.

Kothari, C.R. (1988). *Research Methodology - Methods and Techniques*, Wiley Eastern Ltd., New Delhi.

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SEMESTER- II

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Course 201 (2 credit) and 202 (2 credit) has been merged and modified to develop this course on Economic Theory II

PG BOS Meeting Reference Number:

Course Code: ECONCCT0201A

Course Name: ECONOMIC THEORY II

Brief Course Description:

The course is a continuation of the core course on Economic Theory I offered in semester 1. The course includes both microeconomic and macroeconomic theory. The focus of microeconomic theory is decision making under uncertainty and asymmetric distribution of information between the transacting parties.

Prior knowledge of under-graduate level economic theory along with high school mathematics is required for this course.

Revision of syllabus may take place before the beginning of semester and also modification may take place during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objective:

To develop understanding how decisions are made under uncertainty when there is limited information and also how economic-agents transact when distribution of information. To familiarise the students with the major developments in macroeconomic theory in later years and their critiques, as well as some of the non-conventional approaches to macroeconomics.

Course Learning Outcomes: On successful completion of the course, the students will be able to develop a good understanding of decision making under uncertainty and how economic agents make decisions with limited information. At the end of the course, the students will develop an understanding of how negotiations are made under asymmetric information conditions and how such sub-optimality problem can be addressed in economics. The course will help to develop an understanding the role of expectations in macroeconomics and gaining knowledge about the alternative theories of endogenous expectations formation. It will help gain an exposure to later developments in the Classical macroeconomic school of thought, i.e. the Real Business Cycle Hypothesis as well as the Keynesian counter-critique. Also, the course will help to gain exposure to later developments in the Keynesian macroeconomic school of thought, i.e. New Keynesian Economics and gaining insight into the policy prescriptions of the R.B.C theorists vs. the New Keynesians. In addition, students will get an idea about some non-conventional approaches to macroeconomics.

Course Content: (Group A)

Module 1: Decision making under Uncertainty

Choice under Uncertainty; Expected Utility Theory – objects of choice and prospect preference, Axiom of expected utility, Money lotteries and risk aversion, Risk aversion and preference, relation – Arrow-Pratt comparative risk aversion, Rothschild – Stiglitz comparative risk aversion Risk aversion – risk premium, indices of risk aversion, absolute risk aversion, global risk aversion, relative risk aversion, demand for insurance, risk spreading, risk pooling

Production under uncertainty; Risk neutral, risk averse

Suggested Readings:

Gravelle, H. & R. Rees – 3rd edition, 2004. *Microeconomics*, Longman, London

Jehle, G. and J. Reny –3rd edition, 2011, *Advanced Microeconomic Theory*, Pearson Education

Jean – Jacques Laffont, 1990 – The economics of uncertainty and information, MIT Press

Module 2: Decision-making under Asymmetric Information

Adverse Selection and Moral Hazard, basic Principal-Agent problem, complete information optimal contract, implementation of the first best, information rent, optimal contract under asymmetric information, introduction to auction theory, incomplete contracts.

Suggested Readings:

Gravelle, H. & R. Rees, (2004). *Microeconomics* (3rd ed.), Longman, London

Jehle, G. and J. Reny, (2011), *Advanced Microeconomic Theory* (3rd ed.), Pearson Education

Jean – Jacques Laffont, (1990). *The economics of uncertainty and information*, MIT Press

Jean – Jacques Laffont and David Martimort, (2002). *The Theory of Incentives: The Principal-Agent Model*, Princeton University Press, New Jersey

Module 3: New Classical Economics and the Rational Expectations Hypothesis

The role of expectations in macroeconomics – Keynes’ treatment of expectations – Adaptive Expectations Hypothesis– The Rational Expectations concept and its implications – the New Classical policy ineffectiveness postulate – A simple formal model of Rational Expectations – The Keynesian counter-critique.

Suggested Readings:

Froyen, R.T. (1993), *Macroeconomics-Theories and Policies*.

Begg, D.K.H (1982), *The Rational Expectations Revolution in Macroeconomics Theories and Evidence*

Ghosh, C. and A. Ghosh (2011), *Macroeconomics*

Module 4: Second Generation New Classical Directions

Real Business Cycle models – Central features – A simple real business cycle model – Effects of technology shocks – Fiscal and monetary policy impacts – Questions about Real Business Cycle models.

Suggested Readings:

Froyen, R.T. (1993), *Macroeconomics-Theories and Policies*.

Plosser, C. (1989), Understanding Real Business Cycles in *Journal of Economic Perspectives* (Summer)

Module 5: New Keynesian directions---the macroeconomics of wage and price rigidity

Real wage rigidity – The efficiency wage model – Wage determination in the efficiency wage model – Employment and unemployment in the efficiency wage model – Sources of price stickiness – Sticky price (menu cost) models – Monetary and fiscal policy – Insider-outsider models and hysteresis.

Suggested Readings:

Froyen, R.T. (1993), *Macroeconomics-Theories and Policies*.

Mankiw, N.G. (2002), *Macroeconomics*

Module 6: Alternative Approaches to Macroeconomics: A Brief Overview

The Austrian School of Macroeconomics---History and origin – Analytical framework – Major contributions – Critique – Supply-side Macroeconomics – Historical origins– Reaganomics – Policy prescriptions– Critique.

Suggested Readings:

Select article references to be given during Course

Advanced Reading:

Abel, A.B. And B.S. Bernake, *Macroeconomics* (4/e)

Romer, D. *Advanced Macroeconomics*,

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical

Continuing Evaluation

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Previously mathematical economics and basic economics were treated as separate courses with 2 credit points each. Now these two courses are combined with one named Quantitative Economics – II under Core course with credit point 2. Now the new course is divided into two sections viz. Section – I which deals with mathematical economics and Section- II which deals with basic econometrics. A new topic of “Bayesian Nash Equilibrium” has been added in Section – I and “Maximum Likelihood Estimation” and “Simultaneous Equation Models and Identification Problems” has been added in Section – II.

PG BOS Meeting Reference Number:

Course Code: ECONCCT0202A

Course Name: Quantitative Economics-II

Brief Course Description: This course is divided into two sections. Section-I deals with Mathematical Economics-I and the section-II deals with Basic Econometrics –II . Mathematical Economics-I that is section-I basically deals with dynamic economic analysis, dynamic optimization and static and dynamic game theory and Basic Econometrics –II that is section-II deals with diagnostic checking of OLS estimation in case of violations of any basic assumptions of Classical Linear Regression Model, concept of Maximum likelihood estimation, simultaneous equations model and Identification problems .

Prerequisite(s) and / or Notes

(1) Mathematics at the UG level

(2) Knowledge of course code: Quantitative Economics-I

Previous years questions will not be given importance, students will be evaluated on the basis of topics analysed / discussed or covered in the classes of each year.

Section-I (Mathematical Economics – II)

Full Marks: 50

Course Objectives:

Knowledge gained

- Basic concepts of differential equation, stability theory and phase diagram
- Basic elements related to application of dynamic optimization
- Concept of game theory

Skill gained

- Calculation of optimal control theory
- Dealing with different types of transversality condition
- Application of autonomous optimal control problems in real economic scenario

Competency developed

- Static and dynamic optimization techniques will be useful for future research work
- Real world economic problems can be converted into a game theoretic problem and various solution techniques may be applied to solve the empirical economic problem

Course Syllabus:

Module1. Elementary Concepts:

Differential Equations, Stability Theory, Phase Diagrams.

Module2. Elements of Dynamic Optimization:

Optimal Control Theory– the Pontryagin Maximal Principle– Fixed and variable endpoint problems– dealing with Different Types of Transversality Condition– Finite and infinite horizon problem– Autonomous optimal control problems with examples in Economics.

Module3. Game Theory:

Noncooperative games– Static and dynamic games under complete information– Concepts of Nash equilibrium and subgame perfection– Repeated games – Static and dynamic games of incomplete information–Bayesian Nash equilibrium and perfect Bayesian equilibrium. (12 Hours)

Suggested Readings:

Aliprantis, C.D. and S.K. Chakrabarti (1999): Games and Decision Making, OUP.

Binmore, K. G (1992): Fun and Games: A Text on Game Theory, D.C. Heath.

Chiang, A.C (1992): Dynamic Optimization, McGraw-Hill.

Dowling, E. T (2007): Introduction to Mathematical Economics, Schaum’s Outlines, McGraw-Hill.

Fudenberg, D. and J. Tirole (1991): Game Theory, MIT Press.

Gibbons, R (1992): Game Theory for Applied Economists, Princeton University Press.

Kamien& Schwartz (1981): Dynamic Optimization, North Holland.

Osborne, Martin, J. (2004): An Introduction to Game Theory, OUP.

Oz Shy (1997): Industrial Organization-Theory and Applications, MIT Press.

Tirole, J (1988): Theory of Industrial Organization, Appendix on Game Theory, MIT Press.

Section-II (Basic Econometrics – II)

Full Marks: 50

Course Objectives:

Knowledge gained:

- Concept of Serial correlation
- Possible causes and impacts of autocorrelation
- Concepts of Heteroscedasticity
- Possible causes for the presence and its impact on estimation

- Concepts of multicollinearity and its impact on estimated parameter
- Basic concept about Maximum likelihood function
- Concepts of simultaneous equations models and its estimation techniques

Skill gained:

- Skill to judge the presence of autocorrelation
- Various tests to judge the presence of heteroscedastic
- Skill to solve the problem of heteroscedasticity, autocorrelation and multicollinearity
- Skill to estimate the simultaneous equations models

Competency developed:

- Can able to diagnose the reliability of regression results

Course Syllabus:

Module 1. Problems of Autocorrelation

The assumptions, sources and plausibility and consequences of the auto correlation, tests for auto correlation, solution and methods for estimating the auto correlation parameters

Module 2. Problems Heteroscedasticity

The Nature of Heteroscedasticity, OLS Estimation in the Presence of Heteroscedasticity, Consequences in the Presence of Heteroscedasticity, Detection of Heteroscedasticity, Remedial Measures

Module 3. Problems of Multicollinearity

The nature of Multicollinearity, Estimation in the presence of Perfect Multicollinearity, Practical Consequences of Multicollinearity, Detection of Multicollinearity, Remedial Measures

Module 4: Maximum Likelihood Estimation:

Introduction to the Method of Maximum Likelihood Estimation, Various stages of the maximum likelihood method, The Maximum Likelihood Principle as applied to a Simple Linear Regression Model

Module 5: Simultaneous Equation Models and Identification Problems:

The nature of Simultaneous Equation Models, Simultaneous equation Bias, Approaches to Estimation, Recursive Models and Ordinary Least Squares, the Method of Indirect Least Squares (ILS), the Method of Two-Stage Least Squares (2SLS), Rules for Identification, A Test for Simultaneity, Tests for Exogeneity

Suggested Readings:

Koutsoyiannis, A. (2nd Edition) Theory of Econometrics (2nd Edition), Oxford University Press.

Gujarati, D.N. (2003), Basic Econometrics, 4th Edition, Tata-MaGraw-Hill,

Wooldridge, J.M. (2008), Introductory Econometrics-A Modern Approach.3rd Edition, India Edition.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:
 Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

- Core
- Department Specific Elective
- Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

- Minor (up to 15%)
- Moderate (>15% and up to 50%)
- Major (> 50%)

Summary of changes

The course is restructured combining the erstwhile two courses of 2 credits namely, 106 & 206 with moderate changes.

PG BOS Meeting Reference Number:

Course Code: ECONCCT0203N

Course Name: Public Economics

Brief Course Description:

This course deals with various aspects of governmental intervention in a mixed economic system including budget making, fiscal policy and public debt management, macro and micro aspects of public expenditure, Centre-State financial relations in a federal set up.

- Prerequisite(s) and/or Note(s): A basic course in public finance at undergraduate level needs to be completed.

Knowledge acquired:

- (1) Fiscal and financial functioning of government.
- (2) Intergovernmental (Centre, State and local) financial relations.
- (3) Nitty-gritty of public budget making and public debt management.

Skills gained:

- (1) Clearly understand the right jurisdictions of the public versus the private sector to provide goods and services to the citizens.
- (2) Ability to understand and analyse government budget.
- (3) Ability to formulate or modify fiscal policy and public debt management.

Competency developed:

- Students will learn the fundamental reasons for governmental intervention in a mixed economy.
- Students will gain the competency to understand the fiscal and financial functioning of government.
- Students will be able to analyze the various aspects of public budget including revenue and expenditure and social and developmental implications of the budget.

Course Syllabus:

Module 1: Theory of Government Intervention

Economic Rationale of the Modern Government; Welfare Economics and Governmental Intervention – View of the State; Changing Perspective – Government in a Mixed Economy; Public, Private and Merit Goods - Theory of Public Goods.

Suggested Readings:

Brown, C. V. and P. M. Jackson (1982): *Public Sector Economics*, Martin Robertson, Oxford. [4/e, Blackwell, 1996]

Mithani, D. M. (1993): *Principles of Public Finance and Fiscal Policy*, Himalaya Publishing House, Bombay.

Module 2: Externalities and the Role of the Government

Consumption, Production and Technological Externalities; Direct Negotiation versus Governmental Intervention; Negative externalities and Spillover Effects; Public Pricing and Environmental Policy.

Suggested Readings:

Due, John F. and Ann F. Friedlander (PB Indian edition 1997): *Government Finance: Economics of the Public Sector*, AITBS Publishers & Distributors (Regd.), Delhi.

Rosen, Harvey S. and Ted Gayer (2007): *Public Finance*, (8/e), McGraw-Hill Irwin.

Module 3: Public Expenditure

Causes of the Growth of Public Expenditure in Modern Times; Macro Models of Public Expenditure; A Microeconomic Model of Public Expenditure; Micro Determinants of Public Expenditure: Population Growth - Service Environment - Quality of Publicly Supplied Goods - The Price of Public Sector Inputs; Tax Equity and Efficiency – Evaluation of Benefit and Ability to Pay Theories of Taxation.

Suggested Readings:

Mithani, D. M. (1993): *Principles of Public Finance and Fiscal Policy*, Himalaya Publishing House, Bombay.

Brown, C. V. and P. M. Jackson (1982): *Public Sector Economics*, Martin Robertson, Oxford. [4/e, Blackwell, 1996]

Chaudhury, Rabindra Kumar (2008): *Public Finance and Policy*, Kalyani Publishers, Ludhiana.

Module 4: Mechanics of Budget

Budget Terms and Budget Concepts - Importance, Objective and Modern Classification of Budget – Types of Budgets; Different Concepts of Budget Deficit; Budgetary Trend and Policy in India; Analysis of the Latest Central Government Budget in India.

Suggested Readings:

Chaudhury, Rabindra Kumar (2008): *Public Finance and Policy*, Kalyani Publishers, Ludhiana.

Mundle, S. (1999): *Public Finance Policy: Issues for India*, Oxford University Press, Delhi.

Module 5: Fiscal Federalism

The Division of Responsibilities; Principles of Fiscal Federalism: Club Theory and Local Public Goods; Tiebout Hypothesis; Issues in Indian Fiscal Federalism

Suggested Readings:

Chaudhury, Rabindra Kumar (2008): *Public Finance and Policy*, Kalyani Publishers, Ludhiana.

Ghosh, Ambar and Chandana Ghosh (2008), *Public Sector Economics*, Prentice Hall of India, Private Limited, New Delhi.

Aronson, J. R. (...): *Public Finance*, MacGrawhill Book Company.

Module 6: Fiscal Policy and Debt Management

Fiscal Policy and its Link with Monetary Operations; Budget Deficit and its Implications; Fiscal policy for Stabilization - Limits of Fiscal Policy; Management of Public Debt - Ricardian Equivalence.

Suggested Readings:

Chaudhury, Rabindra Kumar (2008): *Public Finance and Policy*, Kalyani Publishers, Ludhiana.

Ghosh, Ambar and Chandana Ghosh (2008), *Public Sector Economics*, Prentice Hall of India, Private Limited, New Delhi.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:
 Semester: Semester I Semester II Semester III Semester IV
 Course Name:

Course Code:
 Course Credit:
 Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core
 Department Specific Elective
 Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)
 Moderate (>15% and up to 50%)
 Major (> 50%)

Summary of changes

The course is slightly restructured from erstwhile Course 408. Under Course 408, one used to write a term paper in the final semester on a topic assigned by the Department. In the present syllabus, it is brought to the Second Semester. The main objective of it is to allow student to explore independently on a certain topic of research before moving to the Third Semester and choose further DSEs (erstwhile special papers). Also, under the old syllabus, there was no specific style sheet/instruction for writing the term paper. Under the present system, it has been decided to follow the style sheet of the Indian Economic Journal (it is a prominent Journal published by the Indian Economic Association regularly since 1946), which is available at: <https://journals.sagepub.com/author-instructions/iej#t13>.

PG BOS Meeting Reference Number:

Course Code: ECONDEOP0201A

Course Name: Term Paper

Brief Course Description:

This course deals with preparation of term paper on topics related to contemporary issues on India Economy as specified by the Department.

Prerequisite(s) and/or Note(s):

- (5) Undergraduate level understanding of issues related Indian Economy and development.
- (6) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable students to write a term paper.
- (2) This will be their first step to write a research paper.

Skills gained:

- (1) Writing a research paper.

Competency Developed:

- (3) Capability of writing a research paper following a style sheet of reputed Journal under UGC Care list.

Course Syllabus:

A student is required to write a term paper on topics related to contemporary issues on India Economy as specified by the Department and under the supervision of a teacher of the Department following the style sheet of the Indian Economic Journal (it is a prominent Journal published by the Indian Economic Association regularly since 1946), which is available at: <https://journals.sagepub.com/author-instructions/iej#t13>. Students are required to submit it in soft copy to the Department at the beginning of the semester-end examination or as specified.

Term papers should comprise the following sections:

1. Title page
2. Abstract (200 words max.)
3. At least five key words & two JEL Codes

4. Introduction
5. Review of the Literature
6. Results and Discussion
7. Summary and Conclusion
8. References
9. Annexure (if any)

Figures, including maps, graphs and drawings, should not be larger than page size. They should be numbered and arranged as per their references in the text. All photographs and scanned images should have a resolution of minimum 300 dpi and 1,500 pixels and their format should be TIFF or JPEG.

Due permissions should be taken for copyright protected photographs/images. Even for photographs/images available in the public domain, it should be clearly ascertained whether or not their reproduction requires permission for purposes of publishing (which is a profit-making endeavour).

All photographs/scanned images should be provided separately in a folder along with the main article.

All figures and tables should be cited in the text and should have the source (a specific URL, a reference or, if it is author's own work, 'The author(s)') mentioned irrespective of whether or not they require permissions.

A term paper under this course should be between 8,000 and 9,000 words, inclusive of references, footnotes, endnotes, figures, tables, and annexures.

Suggested Readings:

Any relevant study materials as specified by the Mentors.

(Additional references if required will be provided during the course.)

In case of any changes in Program Outcomes (PO) or Program Specific Outcomes (PSO), please refer the website <https://nbu.ac.in/acr/programmes.aspx> and share the modified PO-PSO in the same format.

TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code:

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

- Core
- Department Specific Elective
- Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity ? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

- Minor (up to 15%)
- Moderate (>15% and up to 50%)
- Major (> 50%)

Summary of changes

The course is newly introduced.

PG BOS Meeting Reference Number:

Course Code: ECONDEOP0201B

Course Name: Data Analysis and Application II

Brief Course Description:

This course deals with the Introduction to Large-scale surveys and Big data; Use of SPSS (Statistical Package for the Social Sciences) in data analysis; and A Project on Data Analysis.

Prerequisite(s) and/or Note(s):

- (7) Completion of Course on Data Analysis and Application I in the first semester.
- (8) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable them to understand large-scale survey and Big Data and their sources.
- (2) Use of SPSS in preparing database.
- (3) Use of SPSS in manipulation of data.
- (4) Use of SPSS in data analysis.

Skills gained:

- (1) Use of large-scale survey data.
- (2) Use of Big data.
- (3) Analysis of large-scale survey data using SPSS.

Competency Developed:

- (4) Capability of conducting small research projects using large-scale survey data.

Course Syllabus:

Module 1 Introduction to Large-scale surveys and Big Data

Concept of Big Data; Characteristics and Accuracy of Big Data; Data Analytics; Data Error; Missing Data or Non-response; Dealing with Missing Data; Introduction to large-scale sample surveys; Ethical considerations in large scale sample surveys.

Reading list

IBM (2021). IBM SPSS Statistics 28 Brief Guide. New York, IBM SPSS. (Available at: https://www.ibm.com/docs/en/SSLVMB_28.0.0/pdf/IBM_SPSS_Statistics_Brief_Guide.pdf)

Module 2 Use of SPSS (Statistical Package for the Social Sciences) in data analysis

Hands-on training on use of SPSS with special reference to - Database Structure; Data Manipulation; and Statistical Analysis.

Reading list

IBM (2021). IBM SPSS Statistics 28 Brief Guide. New York, IBM SPSS. (Available at: https://www.ibm.com/docs/en/SSLVMB_28.0.0/pdf/IBM_SPSS_Statistics_Brief_Guide.pdf)

Module 3 A Project on Data Analysis

Each student is required to consider one large-scale sample survey for analysis (as recommended by the Department) and submit individual study report.

Suggested Readings (Additional):

Fowler, F. J. (2009). Survey research methods (4th ed.) (4th ed.). SAGE Publications, Inc. <https://dx.doi.org/10.4135/9781452230184>.

Glasow, Priscilla A. (2005). Fundamentals of Survey Research Methodology, Virginia, McLean.

Groves, Robert M. et. al. (2004). Survey Methodology. Hoboken, NJ, John Wiley & Sons.

Field, A. (2013). Discovering Statistics Using IBM SPSS Statistics. Sussex, Sage.

(Any text book of Statistics & Internet resources on Big Data).

In case of any changes in Program Outcomes (PO) or Program Specific Outcomes (PSO), please refer the website <https://nbu.ac.in/acr/programmes.aspx> and share the modified PO-PSO in the same format.

SEMESTER- III

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

While the modalities of the course remain the same as in erstwhile Course 408, activities increased in regard to research and sampling designs as well as data analysis using SPSS and/or STATA.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Field Survey and Group Discussion

Brief Course Description:

Core 7 deals with activities related to off-campus field survey in groups and followed by group discussions and submission of reports prepared by different groups.

Prerequisite(s) and/or Note(s):

- (1) Postgraduate level understanding of relevant issues.
- (2) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Syllabus:

Students are required to participate in activities related to off-campus field survey in groups followed by group discussions and submission of final reports prepared by different groups. Exercises in relation with research and sampling design is compulsory for all and each group is required to consider a sample size, which is statistically significant and analyse data using SPSS and/or STATA.

Suggested Readings:

Any relevant study materials as specified by the Department.
(Additional references if required will be provided during the course.)

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:
 Semester: Semester I Semester II Semester III Semester IV
 Course Name:
 Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:
 Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core
 Department Specific Elective
 Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)
 Moderate (>15% and up to 50%)
 Major (> 50%)

303A, 303B & 403A, 403B have been merged and modified to conform to the CBCS format.

PG BOS Meeting Reference Number:

Course Code:

Course Name: AGRICULTURAL ECONOMICS

Course Objective:

The Course aims to familiarize the students about the role of agriculture in economic development and various models of agricultural development. Within this broad framework, it further intends to introduce students to issues specific to agriculture in LDCs, as well as theories pertaining to the economics of agricultural operations and applied aspects of Farm Management.

Moreover, it provides an understanding of agricultural price policy and marketing of agricultural produce in the Indian context.

Course Learning Outcomes:

Through this Course, learners will have an in-depth understanding of the role of agriculture in economic development and gather knowledge about the models of agricultural development. They will further learn about the structure and characteristics of the agricultural sector in less developed countries like India and understand the various constraints specific to less developed agriculture. In addition, they will gain an exposure to theories regarding the operation of various institutions specific to the agricultural sector of LDCs, alternative theories of peasant economics, which are of particular relevance to developing countries like India, and the role of women in peasant agriculture. The students will also gain an in-depth knowledge about the core issues in Farm Management Analysis. This Course will further provide useful knowledge, understanding and information about the working of agricultural price policy as well as about the functioning of agricultural marketing, in the Indian context.

Course Syllabus

Module 1: Role of Agriculture in Economic Development

Product Contribution, Market Contribution, Factor Contribution and Foreign Exchange Contribution; Interdependence between Agriculture and Industry; Agricultural Transformation and Rural Development

Basic Readings:

Ghatak, Subrata and Ken Ingersent (1984), *Agriculture and Economic Development*, Select Book Service Syndicate, New Delhi by arrangement with Harvester Press Ltd., London.

Evenson, Robert E. & Prabhu Pingali (2010), *Hand Book of Agricultural Economics*, North-Holland.

Module 2: Models of Agricultural Development

Schultz's Model of Transforming Traditional Agriculture; Mellor's Model of Agricultural Development; Boserup's Model of Agricultural Development

Basic Readings:

Boserup, Ester (1965), *The Conditions of Agricultural Growth: The Economics of Agrarian Change Under Population Pressure*, George Allen & Unwin Ltd, London.

Mellor, John W. (1966): *The Economics of Agricultural Development*, Cornell University Press, Ithaca, N.Y.

Schultz, W. Schultz (1964): *Transforming Traditional Agriculture*, Yale University Press, New Haven, Connecticut.

Module 3: Agriculture in LDC: Structure, Characteristics and Constraints

Main attributes of traditional agriculture – Access to non-labour resources – Sources of risk and uncertainty – imperfections in land and credit markets – Imperfections in the structure of agricultural marketing – Remedial measures

Basic Reading:

Ghatak, S. and K. Ingersent: *Agriculture and Economic Development*.

Module 4: Institutions in Less Developed Agriculture: Sharecropping and Interlocking of Agrarian Markets

Marshallian critique of share tenancy – Cheung's analysis of share tenancy – Allocation of land among alternative forms of land use – Efficiency of owner versus tenant cultivation – Product-credit interlinkage – Differential interest rates – Labour-credit interlinkage – Lender's risk hypothesis – Employer's risk hypothesis – Consumption efficiency hypothesis and interlinkage – Collateral pricing.

Basic Readings:

Gangopadhyay, S.: *Some issues in Interlinked Agrarian Markets* in K. Basu, ed., *Agrarian Questions*.

Gupta, M. R.: *A Theory of Interlinkage based on the Consumption Efficiency Hypothesis*.

Rakshit, M.K.: *The Labour Surplus Economy*

Other selected articles to be referred during the course.

Module 5: Elements of Peasant Economics

The economic definition of peasants – Peasants and economic efficiency – Analysis of peasant risk behaviour – The Chayanov farm household model – New home economics – Women in peasant households

Basic Readings:

Ellis, F.: *Peasant Economics—Farm Households and Agrarian Development*

Module 6: Farm Management Analysis

Nature and scope of Farm Management Analysis – Relationship between farm management and production economics – Principles of measuring farm income – Alternative measures of farm income – Measuring farm costs – Alternative farm cost concepts in India – Farm planning vs. farm budgeting – Partial budgeting – Complete budgeting – Uses of farm budgets – Preparation of farm budgets

Basic Readings:

Yang: *Techniques of Farm Management Analysis*

Module 7: Agricultural Price Policy

Role of Price Policy; Price Policy in Traditional and Non-traditional Agriculture; Main Elements of Agricultural Price Policy; Agricultural Price Policy in India before 1965 and after 1965; Commission on Agricultural Costs and Prices; Objectives of Price Policy in India; Guidelines for Fixation of Prices of Crops; Critical Evaluation of India's Agricultural Price Policy; Suggestions for a Better Agricultural Price Policy

Basic Readings:

Norton, George W. and Jeffrey Alwang (1993), *Introduction to Economics of Agricultural Development*, McGraw-Hill, Inc.

Soni, R. N. (1998), *Leading Issues in Agricultural Economics* (3/e), Shoban Lal Nagin Chand & Co, Jalandhar.

Module 8: Agricultural Marketing

Need for an Efficient System of Agricultural Marketing; Criteria for Judging Efficiency of Agricultural Marketing, Efficiency of Agricultural Marketing System in India; Measures to Improve the Efficiency of Present State of Agricultural Marketing in India; Regulated Markets; Co-operative Marketing; Government and Agricultural Marketing

Basic Readings:

Norton, George W. and Jeffrey Alwang (1993), *Introduction to Economics of Agricultural Development*, McGraw-Hill, Inc.

Soni, R. N. (1998), *Leading Issues in Agricultural Economics* (3/e), Shoban Lal Nagin Chand & Co, Jalandhar.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

- Core
- Department Specific Elective
- Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

- Minor (up to 15%)
- Moderate (>15% and up to 50%)
- Major (> 50%)

Summary of changes

This is a modified syllabus from course 306B and 406B
 New topic introduced in this course is the Economics of Ideas in module 4.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Growth Economics

Brief Course Description:

This course deals with topics in growth economics. In particular, the course will cover the Keynesian analysis of economic growth (the Harrod-Domar model); technical change and the production Process; the neoclassical growth models and empirics; total factor productivity and growth accounting; endogenous growth theory (EGT) and related topics.

Revision of syllabus may take place before the beginning of semester and also modification may take place during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

To acquaint students with various theories of economic growth: the Keynesian theory, the neo-classical theory and the endogenous (or new) theories of economic growth and their empirical applications.

Learning outcomes:

- Understanding the stylized facts of economic growth.
- Comprehension of relationship between growth and development.
- Understanding the Keynesian analysis of economic growth with a comparison to some other growth models.
- A thorough understanding of literature on neoclassical growth models and empirics.
- A critical account of the extension of the neoclassical growth model and applications.
- Understanding the basic tenets of endogenous growth theories and including the economics of ideas.
- Familiarity with the wide-ranging policy issues and theories in growth economics.

Course Syllabus:

Module1. Basic Facts of Economic Growth:

The stylized facts of economic growth; the Keynesian analysis of economic growth – the Harrod-Domar model; technical change and the production process.

Module 2. The Neoclassical Model and its Extension:

The neoclassical growth models and empirics -The Solow–Swan model with technological progress– the transitional dynamics– economic convergence (absolute and conditional); Welfare,

the golden rule and dynamic inefficiency; The Mankiw, Romer, and Weil extension of the Solow model.

Module 3. Growth Accounting Framework:

Total Factor Productivity and Growth Accounting–Abramovitz -Solow growth Accounting Framework – Measuring Total Factor Productivity (TFP) Growth - Issues and Debates related to TFP.

Module 4. Endogenous Growth Theory (EGT):

The Basic AK Model – Human Capital and R&D based Models – Lucas and Romer model of economics of ideas-Schumpeterian Growth Models– Aghion and Howitt model.

Suggested Readings:

Acemoglu, D (2009): Introduction to Modern Economic Growth, Princeton University Press.

Barro, R.J. (1997): Macroeconomics, Selected Chapters, MIT.

Barro, R. J and Xavier Sala-i- Martin (2004): Economic Growth, PHI.

Blanchard, O.J. and Fischer, S (1989): Lectures on Macroeconomics, PHI.

Carlin Wendy and David Soskice (2005): Macroeconomics: Imperfections, Institutions, and Policies, OUP.

Jones, C.I (2002): Introduction to Economic Growth, W.W. Norton & Company.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Previously there were two courses of 50 marks and 2 credit points each in Semester III and Semester IV and now it has been changed to 50 marks and 2 credit point in III semester with 50 percent of the syllabus.

PG BOS Meeting Reference Number:

Course Code:

Course Name: International Economics

Brief Course Description:

This course is divided into two sections. Section –I basically deal with Foreign Exchange Market, various concepts related to exchange rate and the section –II basically deals with various trade theories. Here we cover extensions and modifications made in Traditional trade theories namely Ricardian Theory and Heckscher Ohlin Theory. Along with these we will examine and analyse various post – Heckscher Ohlin trade theories. In this course thorough discussion of relationship between Trade and Growth as well as Trade and Development will be made. The last topic that is covered in this course is trade policies in developing nations.

Prerequisite(s) and / or Notes

- (1) Under Graduate Level Knowledge of International economics
- (2) Basic mathematical economics, macroeconomics and microeconomics
- (3) Previous years questions will not be given importance; students will be evaluated on the basis of topics analysed / discussed or covered in the classes of each year.

Section-I

Full Marks: 25

Course Objectives:

Knowledge gained:

- Concepts related to foreign exchange market and exchange rate determination
- Concepts related to Purchasing power Parity
- Concept of monetary approach about balance of payment , exchange rate determination
- Concepts related to European Currency Market
- Concept of Gold Standard
- Concept related to GATT and WTO

Skill gained:

- Calculation of real exchange rate, cross exchange rate, nominal effective exchange rate
- Calculation of forward premium, forward discount
- Calculation of covered interest arbitrage parity margin
- Computation of exchange rate between two nations following monetary approach
- Can evaluate the journey from Gold standard to today's flexible exchange rate

Competency developed:

- Competency developed about international currency market and their role for affecting domestic economy
- Competency about the relationship among various macro economic variables say, interest rate, inflation and exchange rate etc, also developed
- Can able to evaluate the role of World Trade Organization in international trade related policies and problems

Course Syllabus:

Module 1. Foreign Exchange Markets

Introduction, Exchange Rate Definitions, Characteristics and Participants of the Foreign exchange Market, Arbitrage in the Foreign Exchange Market, the Spot and Forward Exchange Rates, Nominal, Real and Effective Exchange Rates, A Simple Model of the determination of the Spot exchange rates, Alternative Exchange Rate regimes, Currency Swaps, Forward discounts or Premiums, Uncovered Interest Arbitrage, Covered Interest Arbitrage Parity, Covered Interest Arbitrage Margin. Purchasing Power parity Theory and the Law of One Price, Absolute and Relative PPP,

Module 2. Monetary Approach to the Balance of Payments

Introduction, A Simple Monetary Model, The Monetarist concept of a Balance of Payments Disequilibrium, Implications of the Monetary Approach, Empirical evidence on the Monetary Approach.

Module 3. International Monetary System- Past, Present and Future

The Background to the European Monetary System, Euro Currency Market, Economic and Monetary Union, , The Gold Standard Period (1880-1914), the Bretton Woods System, Journey from GATT to WTO

Suggested Readings:

Salvatore Dominick, International Economics, (8th Edition), 2004, John Wiley & Sons
 P. Krugman and M. Obstfeld (1997): *International Economics*. Addison-Wesley
 Keith Pilbeam, International Finance, (3rd Edition), 2006, Palgrave Macmillan
 Maurice D. Levi, International Finance, (5th Edition), 2009, Routledge
 Bhagwati, Jagdish N., and T. N. Srinivasan. *Trade policy and development*. Vol. 90. World Bank, 1978.

Section-II

Full Marks: 25

Course Objectives:

Knowledge acquired:

- (1) understand the validity of traditional trade theories after extension along with relaxation of standard assumptions,
- (2) recognize the trade explaining power of new trade theories,
- (3) comprehend the relationship between trade and growth as well as between trade and development,
- (4) know about Commercial policy or trade policy of developing countries

Skills gained:

- (1) Analyze various trade models both mathematically and graphically
- (2) Explain the relationship between trade and growth
- (3) Explain the relationship between trade and development
- (4) Examine advantages and disadvantages of trade policies

Competency Developed:

- Use of mathematical and Statistical methods in trade models.

Course Syllabus:

Module 1: Traditional Trade Theory with extensions

Ricardian Theory of Comparative Advantage; Heckscher-Ohlin (H-O) theory: price and physical definitions, factor intensity reversal (FIR), FIR and the cone of diversification (COD), FIR and Factor Price Equalization (FPE) theorem. The Leontief Paradox, Extensions of Ricardian Theory: The Dornbusch-Fischer-Samuelson model on Ricardian continuum. Applications of Heckscher-Ohlin-Samuelson (H-O-S) Trade Models for Developing Countries: Jones (1965) general equilibrium trade model: Stolper-Samuelson and Rybczynski Theorems in terms of Jones (1965) model. Sector-specific trade model: Jones (1971) general equilibrium trade model. The price magnification effect. Role of non-traded goods and The Dutch Disease. Trade and urban unemployment: Harris-Todaro (1970) and Corden-Findlay (1975) models and the basic propositions of trade theory.

Module 2: New Trade Theories

Human Skills Theory, Product Life Cycle Theory, Imitation Lag Hypothesis, Linder Theory, Krugman Model, Imperfect Competition Model, Inter and Intra-Industry Trade, More Recent Tests of Factor Endowments Approach, Factor Endowments Approach and Income Inequality.

Module 3: Economic Integration

Customs Union: Trade Creating and Trade Diverting Effects; Theory of Second Best and Other Static Welfare; Effects of Customs Union. History of Attempts at Economic Integration: EU, NAFTA, ASEAN, SAARC. Attempts at Economic Integration among Developing Countries.

Module 4: Trade and Growth and Trade and Development

A. Trade and Growth: Trade Effects of Economic Growth; Sources of Growth and the Production Possibility Frontier; Growth, Trade and Welfare: Small and Large Country Cases; Growth and the Terms of Trade:

B. Trade and Development; The Importance of Trade to Development; A Developing Country Perspective.

C. Trade and Environment: Emerging Situations in Developed and Developing Countries.

Suggested Readings:

Bhagwati, Jagdish N., and T. N. Srinivasan. *Trade policy and development*. Vol. 90. World Bank, 1978.

Bhagwati, Jagdish N., Arvind Panagariya, and T N Srinivasan. *Lectures on international trade*. MIT press, 1998.

Bliss, Christopher. "Trade and development." *Handbook of development economics* 2 (1989): 1187-1240. .

Darrat, Ali F. "Trade and development: The Asian experience." *Cato J.* 6 (1986): 695.

Dixit, Avinash, and Victor Norman. "Theory of international trade." *Cambridge Books* (1985).

Eaton, Jonathan, and Samuel Kortum. "Technology, trade, and growth: A unified framework." *European economic review* 45.4-6 (2001): 742-755.

Feenstra, Robert C. *Advanced international trade: theory and evidence*. Princeton university press, 2015. [This book is essential for empirical issues on Trade and also for Political Economy of Trade]

Findlay, Ronald, and David Domeij. *Factor proportions, trade, and growth*. Vol. 5. MIT press, 1995.

Frankel, Jeffrey A., David H. Romer, and Teresa Cyrus. "Trade and growth in East Asian countries: cause and effect?" (1996).

Frankel, Jeffrey A., and David H. Romer. "Trade and growth: An empirical investigation." (1996).

Frankel, Jeffrey A., and David H. Romer. "Does trade cause growth?." *American economic review* 89.3 (1999): 379-399.

Gandolfo, Giancarlo, and Federico Trionfetti. *International trade theory and policy*. Berlin, Heidelberg, New York: Springer, 2014.

Grossman, Gene M., ed. *Imperfect competition and international trade*. mit Press, 1992.

Helpman, Elhanan, and Paul Krugman. *Trade policy and market structure*. MIT press, 1989.

Jones, Ronald W., and J. Peter Neary. "The positive theory of international trade." *Handbook of international economics* 1 (1984): 1-62.

Kim, Dong-Hyeon, and Shu-Chin Lin. "Trade and growth at different stages of economic development." *Journal of Development Studies* 45.8 (2009): 1211-1224.

Krueger, Anne O. "Asian trade and growth lessons." *The American Economic Review* 80.2 (1990): 108-112.

Krugman, Paul. "Increasing returns, imperfect competition and the positive theory of international trade." *Handbook of international economics* 3 (1995): 1243-1277.

Krugman, Paul R. *International trade: Theory and policy*. Pearson, 2018.

Meier, Gerald M. "International trade and development." *International trade and development*. (1964).

Salvatore, Dominick. *International economics*. John Wiley & Sons, 2016.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical:

Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

This is a modified syllabus from course 306B and 406B

New topics introduced in this course are: the choice of pollution control instruments under uncertainty, and pollution policy with imperfect information which are added in module 2.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Environmental Economics

Brief Course Description:

This course deals with topics in environmental economics. In particular, the course will cover – market failure in environmental problems– public goods characteristics of the environment, externalities, non-convexities and asymmetric information problems (moral hazard and adverse selection); setting pollution targets; targeting externalities –instruments for achieving pollution abatement targets; international environmental problems and related topics.

Course Objectives:

The objective of the course is to develop economic perspectives on modern environmental issues and to apply economic theory for their management.

Course Outcomes:

After completion of the course, the students will be able to learn that economic objectives are not necessarily in conflict with environmental goals, and that markets mechanisms can be useful to improve environmental quality. At the end of the course, the student will be able to place environmental problems in an economic framework.

Course Syllabus:

Module1: Theory of Externalities:

Environmental Pollution as a Negative externality– Types of Pollutants and Sources of Pollution– Pollution Flows and Pollution Stocks–Point and Non-Point-Source– Local, Regional and Global Pollution– Damage and Abatement Cost Functions and the Efficient Level of Pollution Flows– Efficient level of Pollution Stocks – Non-convexity in Damage and Abatement Cost Functions – Setting Pollution Targets.

Module2: Environmental Policy & externality Control

Targeting Externalities – Instruments for Achieving Pollution Abatement Targets – Cost Efficiency and Cost-effective Pollution Abatement Instruments– Market-based Instruments (MBI) – Emissions Tax, Emission Abatement Subsidy, Deposit Refund System and Marketable Permit Instruments– Static and Dynamic Efficiency Property of Emissions Tax – Command and Control Instruments (CAC) – Emission Standards and Admissible Production Technologies – Monitoring and Enforcement – Comparison between MBI and CAC Methods; Choice of Pollution Control

Instruments in the Presence of Non-Convexities and Uncertainty (the Weitzman Model) – Pollution Policy with Imperfect Information– Taxes vs. Quotas under Imperfect Monitoring.

Module3. International Environmental Problems

Trans-boundary Environmental Problems – Acid Rain Pollution and Stratospheric Ozone Depletion– Economics of Greenhouse Gas (GHG) Emissions and Climate Change– Policy Response to Global Climate Change – Carbon Tax, Tradable Emission Quotas, Clean Development Mechanism (CDM) and Renewable Energy – The Benefits and Costs of International Cooperation on Global Climate Change– International Treaties– The Earth Summit and Kyoto Protocol– The Flexibility-Stringency Trade-off– Game Theory Analysis.

Suggested Readings:

Fisher, A.C. 1981, Resource and Environmental Economics, Cambridge University Press.

Jonathan Gruber, 2013, Public Finance and Public Policy, Worth Publishers, New York.

Kadekodi, 2004, Environmental Economics in Practice: Case Studies from India, OUP.

Katar Singh and Anil Shishodia, 2007, Environmental Economics: Theory and Applications, Sage India.

Nick Hanley, Jason F. Shogren and Ben White, 1997, Environmental Economics: In Theory and Practice, Macmillan Press Limited, New Delhi.

Robert N. Stavins (ed.), 2005, Economics of the Environment: Selected Readings, W.W. Norton, 5th edition.

Roger Perman, Yue Ma, James McGilvray and Michael Common, 2003, Natural Resource and Environmental Economics (3rd Ed.), Pearson Education Ltd., Harlow.

Thomas and Callan, 2007, Environmental Economics, Thomas South-Western.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

Previously econometrics course was taught in both III and IV semesters. Now 50 percent of the syllabus taken from semester III and the total portion of semester IV to create the new course under DSE named Econometrics-I.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Econometrics-I

Full Marks: 50

Brief Course Description: This course basically deals with Time series Econometrics

Prerequisite(s) and / or Notes

- (1) Under Graduate level Knowledge of Statistics
- (2) Knowledge of Basic Econometrics

Previous years questions will not be given importance, students will be evaluated on the basis of topics analysed / discussed or covered in the classes of each year.

Course Objectives:

Knowledge gained

- Knowledge about spurious regression
- Data generating process, Unit root test, Co integration
- Vector Error correction Model, Granger Causality test
- Knowledge about forecasting (ARIMA, GARCH Model)
- Knowledge about Panel data
- Fixed effect Model, Random Effect Model

Skill gained:

- Introduction of STATA/SPSS software
- Hands on experience regarding import of excel file(data) to the software
- Performing Augmented Dickey Fuller Unit root test
- Performing Engel –Granger test of Cointegration
- Johansen test of Cointegration
- Pair wise Granger Causality test
- Modelling ARIMA forecasting
- Modelling Vector Auto regression forecasting

Competency Developed:

- How a to perform ADF Unit Root test, Engle-Granger Cointegration test
- ARIMA forecasting of economic variables
- Empirical approach to Panel data regression model using software

Course Syllabus:

Module 1 Time Series Econometrics

Econometric Modelling, Dynamic Econometric Models, Autoregressive and Distributed Lag Models, Koyck's Transformation, Nerlove's Partial Adjustment Model, Cagan's adaptive expectation model, Spurious Regressions, Stochastic Processes, Dickey-Fuller Unit root Test, Co-integration, Error Correction Model, Causality in Economics, the Granger Causality Test, ARDL Model

Module 2 Forecasting Techniques

The Box-Jenkins Methodology, Vector Auto Regression Model (VAR), Impulse Responses and Variance Decompositions, Autoregressive Conditional Heteroscedasticity (ARCH) models, Generalised ARCH (GARCH) Models

Module 3 Panel Data Regression Models

Why we need to address Panel Data separately?; Pooled OLS, Constant Coefficient Model, The Fixed Effects Least Squares Dummy Variable (LSDV) Model, The Fixed Effect within Group Estimator, the Random Effects Model (REM), Concept of Dynamic Panel Regression Model

Suggested Readings:

- Gujarati, D.N.(2003) Basic Econometrics, 4th Edition, Tata-MaGraw-Hill,
 Enders, W. (2008), Applied Econometric Time Series (2nd Edition), John Wiley & Sons Ltd.
 Pindyck, R.S and Rubinfeld, D.L. (1998), Econometric Models and Econometric Forecasts, (4th Edition), McGraw-Hill International Editions
 Maddala, G.S. (2002), Introduction to Econometrics, (3rd Edition), John Wiley & Sons Ltd
 Baltagi, B.H. (2005), Econometric Analysis of Panel Data, John Wiley, Chichester, U.K.
 James H. Stock and Watson M., Introduction to Econometrics, 4th Edition, Pearson

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

This is a modified syllabus from course 306B and 406B

New Module introduced in this course is on Productivity and Efficiency measurement – Data Envelopment Analysis (DEA) and Stochastic Frontier Regression Analysis (SFRA)

PG BOS Meeting Reference Number:

Course Code:

Course Name: ECONOMETRICS II

Brief Course Description:

Large amount of data is collected on many different variables across disciplines in order to understand relationship between variables. The multivariate analysis of data deals with examining interrelationship between three or more equally important variables or explaining of variation in, usually one (or more than one) dependent variable(s) on the basis of two or more independent (explaining) variables. With the availability of inexpensive, fast and efficient computing resources and statistical packages there has been a growth in the application of these techniques. This course introduces the student to multivariate data analysis tools. Also, discrete dependent variable models and productivity and efficiency analysis are included in the course for application in micro-econometric models

Prior knowledge of basic statistics and regression analysis is required for this course

Revision of syllabus may take place before the beginning of semester and also modification may take place during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course objective:

To acquaint students with some advanced techniques of econometric methods and their applications in micro-econometric analysis. To explain what multivariate analysis is and when it is appropriate to be applied in an economic problem. To acquaint students with parametric and non-parametric techniques of measurement of productivity and efficiency and their applications in applied production analysis.

Course Learning Outcomes:

On completion of the course students will be able to apply practical application of the economic problems. On completion of the course students will be able to do empirical computation of different efficiency measures such as technical, allocative, scale and price efficiency measures as well as their economic interpretation.

Course Content:

Module 1: Multivariate analysis and techniques

Content

Interdependence methods - factor analysis, principal component analysis and cluster analysis

Multivariate Analysis of Variance – one-way and two-way

Dependence methods - Multiple regression models, canonical correlation, discriminant analysis

Suggested Readings:

Hair (Jr.), J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2019). *Multivariate Data Analysis*, Cengage

Härdle, W.K., & Simar, L. (2019). *Applied Multivariate Statistical Analysis*, Springer

Rencher, A. C., & Christensen W. F. (2012). *Methods of Multivariate Analysis*, John Wiley & Sons

Sharma, S. (1996). *Applied Multivariate Techniques*, John Wiley & Sons

Module2: Discrete dependent variable models

Polychotomous choice models; Logit and Probit models; Unordered response models; Ordered response models; Sequential response models; Limited dependent variables models;

Censored (Tobit) regression models; Truncated regression models; Mixture of truncated and censored regression models; Switching regressions and sample selectivity models; Count data models

Application of the method using statistical packages and interpretation of the results will be part of the course

Suggested Readings:

Green, W. (2018). *Econometric Analysis*, Pearson

Hill, C.R., Griffiths, W.E., & Lim, G.C. (2011). *Principles of Econometrics* (4th ed.), John Wiley & Sons

David, W.H., Stanley, L., & Sturdivant, R.X. (2013). *Applied Logistic Regression*, John Wiley & Sons

Kleinbaum, D.G., Klein, M., & Pryor, E.R. (2010). *Logistic Regression: A Self-Learning Text*, Springer

Module3: Productivity and Efficiency Measurement

Efficiency and productivity – a distinction; Input and output-oriented efficiency; DEA Models of technology; DEA models; CCR (overall technical efficiency) and BCC (pure technical efficiency) models, Stochastic Frontier Regression Analysis (SFRA)- Cobb-Douglas, CES, and Translog Production Functions; Applications of Cross Sectional and Panel data regression methods.

Module 4: Application of Statistical Packages

This module is activity based with the use of spreadsheet programmes and statistical packages.

Suggested Reading:

Coelli, T.J., Rao, D.S.P., O'Donnell, C.J. & Battese, G.E. (1998). An introduction to efficiency and productivity analysis. USA: Springer, Second Edition.

Cooper, W.W., Seiford, L.M, and Tone, K. (2007). Data Envelopment Analysis: A Comprehensive Text with Uses, Example Applications, References and DEA-Solver Software. (Norwell, Mass: Kluwer Academic Publishers.)

Farrell, M.J. (1957). The Measurement of Productive Efficiency, Journal of the Royal Statistical Society Series A. General 120(3).

Ramanathan, R (2003). An Introduction to Data Envelopment analysis: A Tool for Performance Measurement, Sage Publications.

Ray, S.C. (2004). Data Envelopment Analysis: Theory and Techniques for Economics and Operations Research, Cambridge University Press, New York.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

The course is restructured combining the erstwhile four courses on demography and population studies of the third and fourth semesters. Some portions are dropped and some are added to keep the main focus on: introduction to demography and sources of demographic data; nuptiality and fertility; mortality and life table; spatial distribution and migration; population theories; and age and sex structure and population trends in India. The course has been made activity based incorporating use of statistical packages for analysis of demographic data. Knowledge of programming with SPSS using large-scale survey or micro data will enhance different life skills as well as scope for employability / entrepreneurship.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Demography

Brief Course Description:

GE 1A deals with introduction to demography and sources of demographic data; nuptiality and fertility; mortality and life table; spatial distribution and migration; population theories; and age and sex structure and population trends in India.

Prerequisite(s) and/or Note(s):

- (3) Undergraduate level understanding of statistics and/or development studies.
- (4) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable them to understand the meaning of demography and sources of demographic data.
- (2) Understanding the key components of population change, namely fertility, mortality and migration.
- (3) Get a thorough familiarity with the techniques of demographic analysis.
- (4) Understanding of the linkages between population and development in the light of various theories on population.

Skills gained:

- (1) Computation of various demographic rates and ratios.
- (2) Computation of life tables.
- (3) Modelling with migration data.
- (4) Analysing demographic data using SPSS.

Competency Developed:

- (5) Capability of conducting empirical research projects in the field of demography and population studies.

Course Syllabus:

Module 1: Introduction to Demography and sources of demographic data

Meaning of Demography – Scope of Demographic Studies — Magnitude of Population and Magnitude of Change in Population — Structure and Distribution of Population Dynamics. Various sources of demographic data - Census Enumerations — Vital Statistics — Sample Registration System (SRS) in India — Features of Indian Census Reports and SRS Bulletins - Other Survey Data –Household Surveys — District Level Household and facility Survey (DLHS), National Family Health Survey (NFHS), and the Demographic and Health Surveys (DHS). Use of statistical packages for analysis of demographic data.

Reading list:

Bhende, Asha A., and Tara Kanitkar. (1997). *Principles of Population Studies*, Himalaya Publishing House, Mumbai.

Bogue, D. J. (1971). *Principles of Demography*, John Wiley, New York.

Pathak, K. B. and F. Ram. (1992). *Techniques of Demographic Analysis*, Himalaya Publishing House, Mumbai.

CMIE: *Basic Statistics Relating to the Indian Economy*, (Various issues) Mumbai.

Desa. (2013). *World Population Prospects: The 2010 Revision, Volume II-Demographic Profiles*. UN.

Keyfitz, N. (1985). *Applied Mathematical Demography*, Wiley, New York.

Registrar General, I. (2011). *Census of India 2011: provisional population totals-India data sheet*. Office of the Registrar General Census Commissioner, India. Indian Census Bureau.

Population Reference Bureau (2021). *World Population Data Sheet*. Washington, DC: Population Reference Bureau.

Module 2: Nuptiality and Fertility

Nuptiality – Concepts and Basic Measures of Nuptiality – Estimation of Age at Marriage – Age at Marriage in India. Basic Concepts and Measures of Fertility and Reproduction – Natality, Birth Order and Parity, Sterility, Reproductive Span, Amenorrhoea, Natural Fertility, Hutterite Fertility, Actual Fertility – crude birth rate, general fertility rate, age specific fertility rate, total fertility rate, gross reproduction rate and net reproduction rate. Age Pattern of Fertility - Age Pattern of Fertility in India – Rural-Urban Differences in Age Specific Fertility Rates, Age Specific Marital Fertility Rates in India – Rural-Urban Differences in Age Specific Marital Fertility Rates. Determinants of

Natural Fertility – Davis Intermediate Variables Framework – Bongaarts’ Proximate Determinants Model.

Reading list:

Bhende, Asha A., and Tara Kanitkar. (1997). *Principles of Population Studies*, Himalaya Publishing House, Mumbai.

Bogue, D. J. (1971). *Principles of Demography*, John Wiley, New York.

Bongaarts, J. (1978). “A Framework for Analysing the Proximate Determinants of fertility”, in *Population and Development Review*.

Bongaarts, J. and Potter, G. R. (1983). *Fertility Biology and Behaviour an Analysis of The Proximate Determinants*. Academic Press, New York.

Pathak, K. B. and F. Ram. (1992). *Techniques of Demographic Analysis*, Himalaya Publishing House, Mumbai.

Shryock, H.S. and J.S.Siegel (1975). *The Methods and Materials of Demography*, Vols. I & II. Academic Press, New York

Spiegelnian, M. (1980). *Introduction to Demography*, Harvard University Press, Cambridge, Mass.

Module 3: Mortality and Life table

Basic Concepts and Measures of Mortality - Importance of Mortality Studies – Concepts and definitions - death, foetal death, early foetal mortality, spontaneous abortion, induced abortion, intermediate foetal mortality, stillbirth, infant mortality, neo-natal mortality, early neo-natal mortality, late neo-natal mortality, post-neo-natal mortality, perinatal mortality, maternal mortality; Sex - differences in mortality, factors associated with foetal losses, mortality during Infancy and childhood period and maternal mortality. Age Patterns of Mortality. Mortality Differentials, Rural-Urban Differentials; measures of mortality – crude death rate, specific death rates, infant mortality rate, maternal mortality ratio. Historic Mortality Transitions – Reasons for High Mortality in the Past – Causes of Mortality Decline in Developed and Developing Countries. Definition and a brief history of life table, types of life table – complete life table, abridged life table, methods of construction of abridged life table from ASDRs.

Reading list:

Bhende, Asha A., and Tara Kanitkar. (1997). *Principles of Population Studies*, Himalaya Publishing House, Mumbai.

Bogue, D. J. (1971). *Principles of Demography*, John Wiley, New York.

Pathak, K. B. and F. Ram. (1992). *Techniques of Demographic Analysis*, Himalaya Publishing House, Mumbai.

Shryock, H.S. and J.S.Siegel (1975). *The Methods and Materials of Demography*, Vols. I & II. Academic Press, New York

Spiegelman, M. (1980). *Introduction to Demography*, Harvard University Press, Cambridge, Mass.

Module 4: Spatial distribution and Migration

Distribution of World Population – Factors affecting the distribution of population – Rural-Urban Distribution of Population - Methods of Studying Population Distribution. Concept of migration – Migration, Migrant, Migration Interval, Place of Origin, Place of Destination, In-migration, Out-migration, Gross and Net Migration, Migration Stream, Lifetime Migration. Types of Migration – internal migration and international migration, Rural-Urban Migration. Migration Stream. Migration Differentials with respect to socio-economic and demographic factors. Migration Patterns in Developed and Developing Countries. Determinants and Consequences of Internal Migration. Migration Models – Push-Pull Hypothesis, Todaro's Model of Rural-Urban Migration, Mobility Field Theory.

Reading list:

Goldstein, S. and David F. Sly (eds) (1975). *The Measurement of Urbanization and Projection of Urban Population*, Chapter II, IUSSP, Ordina Editions, Belgium.

Mukherji, S. (1979). *Mobility Field Theory*, Varanasi, Banaras Hindu University, National, National Geographical Society.

Pathak, K. B. and F. Ram. (1992). *Techniques of Demographic Analysis*, Himalaya Publishing House, Mumbai.

United Nations: *Determinants and Consequences of Population Growth and Trends*, New York, 1973.

Module 5: Population Theories

Early thinking on population issues, Pre-Malthusian theories of population, the Mercantilist school, the beginnings of the Malthusian theory, Malthusian Theory of Population. The classical and neo-classical schools of thought, optimum population theory; Marxist and socialist views; Mathematical, Biological and Sociological theories; Social and cultural theories; the theory of

Demographic transition; Views of Medows, Enke and Simon: The Theory of Optimum Population and Optimum Rate of Population Growth. Population as 'Limits to Growth' and as 'Ultimate Source'. Population and environment - Impact of Population Growth – ideas of Paul R. Ehrlich; John P. Holdren.

Reading list:

Bhende, Asha A., and Tara Kanitkar. (1997). *Principles of Population Studies*, Himalaya Publishing House, Mumbai.

Coale, A.J. (1974). The history of the human population. In *The Human Population*. W.H. Freeman & Co, San Francisco.

Coale, A.J. and E.M. Hoover (1958). *Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects*, Princeton University Press, Princeton.

Davis, Kingsley (1951): *Population of India and Pakistan*, Princeton University Press, NJ.

Ehrlich, Paul R.; Holdren, John P. (1971). "Impact of Population Growth". *Science*. American Association for the Advancement of Science. 171 (3977): 1212–1217.

Thompson, W.S. and D.T. Lewis (1965). *Population Problems* Tata-McGraw Hill, New Delhi.

Module 6 The Age and Sex Structure and Population trends in India

Age Structure - Measures of Age Structure; Determinants of Age Structure; Demographic Dividend; Sex Structure; Measures of Sex Structure; Determinants of Sex Structure; Changing Patterns of Age-Sex Structure; Ageing; Demographic Determinants of population Ageing; Socio-Economic; Implications of Population Ageing; Topics for Demography of Ageing. Global Population Trends; World Population Growth; The Power of Doubling - How Fast Can Populations Grow? Global Variation in population Size and Growth; India's Population Scenario; Trends of Population Growth in India; Birth and Death Rates; Life expectancy at birth; Current Population Situation in the States and Union Territories: Demographic Profile.

Suggested Readings:

Agarwala, S.N. (1972). *India's Population Problem*, Tata-McGraw Hill, Bombay.

Bogue, D. J. (1971). *Principles of Demography*, John Wiley, New York.

CMIE: *Basic Statistics Relating to the Indian Economy*, (Various issues) Mumbai.

Coale, A.J. (1972). *The Growth and Structure of Human Populations*, Princeton University Press, Henry S. Shrylock, Jacob S. Siegal and Associates. (1980). *The Methods and Materials of Demography*, Vol II, US. Bureau of the Census, Washington D.C.

Keyfitz, N. (1985). *Applied Mathematical Demography*, Wiley, New York.

Registrar General, I. (2011). *Census of India 2011: provisional population totals-India data sheet*.

Office of the Registrar General Census Commissioner, India. Indian Census Bureau.

Population Reference Bureau (2021). *World Population Data Sheet*. Washington, DC: Population Reference Bureau.

Shryock, H.S. and J.S.Siegel (1975). *The Methods and Materials of Demography*, Vols. I & II. Academic Press, New York

Spiegelnian, M. (1980). *Introduction to Demography*, Harvard University Press, Cambridge, Mass.

Srinivasan, K. (1998). *Basic Demographic Techniques and Applications*, Sage, New Delhi

Srinivasan, L and A Shanff, (1998). *India Towards Population and Demographic Goals* Oxford University Press, New Delhi.

Todaro, Michael P. (1976). *Internal Migration in Developing Countries*, International Labour Organization, Geneva.

UNDP, *Human Development Report* (various years), OUP, Delhi

(Additional references if required will be provided during the course.)

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

The course is newly introduced.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Social Research Methods

Brief Course Description:

GE 1B deals with Introduction to Research Methodology; Measurement; Sampling Techniques and their Applications; Qualitative Research Methods; Research Design; and Data Processing and Analysis.

Prerequisite(s) and/or Note(s):

- (5) Undergraduate level understanding of issues related development.
- (6) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable students to understand what is research and what is not.
- (2) Understanding about the issues related to measurement.
- (3) Familiarity with the sampling techniques and their applications.
- (4) Understanding of the qualitative research methods.
- (5) Formulation of research design.

Skills gained:

- (1) Formulation of research problems.
- (2) Formulation of sampling design.
- (3) Techniques of analysis of quantitative data.
- (4) Techniques of analysis of qualitative data.

Competency Developed:

- (6) Capability of undertaking doctoral research projects in the field of social science.

Course Syllabus:

Module 1: Introduction to Research Methodology

Research Methodology and Research Methods; Development of Research Methodology; Scope of Social Research; The Research Process; Basic Elements of Scientific Methods.

Reading list:

Balug, M. (1992). *The methodology of Economics*, Cambridge University Press.

Kothari, C.R. (1988). *Research Methodology - Methods and Techniques*, Wiley Eastern Ltd., New Delhi.

Module 2: Measurement

Concept of Measurement; Levels of Measurement; Measuring a Concept; Scaling Techniques; Variations in the Scores on Measuring Instruments; The Validity of Measurement; The Reliability of Measurement

Reading list:

Kothari, C.R. (1988). *Research Methodology - Methods and Techniques*, Wiley Eastern Ltd., New Delhi.

Miller, D. C. & Salkind, N. J. (2002). Four levels of measurement and the statistics appropriate to each level. In *Handbook of research design & social measurement* (pp. 383-384). Thousand Oaks, SAGE Publications, Inc.

Moser, C.A. and Kalton, G. (1986). *Survey Methods in Social Investigation* (Second Edition), Gower Publishing Company, Hants, England.

Module 3: Sampling Techniques and their Applications

Some Basic Concepts in Sampling Theory; Determination of Sample Size; Probability and Non-Probability sampling; Some Standard Techniques of Probability and Non-probability Sampling.

Reading list:

Backstorm, Charles H. and Hursh-Cesar, Gerald. (1981). *Survey Research* (2nd Edition), John Wiley and Sons, New York, USA.

Moser, C.A. and Kalton, G. (1986). *Survey Methods in Social Investigation* (Second Edition), Gower Publishing Company, Hants, England.

Sandhu, A.N. and Singh, A. (1983). *Research Methodology in Social Sciences*, Himalaya Publishing House, Bombay.

Weller, S.C. & Romney, A.K. (1988). *Systematic Data Collection*, Thousand Oaks, CA, Sage.

Young, P.V. & Schmid C.F. (1973). *Scientific social survey, & research*. New Delhi, Prentice – Hall of India Private Limited.

Module 4: Qualitative Research Methods

An introduction to qualitative research; Difference Between Qualitative and Quantitative Methods; Various Qualitative Data Collection Techniques – Focus Group Discussion – Participant Observation – Key Informants Interview – Participatory Rapid Appraisal (PRA) – Focused Ethnographic Studies (FES) – Situation Analysis – Policy Analysis – Case Studies – Free Listing and Pile Sorting – Delphi Technique – Pocket Charts – Projective Technique – Content Analysis – Meta Analysis; Sampling Issues in Qualitative Research; Analysis of Qualitative Data.

Reading list:

- Bernard, H. R. (1988). *Research Methods in Cultural Anthropology*, Sage Publication.
- Bousfield, W.A. & Barclay, W.D. (1950). *The Relationship Between Order and Frequency of Occurrence of Restricted Associative Responses*. Journal of Experimental Psychology.
- Maanen John Vaan. (1991). *Qualitative Research Methods Series*, Sage Publications. The Series has
(Series Editor) brought out 19 volumes on different aspects of QRM.
- Manson J. (1996). *Qualitative researching*, London, Sage.
- Re Borgatti, S. (1998). *Elicitation Techniques for Cultural Domain Analysis*. In Ethnographer's Toolkit, edited by J. Schensul. Newbury Park: Sage.
- Romney, A.K. & DAndrade, R.G. (1964). *Cognitive Aspects of English Kin Terms*. American Anthropologist 66(3, Part 2):146-170.
- Rossmann G.B., Rallis FR. (1998). *Learning in the field: an introduction to qualitative research*: thousand oaks, cn: sage.
- Rudner Lawrence, Gene Glass, David Evarrtt, and Patrick Emery. (2002). *Meta-Stat - A user's guide to the meta-analysis of research studies*, by On-line manual.
- Theis J. and Grady M. (1991). *Participatory Rapid Appraisal for Community Development*, IIED, Save the Children Federation.
- Ulin R.P. and Robinson TE; Tolley EE; Mcneill TE. (2002). *Qualitative Methods- A field guide for applied research in sexual & reproductive health*, Family Health International, 2002.
- Weller, S.C. & Romney, A.K. (1988). *Systematic Data Collection*, Thousand Oaks, CA: Sage.

Module 5: Research Design

The Research Design; Correlational Design; Experimental Design; Internal and External Validity; Threats to Validity; Components of Research Design; Features of Correlational and Experimental Design; Observational Study

Reading list:

- Baiely Kenneth D. (1978). *Methods of social research*, the free press, New York.
- Bansell, R.B. (1986). *A Practical Guide to Conducting Empirical Research*, Harper & Row Publishers, U.S.A.
- David Dooley. (1984). *Social Research Methods*, Prentice – Hall Inc. New Jersey.
- Godde, W.J., & Hatt, P.K. (1981). *Methods in Social Research*, McGraw Hill New
- Hartman, John J. and Hedblom, Jack H. (1979). *Methods for the Social Sciences: A Handbook for Students and Non-specialists*, Greenwood Press, Westport, USA.
- Kothari, C.R. (1988). *Research Methodology - Methods and Techniques*, Wiley Eastern Ltd., New Delhi.
- Reddy T.S & Bappa Rao P. (1995). *Research methodology and statistical measures*. New Delhi, Reliance Publishing House.

Module 6: Data Processing and Analysis

Data entry using Census and Survey Processing System (CSPRO); Data Processing; Editing; Coding; Data Validation and Updating; Analysis of Data; Various techniques of analysis of data; Measures of quality assurance in large-scale sample survey; Use of SPSS in large-scale survey data analysis.

Readings list:

- Backstorm, Charles H. and Hursh-Cesar, Gerald. (1981). *Survey Research* (2nd Edition), John Wiley and Sons, New York, USA.
- <https://www.census.gov/data/software/cspro.html>.
- IBM (2021). IBM SPSS Statistics 28 Brief Guide. New York, IBM SPSS. (Available at: https://www.ibm.com/docs/en/SSLVMB_28.0.0/pdf/IBM_SPSS_Statistics_Brief_Guide.pdf)
- McIntosh CA and Finkle JL. (1995). *The Cairo Conference on Population and Development: A New Paradigm? Population and Development Review*, 1995, 21 (2): 223-60.
- Moser, C.A. and Kalton, G. (1986). *Survey Methods in Social Investigation* (Second Edition), Gower Publishing Company, Hants, England.

Sandhu, A.N. and Singh, A. (1983). *Research Methodology in Social Sciences*, Himalaya Publishing House, Bombay.

Young, P.V. & Schmid C.F. (1973). *Scientific social survey, & research*. New Delhi, Prentice – Hall of India Private Limited.

(Additional references if required will be provided during the course.)

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SEMESTER- IV

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

The course is restructured combining the erstwhile two courses on development economics of the third and fourth semesters. Some portions are dropped and some are added to keep the main focus on: the evolution of measures of development; economics of education; health, health care and economic development; economics of health and health care; economic inequality and its measurement; and empirical analysis of income inequality. The course has been made activity based incorporating use of statistical packages to analyse data on health and health care as well as to perform empirical analyses of economic inequality. Knowledge of programming with SPSS using large-scale survey or micro data will enhance different life skills as well as scope for employability / entrepreneurship.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Development Economics

Brief Course Description:

Core 08 deals with topics in the evolution of measures of development; economics of education; health, health care and economic development; economics of health and health care; economic inequality and its measurement; and empirical analysis of income inequality.

Prerequisite(s) and/or Note(s):

- (7) Undergraduate level understanding of development economics.
- (8) Note(s): Syllabus changes yearly and may be modified during the term itself, depending on the circumstances. However, students will be evaluated only on the basis of topics covered in the course.

Course Objectives:

Knowledge acquired:

- (1) It will enable them to understand the evolution of the measures of development.
- (2) Understanding about how the question of the ability to be knowledgeable becomes prominent when we inquire about the prosperity of a nation or a region of the world.
- (3) Understanding the concepts of health and health care and their linkage with economic development and vice-versa.
- (4) Understanding of distribution of income and wealth and various income inequality measures.

Skills gained:

- (1) Indexing with various measures of development in different dimensions.
- (2) Estimating demand and cost functions of education.
- (3) Conducting empirical studies on health and health care.
- (4) Analysing micro data on income inequality.

Competency Developed:

- (7) Capability of conducting empirical research projects in the field of development economics.

Course Syllabus:

Module 1: Evolution of Measures of Development

Meaning and Evolution of the Concept of Development – Physical Quality of Life Index - Human Development Index-Gender Development Index-Gender Empowerment Measures; Measuring Inequality and Poverty: Income Poverty Index and Human Poverty Index; Alternative Approaches to Standard of Living – Notions of Commodities, Capabilities, Functioning and Entitlements; Concept of Sustainable Development.

Reading list

- Chiappero-Martinetti, Enrica. and Siddiquir Osmani. and Mozaffar Qizilbash. (eds.) (2020). Handbook of the Capability Approach, Cambridge, Cambridge University Press.
- Fukuda-Parr, S. and A. K. Shiva Kumar (eds.) (2003). Readings in Human Development, New Delhi, Oxford University Press.
- Sen, A. K. (1985). Commodities and Capabilities, Amsterdam, North-Holland.

Module 2: Economics of Education

Education and Human Development; Components of Human Capital. The Demand for Education: Private vs. Social Demand; The Cost of Education: Private Costs and Social Costs; Education as a Merit-Good: Direct and Indirect Benefits; The State and Social Expenditure on Education; Empirical analyses with demand and cost functions of education.

Reading list

- Becker, G.S. (1974). Human Capital, New York, NBER.
- Bowmen, Mary Jean. (1969). "Economics of Education," Review of Educational Research, 39 (5): 641-670.
- Doyle, Corbette. and James Cicarelli. (1980). "The Demand for Higher Education: A Disaggregate Approach," The American Economist, 24 (2): 53-55.
- Frenzel, K. A. and D. J. McCready. (1982). Economics of Education: The Development of a Sub-Discipline," The American Economist, 26 (1): 35-42.

Module 3: Health, Health Care and Economic Development

Definition of Health; Significance of Good Health in Economic Development; Morbidity, Burden of Disease, International Classification of Diseases; Different measures of Health; Theory of the Epidemiology of Population Change; Health Care; Community Health – Various Measures and Needs Assessment Process; The State of Health and Health Care from Indian perspective.

Reading list

Folland, Sherman, Allen Goodman, and Miron Stano. (2001). *The Economics of Health and Health Care*. New York, Macmillan.

Kadri, A.M. (ed.) (2019). *IAPSM's Text Book of Community Medicine*, New Delhi, Jaypee Brothers Medical Publishers Pvt. Limited.

MOHFW, Ministry of Health and Family Welfare (Various Years). *Various Reports and Publications*. New Delhi: Government of India.

Murray, C. J. L. and A. D. Lopez (ed.). (1996). *The Global Burden of Disease: A Comprehensive Assessment of Mortality and disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020*, Cambridge, MA, Harvard University Press.

Murray, C. J. L. and L. C. Chen. (1992). Understanding morbidity Change. *Population and Development Review*, 18 (3): 481-501.

Salomon, A. J. and C. J. L. Murray. (2002). The Epidemiologic Transition Revisited: Compositional Models for Causes of Death by Age and Sex, *Population and Development Review* 28 (2): 205-228.

Module 4: Economics of Health and Health Care

The State and Scope of Health Economics; An Overview of the Normative Economics of the Health Sector; Economics and Ethics in Health Care; Contribution of Health Services to an Economy; Demand and supply sides Economics of Health Care; Utilisation of Health Care; Cost of Health Care; Health Insurance. Application of statistical packages for analysis of data on health and health care.

Reading list

Cooper, M. H. and A. J. Culyer (ed.) (1971). *Health Economics*. Middlesex, Penguin Books.

Culyer, Anthony J. (2001). "Economics and Ethics in Health Care," *Journal of Medical Ethics*, 27 (4): 217-222.

Culyer, Anthony J. and Joseph P. Newhouse (ed.) (2000). *Handbook of Health Economics* (Volume 1 & 2), North-Holland, Elsevier Science.

International Institute for Population Sciences (IIPS) and ICF. (2017). *National Family Health Survey (NFHS-4), 2015-16: India*. Mumbai, IIPS.

Nussbaum, M. C., Sen, A. (1993). *The Quality of life*, Oxford, Clarendon Press.

Ray, Debraj. (1999). *Development Economics*, New Delhi, Oxford India Paperbacks.

UNDP. (Various Years). *Human Development Reports and Various Publications*.
<https://www.undp.org/>.

World Health Organisation. (Various Years). *Various Publications and Reports*.
<https://www.who.int>.

Module 5: Economic Inequality and its measurement

The notion of inequality; The Intrinsic Bane and the Instrumental Harms of Inequality; Distributive Justice and Welfare Economics; Measurement of economic inequality – measures under the Lorenz curve framework – area-based and length-based measures, right-wing, centrist, and left-wing measures; Angle-based inequality measures for segment-wise analysis of inequality; Properties of measures of inequality.

Reading list

Anand, S. (1983). *Inequality and Poverty in Malaysia: Measurement and Decomposition*. New York, Oxford University Press.

Fields, G.S. (1980). *Poverty, Inequality and Development*, Cambridge, CUP.

Sen, A. (1973). *On Economic Inequality*, Delhi, Oxford University Press.

Subramanian, S. (2015). More tricks with the Lorenz curve, *Economics Bulletin*, 35 (1), 580-589.

Subramanian, S. (2019). *Inequality and Poverty: A Short Critical Introduction*, Singapore, Springer.

Module 6: Empirical analysis of income inequality

Analysing inequality and Social Welfare Function; SWF based inequality measure; Generalised inequality measures - Generalised entropy measure, Extended Gini coefficient; Axioms and properties of a desirable measure of economic inequality; Modelling inequality – functional form of distribution, lognormal distribution, Pareto distribution; Income inequality database - Luxembourg Income Study Database (LIS), PovcalNet, World Development Indicators, World Income Inequality Database; Application of statistical packages for analysis of income inequality data.

Reading list

Arnold, B.C. (2012). On the Amato inequality index, *Statistics and Probability Letters*, 82 (8), 1504-1506.

Atkinson, A.B. (1970). On the measurement of inequality, *Journal of Economic Theory*, 2(3), 244-263.

Cowell, Frank. (2011). *Measuring Inequality*, London, Oxford University Press.

Kakwani, N. (1980). *Income Inequality and Poverty: Methods of Estimation and Policy Applications*. New York, Oxford University Press.

Kuklys, W. (2005). *Amartya Sen's Capability Approach (Theoretical Insights and Empirical Applications)*, Berlin, Springer.

Luxembourg Income Study Database – LIS (2021). <https://www.lisdatacenter.org/>.

Majumder, A. (2015). An alternative measure of economic inequality under the Lorenz curve framework in analogue to the index of refraction of geometrical optics, *Economics Bulletin*, 35 (2), 1076-1086.

Milanovic, B. (1994). The Gini-type Functions: An Alternative Derivation, *Bulletin of Economic Research*, 46(1): 81-90.

Milanovic, B. (1997). A Simple Way to Calculate the Gini Coefficient, and Some Implications, *Economics Letters*, 56(1): 45-49.

UNU-WIDER. (Various Years). *World Income Inequality Database (WIID)* (Various versions), Luxembourg, UNU-WIDER.

World Bank. (2021). <http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx>.

World Bank. (Various Years). *World Development Indicators*, Washington, D.C., The World Bank

Yitzhaki, S., & Schechtman, E. (2005). The properties of the extended Gini measures of variability and inequality, *METRON - International Journal of Statistics*, 43 (3), 401-433.

(Additional references if required will be provided during the course.)

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

PG BOS Meeting Reference Number:

Course Code:

Course Name: DISSERTATION

Brief Course Description:

The dissertation is independent research on a topic agreed by the student and supervisor. It is preferable to select a topic related with the specialization of the student. It must show evidence of wide reading and understanding. A dissertation must include a thematic literature review and a well-defined analytical framework for the study. Primary and/or secondary data may be analysed applying appropriate method of analysis. The final writeup should be a well-structured research output.

Course Objective:

The objective is to develop the analytical ability of the student and equip them sufficiently so that they are able to independently make analysis and prepare a well -structured report. The course will also develop a good understanding of the ethical issues in data collection and evaluation.

Course Learning outcomes:

Upon successful completion of the course the student will have the knowledge and skill to independently identify a research topic relevant to the society. The student will be able to contextualise the research issue with relevant theory and concepts and apply appropriate method of analysis to draw conclusions.

Structure of the dissertation:

1. Cover page should mention the title of the dissertation, name of the student and supervisor, degree for which it is submitted and date of submission.
2. Second page should include the plagiarism certificate for the dissertation.
3. A declaration by the student that the writeup has not been submitted elsewhere for any award of degree or diploma.
3. The next page(s) should include table of content for each chapter and sections along with their page number.
4. Next page should have table of appendices, tables, graphs, figures with page numbers.
5. An executive summary of the dissertation not exceeding 1000 words.
6. Followed by acknowledgments
7. Chapters
8. Reference list

9. Appendices

Guideline for submission:

Total length of the dissertation should not exceed 40000 (forty thousand only) words and three copies hard bounded must be submitted for evaluation.

Size of the paper should be A4.

Font: Calibri or Times New Roman

Font size 12

Line spacing: 1.25

Referencing style: APA (American Psychological Association) 7th edition.

Avoid footnote and instead use endnote for chapters.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical:

Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

This is an extensively modified course from course 305A and 405A

PG BOS Meeting Reference Number:

Course Code:

Course Name: RESOURCE ECONOMICS

Brief Course Description:

The course on Resource Economics is offered to students of semester four as discipline specific elective and is a two-credit course. This course on natural resource economics uses economic theory and empirical evidence to address the problem of natural resource management. The course has three modules on resource allocation theory, conservation and development and conservation and valuation of resources.

Course objective:

To adequately train the young researcher to enable them to recognise and interpret resource problems both at local and global level. To prepare the students to apply economic tools to evaluate the allocation and utilization of natural resources; and also train them to develop a good understanding of societal choices that directly or indirectly affect resource use decisions.

Course Learning Outcomes:

On successful completion of the course a student will develop theoretical understanding of inter-temporal allocation of resource use and how resource conservation impact well-being of communities. The course will also develop an understanding on the role of institutions and property rights in resource management. They will also develop an understanding of the linkages between natural resource and the economy and how valuation of ecosystem may help to make informed development policy decisions.

Course Content:

Module I: Resource Allocation Theory

Biophysical limits to growth – neo-classical and ecological perspective.

Hotelling rule, backstop technology

Natural resource management and governance – the role of institutions

Economics of renewable resources – forestry, fisheries and water economics (any two)

Biodiversity, Ecosystem Services and Sustainability

Suggested Readings:

Baland, J.M. & Platteau, J. P. (2007). Halting Degradation of Natural Resources: Is there a role for rural communities? FAO & Oxford University Press

Barbier E.B. (2005). Natural resources and economic development, Cambridge.

Dasgupta, P. (2001). Human well-being and the natural environment, Oxford University Press
 Kooten G.C.V. & Bulte, E.H., (2000). The economics of nature: Managing biological assets, Blackwell Publishers

Hanley, N., Shogren, J. & White, B. (2007). Environmental economics-In theory and practice, Palgrave Macmillan

Module2: Conservation and development

Resource conservation and development trade-off – benefit-cost of conservation

Poverty, inequality and environmental degradation – Neo Malthusian vs New Economics.

Resource abundance and poverty - the problem of resource- curse

Green GDP; System of Environmental Economic Accounting (SEESA) and resource valuation; resource conservation & development trade-off;

Cost-Benefit analysis, environmental impact analysis, Environment Kuznets hypothesis; resource curse

Suggested Readings:

Edward B. Barbier 2005, *Natural Resources and Economic Development*, Cambridge University Press

Feng Liu 2001, *Environmental Justice Analysis: Theories, Methods and Practices*, Lewis Publishers.

Grafton, R.Q., Adamowicz, W., Dupont, D., Nelson, H., Hill R.J. & Renzetti S. (2004). The economics of the environment and natural resources, Blackwell Publishing

Thomas O. McShane, *et. al.* 2011, “Hard choices: Making trade-offs between biodiversity conservation and human well-being”, *Biological Conservation*, 144: 966-972.

United Nations (2014). System of Environmental-Economic Accounting, UN Publication

Module3: Conservation and valuation of resources

Resource conservation – various international agreement to avoid resource degradation

Resource conservation and public policy – Total economic value of resources- use and nonuse value – non-market valuation techniques: revealed and stated preferences, contingent valuation and choice experiment – conceptual framework, theoretical validity, convergent validity, reliability

Suggested Reading:

Freeman, A.M., Herriges, J.A., & Kling, C.L. (2014). *The Measurement of Environmental and Resource Values Theory and Methods* (3rd ed.), RFF Press

Louviere, J.J., Hensher, D.A. and Swait, J.D. (2000). *Stated choice methods: Analysis and applications*, Cambridge University Press

Street, D.J. & Burgess, L. (2007). *The construction of optimal stated choice experiments: Theory and Methods*, John Wiley & Sons Inc. Publication

Mitchell, R.C. & Carson, R.T. (1989). *Using Surveys to Value Public Goods: The Contingent Valuation Method*, Resources for the Future Publication

Desvousges, W.H., Johnson, F.R., Dunford, R.W., Boyle, K.J., Hudson, S.P. & Wilson, K.N. (2010). *Measuring Nonuse Damages Using Contingent Valuation: An Experimental Evaluation of Accuracy* (2nd ed.), Research Triangle Institute Press.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:
 Program Name:
 Program Code:
 Semester: Semester I Semester II Semester III Semester IV
 Course Name:
 Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:
 Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

- Core
 Department Specific Elective
 Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity ? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

- Minor (up to 15%)
 Moderate (>15% and up to 50%)
 Major (> 50%)

Summary of changes

This course is newly introduced under DSE.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Tea Economics

Brief Course Description:

The course deals with topics in tea economics. In particular, the course will cover topics like genesis and evolution of tea industry in India, the domestic and international segmentation of India's tea market, the economics of smallholder tea production and the use of quantitative techniques in resource use efficiency analysis related to tea production.

Course Objectives:

This course is basically intended to use economic theory to address the problems of tea management. In particular, the course will introduce the students to a host of management issues like the value chain analysis, the productivity slow down, the productivity-linked wages, the price discovery in the tea market and the trends of tea consumption among others.

Course outcome:

On successful completion of the course, the students will be able to demonstrate their technical expertise in applying economic theory while addressing the various issues related to tea industry in an analytical way. The course will also help students to strengthen their research expertise in tea management using economic framework. In addition, they will be able to show their skills in making policy recommendations towards improving the health of the tea industry. Students will not only be able to apply their skills in subsequent semesters and Ph.D. programme but also has scope to be absorbed in organisations working on labour and related issues attached to tea industry.

Course Syllabus:

Module1: Genesis and Evolution of Tea Industry in India:

: Plantation system during the period of British Colonialism– The 'Vent-for-Surplus' Model of Plantation Development; Labour migration for Plantation Development– Accounting for Push and Pull factors; The Managing Agency System and the Operation of Plantation Enterprises; Plantation Labour Act and Other Legislations in Indian Tea Industry; Restructuring of Tea Industry– The Emergence of Small Tea Growers' System.

Module2. Indian Tea Markets:

Domestic and International –Production Profile and Domestic Consumption/Demand; Tea Marketing– Auction Vs Direct sale; E-auction and Price Realization; Trend Analysis of Auction

Prices of Tea; The Marketing of Smallholder Tea; World Tea Economy and India's Exports and Export Competitiveness.

Module3: Use of Quantitative Techniques in Economic Analysis of Tea:

Productivity and Efficiency Measurement of Organized and Unorganized Sectors using non-parametric and parametric methods–The Application of Data Envelopment Analysis (DEA) and Stochastic Frontier Regression to Cross-sectional and Panel Data; Application of Time Series Econometric Models for Demand Forecasting and Tea Price Analysis.

Suggested Readings:

Asopa, V.N. (2011), India's Global Tea Trade- reducing Shares, Declining Competitiveness, Allied Publishers Pvt. Ltd.

Bagchi, A. K. (1972), Private Investment in India 1900-1939, Cambridge University Press.

Bhowmik, S.K (1981), Class Formation in the Plantation System, People's Publishing House, Delhi

Bhowmik, S.K (2002), 'Productivity and Labour Standards in Tea Plantation Sector in India', in A. Sivananthiran and C. S. Venkata Ratnam (ed.), Labour and Social Issues in Plantations in South Asia: Role of Social Dialogue. New Delhi: ILO-SAAT and IIRA.

Coelli, T.J (1994), 'A guide to frontier Version 4.1: A Computer Programme for Stochastic Frontier Production and Cost Function estimation', Department of Econometrics, University of New England, Australia.

Coelli, T.J (1996), 'A guide to DEAP Version 2.1: A Data Envelopment Analysis (Computer) Program, CEPA Working Paper 96/08', Department of Econometrics, University of New England, Armidale.

Coelli, T., D.S.P. Rao and G.E. Battese (1998), An Introduction to Efficiency and Productivity Analysis, Kluwer Academic Publishers, Boston.

Dasgupta, Ranjit (1992), 'Plantation Labour in Colonial India' in E. Valentine Daniel, Henry Bernstein and Tom Brass (eds), Plantations, Peasants in Colonial Asia, London, Frank Cass.

Dwivedi, H.N. (1999), Production of Tea in India, with special reference to Dooars, K.P. Bagchi and Company, Calcutta.

Farrell, M (1957), 'The Measurement of Productivity Efficiency', Journal of the Royal Statistics Society. Series A, 120:253–290.

Gujarati, D., Dawn Porter and Sangeetha Gunasekar (2011), Basic Econometrics, McGraw Hill Education; 5 edition.

Hayami, Yujiro and Damodaran A (2004), 'Towards an Alternative Agrarian Reform-Tea Plantations in South India', Economic & Political Weekly. Vol. 39, No. 36.

Hyndman, Rob. J. and George Athanasopoulos (2013), Forecasting: Principles and Practice, OTexts.Com.

Jones, Stephanie (1992), Merchants of the Raj- British Managing Agency Houses in Calcutta yesterday and Today, The Macmillan Press Ltd.

Karmakar, K.G and G.D Banerjee (2005), The Tea Industry in India: A Survey, Occasional Paper 39, Department of Economic Analysis and Research, National Bank for Agriculture and Rural Development, Mumbai.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical:

Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

This is the new course under General Elective for semester IV.

PG BOS Meeting Reference Number:

Course Code:

Course Name: Contemporary Issues in Indian Economy

Brief Course Description:

This course is newly introduced with its focus on the topics related to India's economy which includes India's agricultural sector, industrial sector, labour productivity, banking sector, and monetary theory and policy.

Course Objective: To develop understanding of various issues and problems related to different sectors of Indian Economy.

Course Learning Outcomes: On successful completion of the course, students will be able to identify and analyse different problems and issues of Indian economy.

Course Syllabus:

Module 1: An Overview of Indian Economy:

Basic feature of Indian economy: Economic Planning in India- objective, strategy and objective: NITI Aayog- structure, objective and function: Approaches to economic development and its measurement – sustainable development, indicators of development- physical quality of life index (PQLI) and Human Development Index (HDI).

Module 2: Agricultural Sector:

Agricultural Development, assessment, growth and productivity: Green Revolution- meaning and significance, effect of green revolution; New agriculture strategy and major changes in agriculture policy; Policy for sustainable agriculture; Agriculture marketing and finance. WTO and Indian agriculture

Module 3: Industrial Sector:

Government regulation of industries which includes need for government intervention in industries; the ways and means of government regulation of industries; legal framework of industrial regulation in India; Indian industrial policy; control of capital markets in India;

Module 4: Labour Productivity:

The concept of labour productivity and its measurement; the determinants of labour productivity; empirical analysis of labour productivity.

Module 5: Banking Sector:

Central Banking- meaning and function, objectives and methods of credit control-quantitative and qualitative method; Commercial banking- meaning and functions, process of credit creation. Micro

Finance- Concept and progress in India. Banking sector reforms. Banking and financial Crisis- Causes and Consequences

Module 6: Monetary Theory and Policy:

Measures of money supply in India, RBI analysis of Money supply; Monetary theory: Classical monetary economics, Keynes monetary economics, Monetary policy- objectives, Intermediate targets, instruments; Evolution of Reserve Bank of India; Monetary policy framework in India, Balance sheet of RBI, Assessment of monetary credit policy of RBI.

Suggested Readings:

Acharya, S. 2003. India's Economy: Some Issues and Answers. Academic Foundation, New Delhi.
Ahluwalia, I.J. and I.M.D. Little. 1998. India's Economic Reforms and Development. Oxford University Press, New Delhi.

Bardhan, Pranab. 1998. The Political Economy of Development in India. Oxford University Press, Delhi.

Bhaduri, Amit and Deepak Nayyar. 1996. The Intelligent Person's Guide to Liberalisation. Penguin, Delhi.

Bhagwati, Jagdish. 1992. India in Transition: Freeing the Economy. Oxford University Press, Delhi.

Byres, Terence J. 1997. The State, Development Planning and Liberalisation in India. Oxford University Press, Delhi.

Chadha, G.K. 1994. Policy Perspectives in Indian Economic Development. Har-Anand, Delhi.

Chelliah, Raja J. 1996. Towards Sustainable Growth: Essays in Fiscal and Financial Sector Reforms in India. Oxford University Press, New Delhi.

Debroy, B. And Rahul Mukherji (Eds.). 2004. The Political Economy of Reforms. Bookwell Publication, New Delhi.

Dreze, Jean and Amartya Sen. 1996. India: Economic Development and Social Opportunity. Oxford University Press, New Delhi.

Dutt, Ruddar and K.P.M. Sundaram. 2005. Indian Economy. S. Chand and Company, New Delhi.

Guha, Ashok (Ed.) 1990. Economic Liberalisation, Industrial Structure and Growth in India. Oxford University Press, New Delhi.

Jalan, Bimal. 1993. India's Economic Crisis: The Way Ahead. Oxford University Press, New Delhi.

Jalan, Bimal. 1996. India's Economic Policy: Preparing for the Twenty First Century. Viking, Delhi.

Joshi, Vijay and I.M.D. LITTLE. 1996. India's Economic Reforms 1991-2001. Oxford University Press, New Delhi,

Kapila, Uma. 2020. Indian Economy: Performences and Policies. Academic Foundation, New Delhi.

Mahajan, V.S. 1994. Indian Economy Towards 2000 A.D. Deep & Deep, Delhi.

Parekh, Kirit and Radhakrishna, 2002, India Development Report 2001-02. Oxford University Press, New Delhi.

Rao, C.H. Hanumantha. and Hans Linnemann. 1996. Economic Reforms and Poverty Alleviation in India, Sage Publication, Delhi.

Sachs, Jeffrey D., Ashutosh Varshney and Nirupam Bajpai.1999. India in the Era of Economic Reforms. Oxford University Press, New Delhi.

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TEMPLATE FOR CBCS CURRICULA REVISION

Department Name:

Program Name:

Program Code:

Semester: Semester I Semester II Semester III Semester IV

Course Name:

Course Code: (For new course keep it blank; else enter the old course code)

Course Credit:

Marks Allotted: Theoretical/Practical: Continuing Evaluation:

Course Type (tick the correct alternatives):

Core

Department Specific Elective

Generic Elective

Is the course focused on employability / entrepreneurship? YES NO

Is the course focused on imparting life skill? YES NO

Is the course based on Activity ? YES NO

Percentage of change in syllabus (applicable in case of change in syllabus only)

Minor (up to 15%)

Moderate (>15% and up to 50%)

Major (> 50%)

Summary of changes

PG BOS Meeting Reference Number:

Course Code:

Course Name: DEVELOPMENT POLICY ANALYSIS

Brief Course Description:

Development policies are made to address various challenges that arises from extreme poverty, inequality and unsustainable resource use. At microlevel policy intervention by the state brings about changes in access to assets for households, reduces transaction costs in markets, better allocation of resources, achieve food security and strengthens local institutions. At macro level it helps to stabilize inflation and exchange rates; balance current account deficit and budget deficits and also help to implement better welfare programmes. The course will also include case studies to help bridge the gap between students' idea about theory and policy

Knowledge of development economics and policy will give an advantage in understanding the course.

Course objective:

The objective of the course is to enable student to screen the essential from the superfluous and develop their ability to problem solving.

Course Learning Outcomes:

On completion of the course a student will learn the method of policy analysis and will be able to prepare policy briefs and prepare policy prescriptions.

Course Content:

Module 1: Development Ethics

Ethics and Development Theory in Practice – Development Ethics in Action; Scientific Understanding of the concepts of development and underdevelopment; Scientific and Philosophical Assumptions; Methodological Individualism or Atomism Versus Holism; One Road Versus Many? One Science Versus Many; Essential Versus Historical Human Nature – Critiques; Development Plans and Strategies; Goulet on Development Ethics and Non-elite Participation.

Suggested Readings

Crocker, David. (2008). Ethics of Global Development: Agency, Capability, and Deliberative Democracy. Cambridge, Cambridge University Pres.

Gasper, D. (2008). Denis Goulet and the Project of Development Ethics: Choices in Methodology, Focus and Organization. Journal of Human Development, 9: 453-474.

Goulet, D. (1995). Development Ethics: A Guide to Theory and Practice. London, Apex Press.

Module 2: Economic Analysis of Development Policy

Goal of development policy; steps in policy analysis; goals in policy analysis – ethical, consequentialist (utilitarianism, difference principle), minimalist state

Suggested Readings:

Bellinger, W.K. (2016). *The Economic Analysis of Public Policy*, Routledge

Loomis, J. & Helfand, G. (2003). *Environmental Policy Analysis*, Kluwer Academic Publishers

Module 3: Quantitative Development Policy Analysis

Development policy intervention outcomes – efficiency and nonefficiency criteria; role of quantitative policy analysis; evaluation criteria for quantitative policy analysis – welfare and political feasibility criteria;

Suggested Readings:

Sadoulet, E. & Janvry, A. de (1995). *Quantitative Policy Analysis*, The John Hopkins University Press

Schaffner, J. (2014). *Development Economics: Theory, Empirical Research and Policy Analysis*, Wiley

Module 4: Tools for Analysing Development Policy

Benefit-cost analysis; net benefit over time and present value; choosing discount rate for public policy; impact analysis – theory of change, experimental and non-experimental method – RCT, Propensity Score Matching, Difference-in-difference

Suggested Readings:

Bellinger, W.K. (2016). *The Economic Analysis of Public Policy*, Routledge

Weimer, D.L. & Vining, A.R. (2017). *Policy Analysis: Concepts and Practice*, Routledge

White, H. and Raitzer, D.A. (2017). *Impact Evaluation for Development Interventions: Practical Guide*, Asian Development Bank, Manila

Duflo, E., Glennester, R., & Kremer, M. (2007). *Using Randomization in Development Economics Research: A Toolkit*, in Schultz, T.P. & Strauss, J. (ed.) *Handbook of Development Economics – Vol 4*, Elsevier, 3895- 3962

Gou, S. & Fraser, M.W. (2015). *Propensity Score Analysis: Statistical Methods and Analysis* (2nd ed.), Sage Publications

Module 5: Environmental Ethics

Introduction to the ethical issues on Nature, Development and Existence – Green Imperialism - the Origins of Environmentalism – Gaia Hypothesis – Deep Ecology – Ecofeminism – Recent debates on Women, Ecology and Survival in India.

Suggested Reading:

Grove, R. (1995). Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860, Cambridge, Cambridge University Press.

<https://courses.seas.harvard.edu/climate/eli/Courses/EPS281r/Sources/Gaia/Gaia-hypothesis-wikipedia.pdf>

Lovelock, James E. Gaia. (2000). A new look at life on Earth. New York, Oxford University Press.

Næss, Arne (1973). "The shallow and the deep, long-range ecology movement: a summary".

Inquiry: An Interdisciplinary Journal of Philosophy. 16 (1–4): 95–100.
doi:10.1080/00201747308601682. (Also available

at: http://www.fraw.org.uk/data/ap/naess_1972.pdf)

Shiva, V. (1988). Staying alive: Women, ecology, and survival in India. New Delhi, Kali for Women.

Module 6: Case Studies for Development Policy Analysis

Targeted transfer programmes; food and nutrition programmes; education and health programmes; workforce programme; agriculture development programmes, infrastructure development programmes, environmental policies; trade and industrial policies

Suggested Reading:

Schaffner, J. (2014). Development Economics: Theory, Empirical Research and Policy Analysis, Wiley.

Chalam, K.S. (2017). Social Economy of Development in India, Sage.

In case of any changes in Program Outcomes (PO) or Program Specific Outcomes (PSO), please refer the website <https://nbu.ac.in/acr/programmes.aspx> and share the modified PO-PSO in the same format.