



**List of Courses Focus on Employability/ Entrepreneurship/  
Skill Development**

**Department : Economics**

**Programme Name : B.A. Ist & IInd, Vth & VIth & M.A. IIIrd & IVth**

**Academic Year : 2018-19**

***List of Courses Focus on Employability/ Entrepreneurship/Skill Development***

Sr. No.	Course Code	Name of the Course
01.	SS/EC/C-102	Mathematical Method for Economics -I
02.	SS/EC/C-204	Mathematical Method for Economics -II
03.	511	Computer Fundamentals: Theory & Application- I
04.	611	Computer Fundamentals: Theory & Application- II
05.	1733-305	Econometrics-I
06.	1734-405	Econometrics-II



## Scheme and Syllabus

School of Arts: BA (Hon's): Subject: -Economics					
Semester	Course Opted	Course Code	Name of the course	Credit	Hour / week
I	Core-1	SS/EC/C-101	Introductory Microeconomics Economics	5	5
	Core -1 Tutorial	SS/EC/C-T-101	Tutorial-1 based on Core-1	1	1
	Core -2	SS/EC/C-102	Mathematical Methods for Economics-I	5	5
	Core -2 Tutorial	SS/EC/C-T-102	Tutorial-2 based on Core-2	1	1
	Generic Elective (GEI)-1	SS/EC/GE-101/C	From pool of Generic elective courses (Introductory Micro Econ)	5	5
	Generic Elective - Tutorial	SS/EC/GE-T-101/PS	Tutorial-1 based on Generic Elective-1	1	1
	Ability Enhancement Compulsory Course (AECC)	SS/EC/AE-101/EC	Environmental Science	4	4
	ECA	SS/EC/ECA-101	ECA-Extracurricular activity/Educational Tour/ Field visit/ Industrial training/NSS/Yoga/ Swachhta/ sports/ community service/ others	2	(2)
	TOTAL				24
II	Core-3	SS/EC/C-203	Introductory Macroeconomics	5	5
	Core -3 Tutorial	SS/EC/C-T-203	Tutorial-3 based on Core-3	1	1
	Core -4	SS/EC/C-204	Mathematical Methods for Economics-II	5	5
	Core -4 Tutorial	SS/EC/C - T-204	Tutorial-4 based on Core-4	1	1
	Generic Elective (GEI- B)-2	SS/EC/GE-202/PS	From pool of Generic elective courses (Introductory Macro Econ)	5	5
	Generic Elective - Tutorial	SS/EC/GE-T-202/PS	Tutorial-2 based on Generic Elective-2	1	1
	Ability Enhancement Compulsory Course (AECC)	SS/EC/AE-201/ES	English Communication/ MIL (Hindi Communication)	4	4
	ECA		ECA-Extracurricular activity/Educational Tour/ Field visit/ Industrial training/NSS/yoga/ Swachhta/ sports/ community service/ others	2	(2)
	Total				24
SUMMER Internship: 15 days (Optional)		Swayam Swachhta / NSS / Industrial/ others		2	100

19-08-2020

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SEMESTER I

B.A. (Hons.) Economics, Semester-I, Core-2  
Course: Mathematical Methods in Economics-I  
Course Code: SS/EC/C-102  
Course Credit: (5+1)

MATHEMATICAL METHODS IN ECONOMICS-I

Course Description

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

Course Outline

Unit: 1

Variables, constants and parameters; Equations and Identities; the real number system; sets and set operations;

Unit: 2

Relations and functions; types of functions: constant & polynomial functions; sequences and series: arithmetic & geometric progression and their use in economics.

Unit: 3

The derivative and the slope of a curve; process of differentiation; condition of maxima and minima of a function; Application of differentiation in economics-elasticity of demand, cost and revenues, conditions for profit maximization in simple market problems.

Unit: 4

Integration of a function- Simple concepts, Consumer and Producer's surplus.

Readings:

K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, Latest edition.

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SEMESTER II

B.A. (Hons.) Economics, Semester-II, Core-4  
Course: Mathematical Methods in Economics-II  
Course Code: SS/EC/C-204  
Course Credit: (5+1)

MATHEMATICAL METHODS IN ECONOMICS - II

Course Description

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

Course Outline

Unit: 1

Linear Programming: Graphical solution and its application in economics, Duality

Unit: 2

Matrix: various types, addition and subtraction, multiplication of matrix.

Unit: 3

Determinants, singular matrix, inverse of a matrix, solution of simultaneous equations through crammer's rule

Unit: 4

Game theory-simple and mixed strategy, saddle point solution, prisoner's dilemma

Readings:

K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, Latest edition.

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**SEMESTER-V (Core Papers)**

Paper	Semester-V	No of Credits	Total Classes
IX	Economics of Development	3	45
X	International Economics-I	3	45
XI	Statistical Methods for Economics-I	3	45
XII	Mathematical Methods in Economics-I	3	45

**SEMESTER-V (Optional Papers) (Any Two)**

Paper	Semester-V	No of Credits	Total Classes
XIII	Optional Paper I	4	45
XIV	Optional Paper II	4	45

Paper	Semester-V	No of Credits	Total Classes
1	Computer Fundamentals: Theory & Application - I	4	45
2	Industrial Economics-I	4	45
3	Agricultural Economics-I	4	45
4	History of Economic Thought-I	4	45

**Paper-IX**

**ECONOMICS OF DEVELOPMENT**

**Unit 1**

Economic growth and development — Factors affecting economic growth — Capital, labour and technology; Growth models — Harrod and Domar; Instability of equilibrium — Neo-classical growth model: —, Mrs. Joan Robinson's growth model;

**Unit 2**

Economic Development, Population and Institutions Development and underdevelopment — Perpetuation of underdevelopment; Measuring development and development gap — per capita income, Human development index and other indices of development and quality of life;— Theory of demographic transition; Population, environment; Economic development and institutions;

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**SEMESTER-VI (Core Papers)**

Paper	Semester-VI	No of Credits	Total Classes
XV	Environmental Economics	3	45
XVI	International Economics-II	3	45
XVII	Statistical Methods for Economics-II	3	45
XVIII	Mathematical Methods in Economics-II	3	45

**SEMESTER-VI (Optional Papers) (Any Two)**

Paper	Semester-VI	No of Credits	Total Classes
XIX	Optional Paper I	4	45
XX	Optional Paper II	4	45

Paper	Semester-VI	No of Credits	Total Classes
1	Computer Fundamentals: Theory & Application - II	4	45
2	Industrial Economics-II	4	45
3	Agricultural Economics-II	4	45
4	History of Economic Thought-II	4	45

**Paper-XV**

**ENVIRONMENTAL ECONOMICS**

**Unit I**

Nature of environmental economics; basic concepts-public good vs private goods, Externalities Positive & Negative

**Unit II**

Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem.

**Unit III**

Measurement of Environmental Values; Valuation methods — Market based methods; Surrogate market methods and Non-market based methods.

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### COMPUTER FUNDAMENTALS: THEORY & APPLICATION - I

**Unit -1:** Basics of Computers-Computer fundamentals; Organization and components of computer; Capabilities and Limitation, Importance of Computer Literacy, Various Generations of Computer system, classifications of Computer.

**Unit 2:** Use of Computer for Office Automation Text editors and word processor software packages, (Conceptual); Operative familiarization with MS-word.

**Unit-3:** Computer Application -Use of computer in book publication, Desktop publication, Application of computer for data analysis, Application in the field of Education, Medical, Industrial, Bank and Design and Research work, database Management & project Management, Real time or online Application, point of sale terminals, Financial Transition Terminals, Some other application of Computers, Computer with visions problems.

**Unit-4:** Use of Power Point - Power point Terminology, Views, Cresting Presentation using wizard and design templates, masters adding slide, Editing and moving text, spell checking, Finding and replacing text, formatting text, aligning text. Insert Picture in Slide, Present Animation.

**Unit-5:** Applications- Service Providers, E-Mail Tips, Text and mail communication using computers; E-mail; Choice mail; Document transfer and delivery; Internet; World Wide Web (WWW)

#### BASIC READING LIST

□□ Kerns (1993), Essentials of Microsoft windows. Word and Excell, Prentice Hall of India, New Delhi.

□□ Rajaraman, V. (1996), Fundamentals of Computers, Prentice Hall (Ind.) New Delhi.

□□ Schied, F. (1983), Theory and Problems of Computers and Programming, Schaum's Outline Series, McGraw Hill, New Delhi.

#### ADDITIONAL READING LIST

□□ Intrilligator, M.D. (1978), Econometric Models, Techniques & Applications, Prentice Hall, Englewood Cliffs, N.J.

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Paper-XIX and Paper-XX

**COMPUTER FUNDAMENTALS: THEORY & APPLICATION - II**

**Unit-1** System Basic Elements of Computer System – Central Processing Unit (CPU), Memory; Disk drives; Input and output devices; Keyboard; Mouse and VDU; Computer, peripherals like printer, scanner, digitizer, etc.; Computer software — Operating system, application.

**Unit -2** Operating System: Introduction of Operating system, History of Operating System – First, Second, Third and Fourth Generation. Operating System Concepts –Memory Management, File Management, Process Management , Types of Operating system, Functions of Ms Dos, Dos commands Batch File, Feature of DOS. Input –Output Devices, Data Transfer Schemes.

**Unit-3** Excel- MS-excel; Basics of Database; Table; Records and fields; Data entry and query processing; Operative principles of Data Analysis and Trend Forecasting Basics of statistical functions and analysis — Mean, median, mode, standard deviation; Distribution. Excel feature, spreadsheet, part of a worksheet, creating and editing worksheets, Entering and formatting numbers, dates formulas, referencing cells, Order of evaluation in formula, coping entries, auto fill, protecting and Unprotecting documents and cells, Moving, copying cell, sorting cell data.

**Unit-4** Internet Application- Brief Overview of concept of Network. Introduction about internet. Search Engine Application, Electronic stock market and exchanges.

**Unit- 5** Electronic Commerce-The Scope of Electronic Commerce, Definition of Electronic Commerce, Electronic E-commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce, E-Commerce in Perspective. E-Commerce Implementation, E-Commerce Evaluation. Characteristics of B2B Ec, Models of B2C Ec, Procurement Management Using the Buyer's Internal Marketplace, Just in Time Delivery, Other B2B Models.

**Recommended books**

- Computers and information Technology, puri and puri
- Computers Today Sanders
- Fundamentals of Computer, Diwan and Dumblekar
- Fundamentals of Computers, P. K. Sinha
- Fundamentals of Computers, Ashok Arora
- Systems Analysis and Design, Awad
- Systems Analysis and Design, Clifton

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DEPARTMENT OF ECONOMICS  
GURU GHASIDAS VISHWAVIDYALAYA, (CG)

M.A. Economics

**SEMESTER-III (Core Paper)**

Paper	Semester-III	Marks (Total-100) Internal-40 End Semester-60
XI	Indian Economic Policy-I	100
XII	Economics of Growth and Development-I	100
XIII	International Economics-I	100
XIV	Economics of Social Sector and Environment -I	100
XV	Optional Paper (Any One)	100

Optional Paper (Any One)

Paper	Semester-III	Marks (Total-100) Internal-40 End Semester-60
XV	Econometrics-I	100
XV	Gandhian Economics- I	100
XV	Demography-I	100
XV	Labour Economics-I	100

**Paper-XI  
Indian Economic Policy-I**

Unit 1

Fasters, Sustainable and Inclusive Growth; Role of State, market and other institutions; Indicators of development — PQLI, Human Development Index (HDI), gender development indices, Gender Empowerment Index  
(15 Classes)

Unit 2

Objectives and strategy of planning in India with reference to Current Five Year Plan; Developing grass-root organizations for development — Panchayats, NGOs and pressure groups.

(15 Classes)

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**SEMESTER-IV (Core Paper)**

Paper	Semester-IV	Marks (Total-100) Internal-40 End Semester-60
XVI	Indian Economic Policy-II	100
XVII	Economics of Growth and Development-II	100
XVIII	International Economics-II	100
XIX	Economics of Social Sector and Environment -II	100
XX	Optional Paper (Any One)	100

**Optional Paper (Any One)**

Paper	Semester-IV	Marks (Total-100) Internal-40 End Semester-60
XX	Econometrics-II	100
XX	Gandhian Economics- II	100
XX	Demography-II	100
XX	Labour Economics-II	100

**Paper-XVI  
Indian Economic Policy-II**

**Unit 1**

The Industrial Sector Industrial policy; Public Sector enterprises and their performance; Problem of sick units in India; Privatisation and disinvestment debate; Growth and pattern of industrialisation; Small-scale sector; Productivity in industrial sector; Exit policy — issues in labour market reforms; Approaches for employment generation  
(15 Classes)

**Unit 2**

Public Finances Fiscal federalism — Centre-state financial relations; Finances of central government; Finances state governments; Parallel economy; Problems relating to fiscal policy; Fiscal sector reforms in India.  
(10 Classes)

**Unit 3**

Analysis of price behaviour in India; Financial sector reforms; Interest rate policy; Review of monetary policy of RBI; Working of SEBI in India.  
(10 Classes)

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...kar, U. (Ed.) (1994), Environmental Economics, Oxford University Press, New Delhi.  
Schultz, T.W. (1971), Investment in Human Capital, Free Press, New York.  
Tietenberg, T. (1994), Environmental Economics and Policy, Harper Collins, New York.  
Cambridge University Press, Cambridge.

Paper-XV  
Optional Paper (Any One)

Econometrics-I

1. Meaning and Methodology of Econometrics-Nature and Scope Econometrics. The Nature of Regression Analysis and Basics of Two-Variable Regression Analysis. Estimation and Hypothesis Testing. (15 Classes)
2. Multiple Regression Model, Estimation and Inference of Non-Linear regression Model. (10 Classes)
3. Nature, Consequences, Detection and Remedial Measures of Multi Collinearity, Heteroscedasticity and Autocorrelation. (15 Classes)
4. Regression on Dummy Variable, Dynamic Econometrics Models: Autoregressive and Distributed Lag Models-Koyek approach. (10 Classes)
5. Identification and Estimation Methods (Indirect Least Square- and Two stage least square). (10 Classes)

BASIC READING LIST

1. Gujarati, D.N. (1995), Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
2. Dongherty, C. (1992), Introduction to Econometrics, Oxford University Press, New York.
3. Goldberger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.
4. Hill R. C., E.G. William and G.G. Judge (1997), Undergraduate Econometrics, Wiley, New York.
5. Kennedy. P. (1998). A Guide to Econometrics (4th Edition), MIT Press, New York.
6. Koutsoyiannis. A. (1977), Theory of Econometrics (2nd ed.), The Macmillan Press Ltd., London.
7. Krishna, K.L. (Ed.) (1997), Econometric Applications in India, Oxford University Press, New Delhi.
8. Maddala, G.S. (Ed.) (1993), Econometrics Methods and Application (2 Vols. ), Aldershot U.K.



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Optional Paper (Any One)

Econometrics-II

1. Regression Analysis and Analysis of variance: One way, two way analysis. (15 Classes)
2. Matrix Approach to Linear Regression Model. Assumptions, OLS Estimation and their properties. Interpretation of Results. (10 Classes)
3. Distributed Lag Model, Rationalization of Koyek Model. The Adaptive Expectation Model, Partial Adjustment Model. The Almon Approach to Distributed Lag Model. (15 Classes)
4. Test of equality between coefficient's (Chow Test) Application of LRM for estimation of Growth rate, demand function, production function. (10 Classes)
5. Mixed Estimation Methods, Restricted Least Squares (RLS), Durbin's Generalized Least squares and Method of Principal Components. (10 Classes)

BASIC READING LIST

1. Gujarati, D.N. (1995), Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
2. Dongherty, C. (1992), Introduction to Econometrics, Oxford University Press, New York.
3. Goldberger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.
4. Hill R. C., E.G. William and G.G. Judge (1997), Undergraduate Econometrics, Wiley, New York.
5. Kennedy, P. (1998), A Guide to Econometrics (4th Edition), MIT Press, New York.
6. Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed.), The Macmillan Press Ltd., London.
7. Krishna, K.L. (Ed.) (1997), Econometric Applications in India, Oxford University Press, New Delhi.
8. Maddala, G.S. (Ed.) (1993), Econometrics Methods and Application (2 Vols. ), Aldershot U.K.

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