



**St Aloysius College (Autonomous)**  
**Mangaluru**

**Re-accredited by NAAC “A” Grade**

**Course structure and syllabus of**  
**B.A.**  
**ECONOMICS**

**CHOICE BASED CREDIT SYSTEM**

**(2019 – 20 ONWARDS)**

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(ಸ್ವಾಯತ್ತ)

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Re-accredited by NAAC with 'A' Grade – CGPA 3.62  
Ranked 94 in College Category-2018 Under NIRF, MHRD, Government of India.  
Recognised by UGC as "College with Potential for Excellence"  
College with 'STAR STATUS' conferred by DBT, Govt. of India.

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No: SAC 40/Syllabus 2019-20

Date: 13-12-2019

### NOTIFICATION

**Sub:** Syllabus of **B.A. ECONOMICS** Under Choice Based Credit System.

- Ref:** 1. Academic Council decision dated 02-05-2019  
2. Academic Council decision with regard to CBCS Courses  
dated :16-10-2019  
3. Office Notification dated 13-12-2019

Pursuant to the Notification cited under reference (2) above, the Syllabus of **B.A. ECONOMICS** is hereby notified for implementation with effect from the academic year 2019-20.

**PRINCIPAL**

**REGISTRAR**

To:

1. The Chairman/Dean/HOD.
2. The Registrar
3. Library

**B.A. – ECONOMICS (3- Major CBCS System):**  
**Semester – wise Course Titles**

<b>SEMESTER</b>	<b>CODE</b>	<b>TITLE OF THE COURSE</b>
I Semester ( 6 hours) Core Course	Economics Core I : G102.1	<b>Micro Economic Theory</b>
II Semester ( 6 hours) Core Course	Economics II: G102.2	<b>Macro-Economic Theory</b>
III Semester ( 6 hours) Core Course	Economics III: G102.3	<b>Monetary Economics</b>
IV Semester( 6 hours) Core Course	Economics IV: G102.4	<b>International Trade and Public Finance</b>
<b>V Semester: ( 5 hours) Core Course</b>	<b>Economics V: – Compulsory: G102.5</b>	<b>Economic Thought</b>
( 5 hours)	Economics V-a – <i>Optional :G102.5a</i>	<b>Economic Statistics</b>
(5 hours)	Economics V- b- <i>Optional: G102.5b</i>	<b>Development Economics</b>
(5 hours)	Economics V- b- <i>Optional: G102.5c</i>	<b>Health Economics</b>
<b>VI Semester: ( 5 hours) Core Course</b>	<b>Economics VI – Compulsory: G102.6</b>	<b>Indian Economics</b>
( 5 hours)	Economics VIa <i>Optional- G.102.6a</i>	<b>Mathematical Economics</b>
( 5 hours)	Economics VI – b- <i>Optional :G102.6b</i>	<b>Managerial Economics</b>
( 5 hours)	Economics VI –c – <i>Optional : G102.6c</i>	<b>Environmental Economics</b>

**NOTE: Each paper is divided into 6 modules**

**B.A.: CBCS – SEMESTER WISE COURSE AND SYLLABUS**

<b>SEMESTER</b>	<b>CODE</b>	<b>TITLE OF THE COURSE</b>	<b>TITLE OF THE COURSE: FROM 2020-21 ONWARDS</b>
<b>I Semester ( 2 hours)Elective Course</b>	<b>Economics Elective Course : G102.1E</b>	<b>Economics of Insurance (only for 2019 odd semester)</b>	<b>Human Resource Economics</b>
<b>II Semester (2 hours) Elective Course</b>	<b>Economics Elective Course : G102.2E</b>	<b>Health Economics</b>	<b>Health Economics</b>
<b>III Semester(2 hours) Elective Course</b>	<b>Economics Elective Course : G102.3E</b>	<b>Indian Economy</b>	<b>Indian Economy</b>
<b>IV Semester (2 hours) Elective Course</b>	<b>Economics Elective Course : G102.4E</b>	<b>Quantitative Economics</b>	<b>Quantitative Economics</b>

**Note: CBCS courses are divided into 3 modules**

## **END – SEMESTER -QUESTION PAPER PATTERN FOR CORE COURSES**

**(From 2019-20 onwards)**

**PART A: SHORT ANSWER QUESTIONS: ANSWER IN ABOUT 10 SENTENCES:**

**4 X 5 = 20**

(Out of **SIX ANY FOUR** with at least one question from each module)

**PART B: MEDIUM ANSWER QUESTIONS: ANSWER IN ABOUT 20 SENTENCES :**

**4 X 10 = 40**

(Out of **SIX ANY FOUR** with at least one question from each module)

**PART C : ESSAY ANSWERS : ANSWER IN ABOUT 50 TO 60 SENTENCES :**

**2X 20 = 40**

(Out of **FOUR ANY TWO** with not more than one question from a single module )

**TOTAL = 100 / 3 hours duration**

**CONTINUOUS INTERNAL ASSESSMENT ( 20 % rounded to 30/ 150) : 30**

**Grand Total: 120 +30 = 150**

**The College guidelines for IA marks as given below were accepted:**

- i. Two IA exams of One and half duration each: 20 marks ( 10+10).
- ii. Participation (Attendance) : 05 marks.
- iii. Surprise tests, quiz, seminar, assignments, etc : 05 marks
- iv. Total : 20 + 05+05 = 30.

**END – SEMESTER -QUESTION PAPER PATTERN FOR ELECTIVE COURSES: CBCS :**

**ECONOMICS**

**(From 2019-20 onwards)**

**PART A: SHORT ANSWER QUESTIONS: 7 X 2= 14**

(Out of **NINE ANY SEVEN** with at least three questions from each module)

**PART B: MEDIUM ANSWER QUESTIONS: 4 X 4 = 16**

(Out of **SIX ANY FOUR** with at least two questions from each module)

**PART C: ESSAY ANSWERS QUESTIONS: 2 X 10 = 20**

(Out of **THREE ANY TWO** with not more than one question from a single module)

**TOTAL = 50 / 2 hours duration**

**INTERNAL -QUESTION PAPER PATTERN FOR ELECTIVE COURSES: CBCS –  
ECONOMICS (From 2019-20 onwards)**

PART A: SHORT ANSWER QUESTIONS: 5 X 2= 10 (Out of SIX ANY FIVE)  
 PART B: MEDIUM ANSWER QUESTIONS: 2 X 4 = 08 (Out of THREE ANY TWO)  
 PART C : ESSAY ANSWERS QUESTIONS: 1 X 7 = 07 (Out of TWO ANYONE)

**TOTAL = 25 / 1.00 hour duration**

**END SEMESTER EXAMINATION:**

Each of the open elective courses shall carry the weight of one credit for 50 marks. The Semester examination structure shall be as follows:

		Internal Assessment	Semester Examination	Duration of the examination
Semester-1	Elective course assigned	10	40	2 Hrs
Semester-2	Elective course assigned	10	40	2 Hrs
Semester-3	Elective course assigned	10	40	2 Hrs
Semester-4	Elective course assigned	10	40	2 Hrs

The continuous (Internal Assessment) assessment shall be on the following basis:

Form	Marks	Test Duration	Basis
Two Internal Tests along with the internal tests of other courses	<b>25 each- reduced to 5 marks</b>	1 hour	
Assignment	<b>03</b>	-	One assignment
Attendance	<b>02</b>	-	More than 80%-1 More than 90%-2
Total	<b>10</b>		

**TEACHING METHODOLOGY:**

- ❖ Emphasis to be given to teaching concepts.
- ❖ Theories and laws to be taught with the help of tables and diagrams or with mathematical expressions
- ❖ Discussions and workshops
- ❖ Oral presentations and Guest talks
- ❖ Assignments, seminars and project work
- ❖ Review Quizzes

**I B.A : I SEMESTER – ECONOMICS I :**  
**TITLE OF THE COURSE: G102.1: MICRO ECONOMIC THEORY**  
**6 hours per week: Total hours: 65**

**LEARNING OBJECTIVES:**

- To help students to acquire knowledge of some of the basic concepts, principles and theories of Micro Economics.
- To provide the foundation for the study of other branches of Economics.
- To develop analytical, reasoning and graphical presentation of skills.
- To enable the students to appreciate the utility of economics in day – today life.
- To enable students to understand different types of market structures and their working.
- To help students to understand the concept of distribution.

**LEARNING OUTCOME:**

- On successful completion of the course the student will be able
- To acquire knowledge of some of the basic concepts, principles and theories of Micro Economics.
- To be informative about the foundation for the study of other branches of Economics.
- Have studied analytical, reasoning and graphical presentation of skills.
- Will be able to appreciate the utility of economics in day – today life.
- Aware and understand different types of market structures and their working.
- Be familiar with the concept of distribution.
- Able to understand the consumer behaviour and able to apply the knowledge acquired in his / her day to day life in matters related to buying, selling, maximization of satisfaction, etc.

**MODULE I: INTRODUCTION TO MICRO ECONOMICS:**

**-06 Hours**

Definitions – Basic Problems of Economy – Production Possibility Curve - Concepts of Equilibrium - Stable and Unstable, Static and Dynamic, Partial and General - Micro Economics: Meaning, Nature, Scope Importance and Limitations

**MODULE II : THEORY OF CONSUMER BEHAVIOUR**

**- 12 Hours**

Consumption-meaning, types-Utility-meaning, creation, forms; Law of Diminishing Marginal Utility- Law of Equi Marginal Utility - Consumer's surplus- Practical significance; Indifference curve- Meaning, indifference map - properties- Diminishing Marginal rate of substitution - Consumer's equilibrium - Income effect, Price effect, Substitution effect, Budget line, changes in the budget line.

**MODULE III: THEORY OF DEMAND****- 12 Hours**

Demand Function, determinants of demand, Statement of the Law of Demand - Demand Schedule - Demand Curve- Causes for Its Operation –Exceptions, change in demand and quantity demanded, Elasticity of Demand - Meaning-types, degree of Price Elasticity of Demand – determinants of Price Elasticity of Demand - Methods of Measurement - Total Outlay, Proportionate, Point and Arc.

**MODULE IV: PRODUCTION, COST AND REVENUE ANALYSIS****-12 Hours**

Production: production function - short run and long run- Law of Variable Proportions – Law of returns to scale -Economies and Diseconomies of Scale. Isoquants – Marginal rate of technical substitution – properties - Supply- meaning, supply function, supply and stock, Determinants of supply - Law of Supply, Exceptions.

Cost concepts- types of cost, cost schedule, Cost Output Relationship- Short Run & Long Run. Revenue-concepts- Revenue Curves Under Perfect & Imperfect Market.

**MODULE V: PRODUCT PRICING****-14 Hours**

Perfect Competition - Features, Price- Output determination of Firm and Industry in the short – run and long- run, role of time in price determination. Monopoly - Features, classification of monopoly, Price - Output Determination under Monopoly – Price Discrimination: Types, degrees and Conditions, Price - Output Determination- Monopolistic Competition – Features, Price - Output Determination – Oligopoly – Features, Price - Output Determination – Kinked Demand curve.

**MODULE VI: THEORY OF FACTOR PRICING****-09 Hours**

Theories of Distribution: Functional and Personal Distribution- Rent: Ricardian theory of rent – Modern Theory of Rent – Concept of Quasi-rent. Wages: The marginal productivity theory of wages, Interest: Loanable Funds Theory of Interest – Keynes' Liquidity Preference Theory of Interest. Profit: The Innovations Theory of Profit – The Dynamic Theory of Profit - The Risk and Uncertainty Theories of Profit.

#### **BOOKS FOR REFERENCE:**

1. Ahuja H.L (2009) Principles of micro economics, 17<sup>th</sup> Ed, New Delhi, S Chand and Co. Ltd.
2. Ahuja H.L (2014) *Advanced Economic Theory : Micro Economic Analysis*. 21<sup>th</sup> Ed. New Delhi: S Chand and Co. Ltd.
3. Case, K. E and Oster. S (2017) Principles of Economics, New Delhi, Pearson Education Pvt. Ltd.
4. Chauhan (2009) Macro economics part II, New Delhi, PHI learning Pvt. Ltd.
5. Dewett, KK (2012) *Modern Economic Theory* New Delhi, Suthan Chand & Company.
6. Jhinghan, M.L (2004): *Advanced Economic Theory: Micro and Macro Economics*. 12<sup>th</sup> Ed.. New Delhi: Vrinda Publications (P) Ltd.
7. Jhinghan, M.L (2016) *Advanced Economic Theory: Micro and Macro Economics*, 16<sup>th</sup> Ed., New Delhi, Vrinda Publications (P) Ltd.
8. Koutsoyiannis A (1983) : *Modern Micro Economics*, 2<sup>nd</sup> edition, Hongkong, Macmillan Press Ltd.
9. Koutsoyiannis A (2016) *Modern Micro Economics*, 2<sup>nd</sup> edition, London, Macmillan Press Ltd.
10. Lipsey R G and K A Crystal (2011) Principles of Economics, 12<sup>th</sup> edition, New Delhi OUP.
11. Pyndyck, R.S., and D.L. Rubinfeld (2012) *Microeconomics*, New Delhi, Pearson Education Singapore Pvt. Ltd.
12. Ronald Bracutigam David Besasko, *Micro Economics*, 4<sup>th</sup> Revised Ed., Wiley India Pvt. Ltd.
13. Salvatore Dominick (2009) , *Micro Economics- Theory and Applications*, Oxford University Press.
14. Samuelson PA and Nordhaus WD (2009): *Economics* 19<sup>th</sup> Ed. , Tata Ma.Graw Hill Publishing Company ltd, New Delhi
15. Seth ML (1996): *Principles of Economics* 13<sup>th</sup> Ed, Agra, Lakshmi Narain Agarwal Education Publishers.
16. Varian, H.R., *Intermediate Microeconomics: A Modern Approach*, New Delhi, Affiliated East-West Press.



**I SEMESTER – Economics Elective Course**  
**TITLE OF THE COURSE: G102.1E: ECONOMICS OF INSURANCE**  
**2 hours per week (Total: 30 hours)**  
**(Only for 2019 Odd Semester)**

**LEARNING OBJECTIVES:**

- To train students in basic knowledge on insurance concepts and theories.
- To enable the students to understand the working of insurance policies.
- To equip the students with appropriate tools of analysis to deal with economics of insurance.

**LEARNING OUTCOME:**

On successful completion of the course the student is expected to get

- A thorough understanding of the various theories behind pricing of insurance products.
- Ability to identify and evaluate the risk and profit involved in insurance policies.

**MODULE I: INTRODUCTION TO INSURANCE**

**-10 Hours**

Concept of Risks –Types of Risk- Risk Management –Risk Control – Risk Management Process- Nature of Insurance -Principles of Insurance - Role of Insurance -Types of Insurance , the Economic Importance of Insurance - Reinsurance

**MODULE II: LIFE INSURANCE**

**-10 Hours**

Life insurance- meaning and definition-features of life insurance-benefits of life insurance- Life insurance products- Legal aspects of life insurance- provisions of policies - principles of underwriting of life -Basic components of a life insurance contract, procedure for issuing a life insurance policy, contractual provision of life insurance, alterations , issue of duplicate policy, nomination, assignment, lapse and revivals, policy loans.

### **MODULE III: GENERAL INSURANCE**

**-10 Hours**

General insurance – Meaning, Fundamentals, historical framework of general insurance in India- Types– Fire insurance- Marine insurance - Motor insurance - Personal accident insurance - Miscellaneous insurance - importance of general insurance.

**Health Insurance** – Need for Health Insurance in India- Types of Health Insurance - Health Insurance Schemes - Micro Health Insurance In India-Need , Potential and Challenges of Social Insurance – Rural Insurance – Need and Challenges -Various Rural Insurance Policies in India.

### **BOOKS FOR REFERENCES:**

1. Alka Mittal and S L Gupta, Principles of Insurance and Risk Management, Sultan Chand and Sons.
2. Ghuield S. and Smith P.C (2011) *The oxford Handbook of Health economics*, New York (Module 1A, 3, 4).
3. GulatiNeelam(2007) Principles of insurance management, New Delhi, Excel Bokks.
4. Gupta, P. K(2008) Insurance and Risk Management, Mumbai, Himalaya Publication House.
5. Gupta, P. K(2015) Insurance and Risk Management, 2<sup>nd</sup> Ed, Mumbai, Himalaya Publication House.
6. Henderson J.W.(2001) *Health economics and policy*, South Western, Thomson Learning.
7. Jay Battacharya, Timothy Hyde, and Peter Tu (2014) *Health Economics* , 1<sup>st</sup> Ed,, Palgrave Macmillan.
8. Kotreshwar, G(2016) Risk Management and Derivatives, Mumbai, Himalaya Publishing House.
9. Mcpake B. and Normand C, (2013), *Health Economics: An international perspective* New York, Routledge.
10. Mishra M.N. and S B Mishra(2012) Insurance Principles and Practice, New Delhi, Revised Edition, S Chand and Co.
11. Rout, HS & Panda PS (2007) Health Economics in India , New Century Publications.

12. TiwariMahendra(2013) Banking law and insurance, New Delhi, Random publication.

**I SEMESTER B.A.: Economics Elective Course :**  
**TITLE OF THE COURSE: G 102. 1E: HUMAN RESOURCE ECONOMICS**  
**2 hours per week (Total: 30 hours)**  
**(From 2020 ODD Semester onwards)**

**LEARNING OBJECTIVES:**

- To familiarize students with the basic concepts of HRM.
- To facilitate an understanding of the concepts, methods and strategies for HRD.
- To understand the process of OD and nature of planned change.

**LEARNING OUTCOMES**

- To develop the understanding of the concept of human resource and to understand its relevance in organizations.
- To analyse the strategic issues and strategies required to select and develop manpower resources.
- To know the development, implementation, and evaluation of employee recruitment and selection.

**MODULE I: HUMAN RESOURCE MANAGEMENT**

**-10 Hours**

Meaning and Importance of Human Resource, Nature of Human Resource Management , Objectives of Human Resources Management, Functions of Human Resource Management, Challenges of Human Resource Management , Human Resource Management vs Personnel Management. Human Resource Planning - Nature, Importance and Objectives of Human Resource Planning - Process of Human Resource Planning - Uses and Limitations of Human Resource Planning

**MODULE II: HUMAN RESOURCES DEVELOPMENT AND SYSTEM**

**-10 Hours**

Concept of HRD; Characteristics of HRD; Objectives of HRD; Need for HRD; HRD as a total system; Functions of HRD; HRD and Personnel Management - Attributes of HRD manager, Barriers of HRD programmes ,HRD policies; HRD Strategy, Process of Designing HRD Systems; Principles in Designing HRD Systems; Factors affecting in

HRD Systems Designing. Pre requisite for HRD; Variables in HRD Mechanism; HRD Processes; HRD Outcomes; Factors affecting HRD Climate

### **MODULE III: TRAINING AND DEVELOPMENT**

**-10 hours**

Learning- Meaning and Process of Learning , Need for Training –Types of Training , On the Job Training and Off the Job Training Methods -Team Building –Forms of Change – Pressure of Change – Change Agents – Managing Resistance to Change – Change process –Meaning and Objectives of Organisational Development – Characteristics of Organisational Development – Organisational Development Process - Phases in Organisational Development –Interventions

### **BOOKS FOR REFERENCE:**

1. Bhatia B.S.(1996) Emerging Dimensions of HRD: Role and Orientation, Deep & Deep.
2. Dayal Raghubir (1996) Dynamics of Human Resource Development, Mittal.
3. Deb Tapomay (2012), Human Resource Development, Mumbai, Ane Books Pvt. Ltd.
4. Halder U.K. (2009), Human Resource Development, New Delhi, OUP.
5. Jaygopal R. (1993) HRD conceptual analysis and Strategies, Edison.
6. Krishanavenir(2008) Human Resource Development, New Delhi, Excel books.
7. Mathur B.C. (2000) Strategy for Human Resource Development,RBSA.
8. Mc Guire David, Jorgensen (2011) Human Resource Development, Los Angels, Sage Publications.
9. Rao T.V. (1994) HRD in New Economic Environment, Tata Mcgrawhill.
10. Rao T.V. (2010), Human Resource Development, Oxford and IBH Publishing Co.Pvt. Ltd.,
11. Sheikh AM (2010), Human Resource Development, 3<sup>rd</sup> Ed, S Chand and Co Ltd.
12. Tripathi P.C. (2007) Human Resource Development,5<sup>th</sup> Ed, New Delhi, Sultan Chand and Sons.
13. Warner Jon M, DE Simonerandy L(2009) Human Resource Development, New Delhi, CEN GAGE leaning.
14. Wilson John P(2011) Human Resource Development 2<sup>nd</sup> Ed, New Delhi, Kogan Page.

**B.A: II SEMESTER – ECONOMICS II**  
**TITLE OF THE COURSE: G 102.2: MACRO ECONOMIC THEORY**  
**6 hours per week: Total hours: 65**

**LEARNING OBJECTIVES:**

- To train students in basic macroeconomic concepts and theories.
- To enable the students to understand the working of the economy at the aggregate level.
- To equip the students with appropriate tools of analysis to deal with issues and problems of macroeconomic policy
- To assist the students to develop suitable solutions for practical policy purpose which are very much expected by the society.

**LEARNING OUTCOME:**

- On successful completion of the course the student is expected to know
- The working of an economy.
- Origin scope and branches of macro economics.
- Be informative about tools of macro economics.
- To know the circulation of income and wealth in different sectors of the economy.
- a thorough understanding of the various theories behind pricing of products and factors in different market environment;
- Ability to identify and evaluate the main models of market structures and to appreciate the theories behind policy prescriptions.
- This course in Macroeconomics is expected to develop skill in economic reasoning. By the time, students complete this course, they would know the relevance of government decisions like Wage policy, monetary policy, the RBI policy, etc. in the day to day life.

**MODULE I: INTRODUCTION TO MACRO ECONOMICS**

**-09 Hours**

Macro Economics - Meaning – Branches of Macro Economics – Scope, Uses & Limitations of Macro Economics –Concept of Welfare Economics- Social welfare and Economic welfare-Problems in Measuring Welfare- Role of Value judgments in Welfare Economics.

**MODULE II: NATIONAL INCOME****-10 Hours**

Meaning –definition- concepts – GNP- GDP- NNP- GNP at Market and Factor Cost- Personal income- Disposable income- Real income – Per capita income – Measurement and difficulties in calculation of National Income. Importance of National Income Analysis. Circular Flow of Income and Wealth.

**MODULE III: THEORIES OF EMPLOYMENT****-12 Hours**

Meaning and types, causes, measurement of Unemployment, Concept of Full Employment - Classical Theory of Employment – Classical Remedies for Unemployment- Say's Law of Markets- Keynesian Theory of Employment.

**MODULE IV: TOOLS OF MACRO ECONOMICS****- 12 Hours**

Consumption Function: Meaning, Determinants - Investment Function: Meaning of Autonomous and Induced Investment, Determinants of Investment, Multiplier – Operation of Multiplier – Assumptions of Multiplier- Determinants of Multiplier. Rational Expectations Hypothesis – Supply side Economics- New Classical Macro Economics.

**MODULE V: THEORY OF BUSINESS CYCLES****- 12 Hours**

Business Cycles –Meaning– Features, types - Phases- Causes, effects – Measures to Control Business Cycles. Theories of Business Cycle - Hawtrey's Theory –Hayek's Theory –Schumpeter's Theory , Hicks Theory.

**MODULE VI: THEORY OF INFLATION AND DEFLATION****-10 Hours**

Definition of inflation - Classification of Inflation - Types of inflation - Demand Pull Inflation, Cost-Push inflation, Mark- up inflation - Effect of inflation- Inflationary Gap – Deflation-meaning, causes and Effects. Concept of Stagflation. Phillips Curve (concept only).

#### **BOOKS FOR REFERENCE:**

1. Burda Michael (2017) Macro Economics, 5<sup>th</sup> ed., Chennai, Oxford University Press.
2. Samuelson P.A and Nordhaus W.D (2017) Economics, 19<sup>th</sup> Ed., New Delhi, Tata McGraw Hill Publishing Company Ltd.
3. Dornbsch, Fischer, Startz(2017), Macroeconomics, 11<sup>th</sup> Ed, Chennai, McGraw Hill education Pvt Ltd.
4. Ahuja, H.L(2017), *Macro Economics : Theory and Policy.*, New Delhi, S Chand and Co Ltd.
5. Jhinghan, M.L (2014) *Advanced Economic Theory: Micro and Macro Economics*, 12<sup>th</sup> Ed., New Delhi, Vrinda Publications (P) Ltd.
6. Shapiro Edward (2016): *Macro Economic Analysis*, 5<sup>th</sup> Ed, New Delhi, Galgotia Publications.
7. Seth M.L (2014) Macro Economics, 30<sup>th</sup> Ed. Agra, Lakshmi Narayan Agarwal Educational Publishers.
8. Ahuja, H.L(2013) *Macro Economics : Theory and Policy.*, New Delhi, S Chnad and Co Ltd.
9. K KDewett, M H Navalur & K KBahl(2012) *Modern Economic Theory*, New Delhi, Suthan Chand & Company.
10. Lipsey R G and K A Crystal (2011) *Principles of Economics*, 12<sup>th</sup> edition, New Delhi Oxford University Press.
11. David Romer (2011) *Advanced Macro economics*, Irwin/McGraw-Hill.
12. Deepashree(2011) *Principles Of Micro Economics*, 3<sup>rd</sup> Ed., Ane Books Pvt.Ltd.
13. Vaish M.C.(2010) *Macro Economic Theory* 14<sup>th</sup> Ed. New Delhi: Vikas Publishing House.
14. Soumyen Sikdar(2009) *Principles of Macro economics*, New Delhi, Oxford University Press.

15. Samuelson P.A and Nordhaus W.D (2009) *Economics* 19th Ed. New Delhi, Tata McGraw Hill Publishing Company Ltd.
16. Shapiro Edward (2003): *Macro Economic Analysis* 5th Ed. New York, Harcourt Brace Jovanovich, Inc.
17. Ahuja H.L. (1988) *Modern Economics*, New Delhi, S Chand and Co. Ltd.
18. Jingan M.L. (1987) *Macro Economic- Theory*. New Delhi, Konark Publishers.
19. Koutsoyiannis A (1983) *Modern Micro Economics*, 2<sup>nd</sup> edition, Hongkong, Macmillan Press.
20. Seth, M L *Micro and Macro Economics*, Agra, Lakshmi Narayan Agarwal Education Publishers.



**II SEMESTER B.A. : Economics Elective Course:**  
**TITLE OF THE COURSE: G 102.2E : HEALTH ECONOMICS**  
**2 hours per week (Total: 30 hours)**

**LEARNING OBJECTIVES**

- To provide students a comprehensive view of economics of health as an emerging discipline.
- To discuss different aspects and issues related to health and hygiene with empirical evidence and policy perspectives.
- To integrate health and related aspects like sanitation to human development in the light of Sustainable Development Goals

**LEARNING OUTCOMES:**

- On completing this course the student will be able to:
- Get a working knowledge of economics of health.
- Understand the present health condition of India and the world.
- Be informative and able to understand
- Describe key behaviours that affect a consumer's health status and the cost of health care overall.
- Be able to identify the concepts of healthcare financing and payment for healthcare.
- Be able to provide an overview of how health insurance works and to compare and contrast different types of health insurance.

**MODULE I: NATURE AND SCOPE OF ECONOMICS OF HEALTH**

**-10 Hours**

Health- Meaning- Nature - Determinants of Health - Factors Affecting Health Status - Nature of Health Economics - Structure of Health Economics - Scope Of Health Economics - Economic Issues in the Health Sector - Relevance of Health Economics- Economic Dimension of Health Care -The Relevance of Economics to the Health Sector

**MODULE II: HEALTH INDICATORS**

**-10 Hours**

Health Scenario in India - Incidence of Morbidity- Chronic Illness and Acute Illness - Health Status indicators - Birth Rate - Death Rate - Life Expectancy - Density of Population - Mortality - Neonatal Mortality - Postnatal Mortality - Under Five Mortality - Infant Mortality - Maternal Mortality -- Fertility- Meaning - Meaning - Measurement - Trends - Fertility Transition in India- Urbanisation - Trends - Impact of Urbanisation on Health - Problem Aging.

### **MODULE III: FINANCING OF HEALTH SERVICES**

**-10 Hours**

Health Related Millennium Development Goals - Health care Financing - Health care Rationale for Public Investment in Health - The Need for a General Health Insurance – Various Health Insurance Schemes - Social insurance - Special Health Insurance Schemes for the Poor, Disabled and the Aged- A Comparative Analysis of Alternative Payment System Such as Health Insurance System, Pre-Payment Scheme – Saving Linked Insurance System.

#### **BOOKS FOR REFERENCE:**

1. Ghuield S. and Smith P.C.(Eds) (2011), *The oxford Handbook of Health economics*, New York (Module 1A, 3, 4)
2. Gupta, P. K(2015) *Insurance and Risk Management*, 2<sup>nd</sup> Ed, Mumbai, Himalaya Publication House.
3. HPS Rana(2009), *Health Economics*, New Delhi, Alfa Publications.
4. Jay Battacharya, Timothy Hyde, and Peter Tu,(2014), *Health Economics*, 1st Edition, Palgrave Macmillan.
5. Jonathan Gruber(2012)*Health Care Reform: What It Is, Why It's Necessary, How It Works*.
6. Kotreshwar, G(2016) *Risk Management and Derivatives*, Mumbai, Himalaya Publishing House.
7. Krishnamurthy, G R et.al. (2008). *Indian Health Scenario*, Serials Publications New Delhi
8. Mcpake B. and Normand C, (2013), *Health Economics:An international perspective*, New York, Routledge.
9. Rajiv Dasgupta (2010) Child health inequity in India. In S. Bhattacharya, S. Messenger & C. Overy (ed) *Social determinants of health*, Orient Blackswan
10. Rout, HS & Panda PS(2007),*Health Economics in India* , New Century Publications.
11. National Health Accounts India (2004-05), [http://www.whoindia.org/linkFiles/Health\\_Finance\\_National\\_Health\\_accounts\\_2004-05.pdf](http://www.whoindia.org/linkFiles/Health_Finance_National_Health_accounts_2004-05.pdf)
12. Henderson J.W.(2001), *Health economics and policy*, South Western, Thomson Learning .

**III SEM : ECONOMICS III**  
**TITLE OF THE COURSE: G102.3: MONETARY ECONOMICS**  
**6 HOURS PER WEEK (TOTAL: 65 HOURS)**

**LEARNING OBJECTIVES:**

- To understand the basic principles of monetary economics.
- To be informative about how a monetary economy works.
- To know the working of the banking system in India and across the world.
- To know the functioning of international monetary institutions.

**LEARNING OUTCOME:**

- Students will be able to:
- Understand origin and development of money.
- Obtain the knowledge and understanding of the theoretical basis for money circulation, monetary policy, mechanisms of money creation.
- Be informative about different theories of value of money.
- Understand the concept of value of money and its determination, working of monetary economy, banking system, money and capital markets, international financial institutions and their relationship with India.
- Informative about currencies and exchange values of different countries currencies.
- Understand the role of central bank of the country and its functioning.

**COURSE CONTENTS:**

**MODULE I: NATURE AND FUNCTIONS OF MONEY**

**- 08 Hours**

Money – Meaning, Functions and Classification – Money and Near Money Assets – Principles and Methods of Note Issue – Supply of Money and Determinants Of The Supply Of Money - Measures of Supply of Money– M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub> and M<sub>4</sub> - High-Powered Money - New Series of Broad Money - Velocity of Circulation of Money

**MODULE II: VALUE OF MONEY**

**-12 Hours**

Meaning - Internal Value of Money – Index Numbers - Meaning – Steps in the Construction of Index Numbers – Difficulties and Uses. Quantity Theory of Money - Cash Transaction and Cash Balance Approaches. Liquidity Theory of Money - Foreign

exchange: Meaning - determination of exchange rate -fixed and flexible exchange rate  
- merits and demerits - External Value of Money – the Purchasing Power Parity  
Theory – the Balance of Payments Theory

### **MODULE III: COMMERCIAL BANKING**

**-13 Hours**

Meaning – Types of Banks –Commercial Banks - Functions– Balance Sheet of a commercial Bank- Investment Policy - Meaning and Process of Credit Creation- Universal Banking- Merits and demerits - E- Banking - Features , Merits and demerits , Money Transfer Methods – Cheque, Draft, RTGS, EFT , NEFT, SWIFT , IMPS, Digital Cash, ATM, Credit Card, Debit Card

### **MODULE IV: CENTRAL BANKING**

**- 12 Hours**

Central Bank - Functions – Comparison between Central Bank and Commercial Banks, Credit Control Methods –Quantitative Methods: Bank Rate Policy- Cash Reserve Ratio-Open Market Operations- Selective Methods - Meaning and Objectives of Monetary Policy.

### **MODULE V: FINANCIAL SYSTEM AND MARKETS (WITH SPECIAL REFERENCE TO INDIA)**

**- 12 Hours**

Financial System - Meaning – Constituents - Functions – Money Market –Money Market Players ( Structure) - Functions –Capital Market – Capital Market Instruments – Functions. SEBI – Objectives and Functions.

### **MODULE VI: INTERNATIONAL MONETARY INSTITUTIONS**

**- 08 Hours**

International Monetary Fund - objectives - functions - World Bank - objectives - functions - Euro market, International money market, International capital market, Bond market, Equity investments, GDR, ADR, Eurobonds.

### **BOOKS FOR REFERENCES:**

1. Avadahani, V.A(2011)*Financial Services in India*, New Delhi, Himalaya Publishing House.
2. Bhole, L.M. and JintendraMahakud(2009)*Financial Institutions and Markets: Structure, Growth and Innovations* , 5<sup>th</sup> Ed, New Delhi, Tata McGraw Hill.
3. Cauvery R, Kruparani N, Nayak UK Sudha, Manimekalaica(2013), *Monetary economics*, New Delhi, S Chand and Co Pvt Ltd.
4. E Gardon& K Natarajan (2010)*Banking Theory, Law and Practice*, 22<sup>nd</sup> Ed, New Delhi, Himalaya Publishing House.
5. Gurusamy, S(2009)*Financial Markets and Institutions* 3<sup>rd</sup> Ed, Chennai, McGraw Hill.
6. Jhingan, M.L(2009) *Money, Banking, International Trade and Public Finance* 9<sup>th</sup> Ed, Delhi, Vrinda Publications.
7. Jhingan, M.L(2014), *Monetary economics*, 7<sup>th</sup> Ed, New Delhi, Vrinda Publications Pvt Ltd.
8. Jhingan, M.L.(2011)*Monetary Economics*, 7<sup>th</sup> Ed, Delhi, Vrinda Publications.
9. Khan, M.Y (2013) *Financial Services*, 7<sup>th</sup> Ed, New Delhi, Tata McGraw Hill.
10. Mouis.D(1990) *International Finance - The Markets & Financial Management Of Multinational Business*, McGraw Hill.
11. Paul, R.R. (2011) *Monetary Economics*, 4<sup>th</sup> Ed, New Delhi, Kalyani Publishers.
12. Rana Grish (2013) *Financial Institutions and markets*, Horizon press, New Delhi.

**III SEMESTER – Economics Elective Course : G102.3E**  
**TITLE OF THE COURSE: G102.3E : INDIAN ECONOMY**  
**2 hours per week (Total: 30 hours)**

**LEARNING OBJECTIVES:**

- To enable students to have an understanding of the important issues and problems of the Indian Economy.
- To make the students understand the role of various economic policies in promoting the development of Indian Economy.
- To enable students to learn critically, discuss and debate current economic issues on the basis of latest policy documents and trends.

**LEARNING OUTCOME:**

- Students will be informative about:
- The nature of Indian Economy, GDP, demographic profile, natural resources.
- Informative about all the three sectors and sectoral reforms, economic planning and steps taken for development of Indian Economy.
- Students will be knowledgeable about fundamental problems of Indian economy.
- Be informative about various initiatives of the Government of India to irradiate poverty and provide employment.
- Be aware about reforms of different sectors of Indian economy.

Students will understand the importance of different institution like NITI Aayog and Panchayath Raj in India.

**MODULE I: HUMAN RESOURCE**

**-08 Hours**

Theory of Demographic Transition- Broad Features of Indian Population; Population Growth- Causes, Effects, Rural-urban migration; Urbanization and civic amenities; National Population Policy

## **MODULE II: SELECT ECONOMIC PROBLEMS**

**-10 Hours**

Causes and consequences of Poverty, Unemployment, Income inequality, Malnutrition, Infant and Maternity Mortality in India- Food Problem of India, Problem Aging, Current Poverty and unemployment Eradication Schemes.

## **MODULE III: ECONOMIC REFORMS IN INDIA**

**-12 Hours**

Economic Crisis of 1991 – Nature and Causes, Changing Structural Characteristics of Indian Economy – Major Reforms Since 1991 related to Financial Sector, Transport Sector, Trade Sector, Fiscal Sector, Innovations in Banking Sector, Inclusive Growth, Special Economic zones, Micro Finance, Panchayath Raj System in India. Goods and Services Tax in India. NITI Ayog.

### **BOOKS FOR REFERENCE:**

1. Agarwal, A.N.(2014)*Indian Economy : Problems of Development and Planning*, 39<sup>th</sup> Ed, New Delhi, WishwaPrakashan
2. Agrawal A.N and Agarwal MK(2017) *Indian Economy, Problem and development and planning*, 42<sup>nd</sup> Ed, London, New Age International Pvt Ltd Publishers.
3. Dhingra, I.C(2012)*The Indian Economy: Environment and Policy*, 27<sup>th</sup> Ed, New Delhi, Sultan Chand & Sons.
4. I.J. Ahluwalia and I.M.D. Little(1999)*India's Economic Reforms and Development*, New Delhi, OUP,
5. Jalan, Bimal,(2004)*The Indian Economy:Problems and Prospects*, New Delhi, Penguinm
6. Lekhi, R.K and JoginderSingh(2015) *Agricultural Economics*, Ludhiana, Kalyani Publishers.
7. Mahajan, Ashwani and GauravDutt(2013) *Indian Economy*, New Delhi, 68<sup>th</sup> Ed. S. Chand & Company Ltd.
8. Mahajan, Ashwani and GauravDutt, 2016: *Indian Economy*, New Delhi, 72<sup>nd</sup> Ed. New Delhi, S Chand & Company Ltd.

9. Misra, S.K. and V.K. Puri (2012)*Indian Economy 30<sup>th</sup> Ed.*, New Delhi, Himalaya Publishing House.
10. Misra, S.K. and V.K. Puri , (2016) *Indian Economy 34<sup>th</sup> Ed.*, Mumbai, Himalaya Publishing House,
11. Sinha Yashwant, Srivastav Vinayk(2017) *Future of Indian Economy*, New Delhi, Rupa and Co.
12. *Government of India: Economic Survey* ( Annual ) New Delhi, Ministry of Finance,
13. R.B.I.: RBI Bulletins
14. *Economic and Political Weekly*, Various Issues.
15. Web-sites of Various Govt Departments and Institutions.



## **II B.A: IV SEMESTER – ECONOMICS IV**

**TITLE OF THE COURSE: G102.4: INTERNATIONAL TRADE AND PUBLIC FINANCE**

**6 HOURS PER WEEK (TOTAL: 65 HOURS)**

### **LEARNING OBJECTIVES:**

- The objective of the course is to expose students to the concept, importance and dynamics of international business and India's involvement with global business operations.
- The course also discusses theoretical foundations of international business to the extent these are relevant to understand the mechanics of global business operations and development.

### **LEARNING OUTCOME:**

- The student will be acquainted with economic concepts and models of international trade
- Explain the different concepts of terms of trade, the structure of BOP, disequilibrium in BOP, causes of disequilibrium, describe the foreign exchange rate and determine its equilibrium exchange rate and explain the objectives of IMF and IBRD.
- Understand the meaning of public finance or government finance; its nature, subject matter, explain the differences between public finance and private finance and differentiate between the public and private goods
- Classify the public revenue and its various sources; revenue receipts and non-revenue receipts, understand the tax and non-tax revenues, the causes of increasing public expenditure in the modern economies
- Explain the varying effects of public expenditure on the economy and role of public expenditure in a developing economy
- Understand the various sources of government borrowing and the reasons behind the growing public debt, describe how the debt is repaid, the role of public debt in developing countries, explain the concept of debt trap.

### **COURSE CONTENTS:**

#### **MODULE I: NATURE OF INTERNATIONAL TRADE**

**-10 Hours**

International Trade – Nature of International Trade – Distinction between International and Internal Trade - Theory of Absolute Cost Advantage – Theory of Comparative Cost Advantage – Factor Endowments Theory- Leontief Paradox - Krugmans Theory of Trade, Concept of Terms of Trade – Meaning, types and Factors Determining Terms of Trade.

**MODULE II: BALANCE OF PAYMENTS AND TRADE POLICY -12 Hours**

Meaning - Meaning of BOP and BOT – Components of BOP – Types and Causes of Disequilibrium – Methods of Correcting Disequilibrium - Free Trade- Meaning, Arguments For and Against Free Trade; Protection - Meaning, arguments For and Against Protection; Quotas - Types and Effects; Tariffs - Types and Effects ; Exchange Control - Objectives and Methods; Dumping – Meaning; Economic Integration - Meaning, Types and Advantages; W.T.O. - Origin, Objectives, Structure- Agreements, Working of WTO and Ministerial Conferences.

**MODULE III: FOREIGN EXCHANGE MARKET - 12 Hours**

Foreign trading volume-Foreign Exchange Trading locations-Details about Major traded currencies. Organization and Functions-Correspondent Banking- Nostro, Vostro and Loro Account.NRI Accounts-Types of NRI Accounts, Handling of NRI Accounts. Participants in forex market-Banks and Financial Institutions, Merchant Corporate - Other Customers-Speculators and Hedgers - Central Bank. Foreign Exchange Dealer / Market Makers and Brokers. Foreign Exchange Trading and SWIFT - Ready Exchange Rate for Trading and Non-Trading Transactions

**MODULE IV: NATURE OF PUBLIC FINANCE -10 Hours**

Meaning of Public Finance– Differences between Public Finance and Private Finance – Distinction between Public Goods and Private Goods - The Principle of Maximum Social Advantage – Market Failures – Externalities

**MODULE V: PUBLIC REVENUE AND PUBLIC EXPENDITURE -10 Hours**

Sources of Public Revenue – Taxes – Canons of Taxes – The Incidence , Shifting and Impact of Taxes - Classification of Taxes - Direct, Indirect, Progressive, Proportional and Regressive Taxes; VAT- Meaning, Merits and Demerits - The Concept of Taxable Capacity; Causes for Increasing Public Expenditure – Canons of Public Expenditure.

**MODULE VI: PUBLIC DEBT AND FINANCIAL ADMINISTRATION -11 Hours**

Types of Public Debt - Redemption of Public Debt --Meaning of Budget –Components of Budget and Concepts of Deficits in Budget; Types of Budget – Fiscal Policy – Objectives and Tools of Fiscal Policy – Deficit Financing.

### **BOOKS FOR REFERENCES:**

1. Bhatia, H.L. (2012) Public Finance, 27<sup>th</sup> Ed, New Delhi, Vikas Publishing House.
2. Bo Soderstenand Geoffrey Reed (2009) International Economics 3<sup>rd</sup> Ed, New Delhi, Macmillan Press Ltd.
3. Cherunilam, Francis (2009). International Economics, 5<sup>th</sup> ED, New Delhi, Tata McGraw-Hill Publishing Co. Ltd.
4. Cherunilam, Francis (2012). International Economics, 5<sup>th</sup> ED, New Delhi, Tata McGraw-Hill Publishing Co. Ltd.
5. Jeevanandam .C (2012) Foreign Exchange: Practice, Concepts and Control, 5<sup>th</sup> edition, New Delhi, Sultan Chand & Sons.
6. Jhingan, M.L. (2009) Money, Banking, International Trade and Public Finance 9<sup>th</sup> Ed, Delhi, Vrinda Publications.
7. Jhingan, M.L. (2015) International Economics, 6<sup>th</sup> Ed, New Delhi, Vrinda Publications Pvt Ltd.
8. Lekhi, R.K. (2016) Public Finance, 17<sup>th</sup> Ed, Ludiana, Kalyani Publishers.
9. Mishra, M.N. (2014): Insurance Principles & Practice, S. Chand.
10. Mithani, D.M. (2015) International Economics 7<sup>th</sup> Ed, Mumbai, Himalaya Publishing House.
11. Paul R. Krugman and Maurice Obstfeld Maurice Obstfeld and Peter B. Kenen (2004) The International Economy, 6<sup>th</sup> Ed., Cambridge University press
12. Salvatore, Dominick (2014), International Economics 11<sup>th</sup> Ed, New Delhi, John Wiley and Sons.
13. Singh S.K. (2010) Public Finance in Theory and Practice 8<sup>th</sup> Ed, New Delhi, Sulthan Chand and Sons.
14. Sundharam, K.P.M (2004) Money, Banking, Trade and Finance, 29<sup>th</sup> Ed, , New Delhi, Sulthan Chand and Sons.
15. Tyagi B.P (2013) Public Finance, 55<sup>th</sup> Ed, Meerat, Jai Prakash Nath Publications.

### **IV SEMESTER – Economics Elective Course: G102.4E**

#### **TITLE OF THE COURSE: G102.4E : QUANTITATIVE ECONOMICS**

**2 hours per week (Total: 30 hours)**

#### **LEARNING OBJECTIVES:**

- To acquaint the students with elementary knowledge of mathematical techniques in Economics.
- To train them to use mathematical techniques in economics.

#### **LEARNING OUTCOMES:**

- The Student will be able:

- To Apply some mathematical methods to economic theories
- Using calculus and differential equations in the economic models
- Use economic integration in applications

**MODULE I: LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS ( 10 hours)**

Linear Function - Demand Function - Supply Function - Market Equilibrium - Taxation - Subsidy - Elasticity of Demand- National Income Determination.

**MODULE II: NON- LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Quadratic Function - Simple and General market Market Equilibrium - Production Possibility Curves - Power Function - Pareto's Distribution of Income - Logarithm and Anti- Logarithms- Exponential Function - Interest Compounding, Discounting

**MODULE III: DIFFERENTIAL AND INTEGRAL CALCULUSAND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Application of Derivatives in Economics - Cost - Average and Marginal Cost Relationship - Revenue - Average and Marginal Relationship -Equilibrium of the Firm under perfect competition, monopoly, price discrimination. Integral Calculus Definite Integration - Application to Economics - Consumers Surplus - Producers Surplus - - Indefinite Integration - Cost and Revenue Analysis , National Income Analysis

**BOOKS FOR REFERENCES:**

1. Allen, R.G.D. , 2007. : *Mathematical Analysis for Economists*, Macmillan, Mumbai
2. Bhardwaj, R.S., 2007: *Mathematics for Economics and Business*, 2<sup>nd</sup> Ed. Excell Books, NewDelhi.
3. Chiang, A.C. ,1985: *Fundamental Methods of Mathematical Economics*, 3<sup>rd</sup> Ed. McGraw Hill Mumbai.
4. Dinwiddy, C., 1967, *Elementary Methods of Mathematical Economics*, Oxford University Press

5. Dowling, E.T, 2005: *Introduction to Mathematical Economics*, 2<sup>nd</sup> Ed. Schaum's Outline Series, MacGraw Hill, Mumbai.
6. Halden, K. and A.W. Pearson, ( 2002): *Introductory Mathematics for Economics and Business*, Macmillan Press Ltd, Delhi.
7. Mehta & Madnani : 1992: . *Mathematics for Economists*, S. Chand, New Delhi.
8. Simon, Carl P. and Lawrence Blume, 2007 : *Mathematics for Economics*, Viva Books Pvt Ltd, New Delhi.
9. Veerachamy, R., 2008 : *Quantitative Methods for Economists*, New Age International Publications, New Delhi.
10. Weber, Jean E. ,1982: *Mathematical Analysis* , Harper International.
11. Yamane, T., 2011: *Mathematics for Economists*, 2<sup>nd</sup> Ed. PHI Learning, New Delhi.

**III B.A V SEMESTER – ECONOMICS V**  
**TITLE OF THE COURSE: G 102.5 :ECONOMIC THOUGHT**  
**5 HOURS PER WEEK: TOTAL: 60 HOURS**

**LEARNING OBJECTIVES:**

- To study the origin and development of economics as a subject.
- To know the philosophy behind the science of economics.
- To be informative about the contribution of eminent economists.
- To understand the changing priorities of economics.

**LEARNING OUTCOME:**

- On successful completion of the course:
- Students will be informative about the contribution of eminent economists to the subject.
- Be able to understand the background of their writings and theories which help them to know the significance of economics at present times.
- Understand the relevance of economic thought at present.
- Will be able to know the difference between different schools of Economic thought.
- To be informative about Indian Economists and their contributions to economics.
- To be knowledgeable about different Nobel prize winners in Economics and their contributions.

**COURSE CONTENTS**

**MODULE I: CLASSICAL ECONOMISTS**

**-10 Hours**

Introduction- Definition and Scope of history of economic thought. Ancient, Medieval, Mercantilism thought.

**Adam Smith:** Specialisation of labour, Naturalism and Optimism, productive and unproductive labour, Theory of value, theory of distribution, Canons of taxation, Theory of foreign trade, theory of economic growth,

**David Ricardo:** Theory of value, theory of distribution, theory of rent, theory of economic development, theory of money, theory of foreign trade.

**T.R.Malthus:** Theory of Population - Theory of Market Glut, Theory of rent.

**MODULE II :MARXISM AND MARGINALISM**

**-10 Hours**

**Karl Marx :** Dialectical Materialism - Theory of Value - Theory of Surplus Value - Theory of Capital Accumulation and Crisis.

**William Stanley Jevons:** Theory of Consumption - Pure Theory of Value - Sun Spot theory of Trade Cycle.

**Karl Menger:** Battle of Methods - Theory of Value - Classification of Goods - Theory of Imputation.

### **MODULE III: NEO CLASSICAL ECONOMISTS**

**-10 Hours**

**Alfred Marshall:** Definition of Economics - Theory of Consumption - Utility - Demand, law of demand, Time Demand - Elasticity of Demand - Concept of Consumer Surplus - Theory of Value - Theory of Distribution.

**A.C.Pigou :** Wage Cut Theory, Degrees of Price Discrimination, Welfare Economics - New Welfare Economics-Theory of Employment

### **MODULE IV: MODERN ECONOMISTS**

**-10 Hours**

**J.M. Keynes:** Theory of Employment - Consumption Function - Investment Function - Economic Policy.

**Joan Robinson:** Theory of Imperfect Competition - Theory of Economic Development.

### **MODULE V: INDIAN ECONOMIC THOUGHT**

**-10 Hours**

**Kautilya:**Vartha - Wealth - Agriculture - Labour- Public Finance - Welfare State.

**Mahatma Gandhi:** Village Swaraj - Sarvodaya - Trusteeship Doctrine- Law of Bread Labour- labour welfare -Food and population- Prohibition - Industrialization - Machinery - Decentralization.

**AmarthyaSen:** Choice of Technology - Social Choice - Poverty,- Famine and HDI- Poverty Index - Economic Policy.

### **MODULE VI: SELECTED NOBEL PRIZE LAUREATES IN ECONOMICS -10 Hours**

**P.A. Samuelson** - Revealed Preference Theory , Social Welfare Function, International Trade

**Gunnar Myrdal:** Scope of Economics - Role of Economist - Welfare State and weakness of Welfare State - World Welfare State - Back Wash Effects - Asian Drama

**Paul Krugman:**New Trade Theory, New Economic Geography, International finance, Macroeconomics and fiscal policy.

**Richard H Thaler:** Positive Theory of Consumer Choice, Mental Accounting.

### **BOOKS FOR REFERENCES:**

1. DattaAmlan (1989) An Introduction to India's Economic Development Since the Nineteenth Century , Bombay, GopsonsPvt Ltd

2. Ganguli B.N (1978) Indian Economic Thought. Nineteenth Century Perspectives. New Delhi, Tata McGraw Hill Publishing Co. Ltd.
3. Gosh BN, Gosh Rama (2015), Concise history of economic thought, Himalaya, Publishing House.
4. H.L. Bhatia (2009) *History of Economic Thought, 4<sup>th</sup> Ed*, , New Delhi, Vikas Publishing House.
5. H.L. Bhatia, (2014), *History of Economic Thought*, Noida, Vikas Publishing House, Pvt Ltd.
6. Kulshrestha U. C (2012) History of Economic Thought 10<sup>th</sup> Ed, Agra, Lakshmi Narain Agarwal.
7. Lokanathan.V. (2010) *History Of Economic Thought*, New Delhi, S.Chand & Co.
8. M.Girija, A. Manimekali, L. Sasikala (2005): *History of Economic Thought*, Bangalore, Vrinda Publications Pvt Ltd.
9. Paul R. R (2014), Economic Thought, Ludhiana, Kalyani Publishers.
10. Rathan Lal Basu and Rajkumar Sen (2008): *Ancient Indian Economic Thought*, Bangalore, Rawat Publications.
11. Roll, Eri (1992) History Of Economic Thought 5<sup>th</sup> Ed, Delhi, Oxford University Press.
12. Sen Amartya (1975) *Employment, Technology and Development*, Oxford University Press, New Delhi.
13. Sr. Noelline and C.K. Renukachrya (1978) *Steam Lights in Economic Ideas*, Mysore, Ramya Prakashana.
14. Srivatsava K (1996) History of Economic Thou



**III B.A - V SEMESTER – ECONOMICS Va**  
**TITLE OF THE COURSE: G102.5a: ECONOMIC STATISTICS (Optional)**  
**5 hours per week : Total: 60 hours**

**LEARNING OBJECTIVES:**

- To train students in elementary statistical techniques in order to understand economic problems clearly.

**LEARNING OUTCOMES:**

Students will be able to:

- Apply correctly a variety of statistical techniques, both descriptive and inferential
- Use graphical and numerical methods to calculate and illustrate descriptive statistics
- Use the basic concepts of probability

**COURSE CONTENTS**

**MODULE I: MEASURES OF CENTRAL TENDENCY -10 Hours**

Mean – Arithmetic Mean, Geometric Mean and Harmonic Mean - Median – Mode – Relation between Mean, Median and Mode.

**MODULE II: MEASURES OF DISPERSION -10 Hours**

Absolute and Relative Measures – The Range – Quartile Deviation – Mean Deviation – Standard Deviation – Lorenz Curve- Coefficient of Dispersion.– Skewness - Meaning and Measures of Skewness - Karl Pearson's and Bowley's Coefficient of Skewness

**MODULE III: CORRELATION AND REGRESSION ANALYSIS -10 Hours**

Karl Pearson's Coefficient of Correlation for Individual Series – Rank Correlation – Regression Lines and Equations and Their Properties.

**MODULE IV: INDEX NUMBERS -10 Hours**

Simple and Weighted Index Numbers – Laspeyres' ,Paasche's, Fisher's and Marshall – Edgeworth's Index Numbers. – Cost of Living Index Number.

**MODULE V: TIME SERIES ANALYSIS -10 Hours**

Time Series- Meaning – Components – Measurement of Trends – Semi and Moving Averages- Principle of Least Squares and Straight Line Trend.

**MODULE VI: THEORY OF PROBABILITY AND ESTIMATION -10 Hours**

Probability –Meaning and Different Concepts – Approaches- Classical Approach – Relative Frequency Approach – Subjective approach – Axiomatic Approach - Laws and Axioms of Probability- Conditional Probability and The Concept of Interdependence - Baye's Theorem - Mathematical Expectation – Estimation- Concept and Properties of a Good Estimator

**BOOKS FOR REFERENCES:**

1. Douglas, A Lind, William G. Marchal, and Samuel A. Wathen(2012)Statistical Techniques in Business and Economics, 15<sup>th</sup> Ed, NewDelhi, TMH.
2. Gupta, S.C. and V. K. Kapoor(2010) Fundamentals of Mathematical Statistics,10<sup>th</sup> Ed, New Delhi, Sultan Chand and Sons.
3. Gupta, S.P(2011) Statistical Methods, Sultan Chand and Sons.
4. Nagar, A.L. & P.D. Sharma, *Statistical Methods of Economic Analysis*, New Delhi, S Chand & Co.
5. Pillai R.S.N. and V. Bagavathi(2013) *Statistics: Theory and Practice*, New Delhi, Sulthan Chand.

### **III B.A - V SEMESTER – ECONOMICS Vb**

**TITLE OF THE COURSE: G 102.5b :DEVELOPMENT ECONOMICS (Optional)**

**5 hrs per week: Total Hours: 60 hours**

#### **LEARNING OBJECTIVES:**

- To learn the basic concepts of growth and development.
- To know how the development process is made possible.

#### **LEARNING OUTCOMES**

- To understand the basic problems of different countries economy.
- To know the different model adopted by the various countries.
- To select appropriate model for the development and growth of the countries.

#### **COURSE CONTENTS:**

##### **MODULE I: CONCEPT OF GROWTH AND DEVELOPMENT**

**-10 Hours**

Concept of Economic Development - Distinction between Economic Growth and Economic Development – Modern Version of Economic Development-Development as Freedom- Economic Progress and Economic welfare- Measurement of Economic Development - Gross National Product - Per Capita Income – Comparative Concept – Economic Welfare Criteria- Standard of Living Criteria- Physical Quality Life Index – Human Poverty Index - Human Development Index – GII - Inequality-Adjusted Human Development Index- Gender Development Index- Gender Inequality Index- Multidimensional Poverty Index – Mathematical calculations related to Indexes- Determinants of Economic Development- Evils of Economic Development – Sustainable development – Meaning, Objectives.

##### **MODULE II: MODELS AND STRATEGIES OF ECONOMIC DEVELOPMENT AND GROWTH**

**-10 Hours**

Balanced and Unbalanced Growth Theories - Theory of Big Push – Rostow's Stages of economic growth- Dualistic theories – social, technological and financial dualism- Myrdal's Theory of Circular Causation –Neo- Classical Growth Model- Solow's Model of long-run growth, Harrod –Domar model - Growth model of Meade, Kaldor and Passinetti, Feldman Model of Growth- Harris Todaro Model- Rannis and Fei Model, Economic Growth and Income Distribution: The Kuznet's Hypothesis.

**MODULE III: CAPITAL AND ECONOMIC DEVELOPMENT****-10 Hours**

Role of Capital - COR, ICOR- Input-Output Analysis – Cost- Benefit Analysis- Capital formation – Importance of capital formation- Process of capital formation- Causes for low capital formation - Sources of Capital Formation - Domestic and External Sources – Technology and Economic Development

**MODULE IV: HUMAN RESOURCES DEVELOPMENT****-10 Hours**

Population as Growth Promoting and Growth Retarding Factor – Theory of Demographic Transition – Optimum theory of population- Disguised Unemployment As a source of Capital Formation – Need for Manpower Planning – Imbalance between Manpower Demand and Manpower Supply – Decentralised strategy for Manpower Planning- Theories of Nurkse and Lewis- Man -Power Planning.

**MODULE V: SECTORAL ASPECTS OF DEVELOPMENT****-10 Hours**

Nature and Scope of Agricultural Economics- Nature of Agricultural Production as distinct from Industry - Role of Agriculture in Economic Development; Efficiency and Productivity in Agriculture – Commercialisation and Modernisation of Agriculture - New Technology and Sustainable Agriculture – Mellor's Model of Agricultural Development – Schultz's Transformation of Traditional Agriculture - Rationale and Pattern of Industrialization in Developing Countries; Role of Industry in Economic Development - The Choice of Techniques and Appropriate Technology and Employment; Terms of Trade between Agriculture and Non- agricultural Sectors

**MODULE VI: PLANNING AND ECONOMIC DEVELOPMENT****-10 Hours**

Meaning, Objectives and Need for Economic Planning- Pre – requisites of Economic Planning- Types of Planning- Physical, Financial, Planning by Inducement, Planning by Direction , Rolling Plan , Perspective Plan, Regional Planning, Flexible and Rigid planning, Anti – Cyclical and Development Planning, Medium and Short-term Planning, Permanent and Emergency Planning, Functional and Structural Planning, Indicative and Imperative Planning- Economic Planning In India.

### BOOKS FOR REFERENCE:

1. Agrawal, R.C(2015) Economics of Development and Planning, Agra, Lakshmi NarainAgrawal Publishers.
2. Ahuja H. L (2016) Development Economic: A critical study of economic growth, development and environment, New Delhi, S. Chand Publications.
3. Baldwin R E, *Economic Development: Theory, History, Policy*, Asia Publishing House
4. Debaraj Ray (2009) Development Economics, New Delhi, Oxford University Press.
5. DebrajRay(1998)Development Economics, New Jersey, Princeton University Press.
6. Jhingan M.L.(2011)*Economics of Development and Planning*, 40<sup>th</sup> Ed, New Delhi, Vrinda Publications
7. Lekhi, R.K and JoginderSingh(2014)Economics of Development and Planning, Ludhiana, Kalyani Publishers.
8. Lekhi, R.K and JoginderSingh(2015) Agricultural Economics, Ludhiana, Kalyani Publishers.
9. Meir, G.M(2000)*Leading Issues in Economic Development*7<sup>th</sup> Ed, New Delhi, Oxford University Press.
10. Meir, G.M. & Baldwin R.E(1970) *Economic Development, Bombay, Asia Publishing House*,
11. Misra, S.K. and V.K. Puri (2016) Economics of Development *and Planning*, 16<sup>th</sup> Ed., New Delhi, Himalaya Publishing House.
12. Misra, S.K. and V.K. Puri(2012)Economics of *Development and Planning*, New Delhi, Himalaya Publishing House.
13. Shankaran S(2004)*Environmental Economics*, 3<sup>rd</sup> Ed, Madras, Margham Publications,
14. Todaro M.P(1985)*Economic Development in the Third World*, New York,Longman
15. Todaro M.P, and Stepan C Smith (2006) *Economic Development*, New York, Addison – Wesley Series in Economics.
16. Recent Human Development Reports

## **B.A - Semester -Vc**

### **TITLE OF THE COURSE: G 102.5c : HEALTH ECONOMICS**

**(Optional Paper) 5 Hours per week (Total 60 Hours)**

#### **LEARNING OBJECTIVES**

- To provide students a comprehensive view of economics of health as an emerging discipline.
- To discuss different aspects and issues related to health and hygiene with empirical evidence and policy perspectives.
- To integrate health and related aspects like sanitation to human development in the light of Sustainable Development Goals

#### **LEARNING OUTCOME**

- Get a working knowledge of economics of health.
- Understand the present health condition of India and the world.
- Be informative and able to understand
- Describe key behaviours that affect a consumer's health status and the cost of health care overall.
- Be able to identify the concepts of healthcare financing and payment for healthcare.
- Be able to provide an overview of how health insurance works and to compare and contrast different types of health insurance.

#### **MODULE I: NATURE AND SCOPE OF HEALTH ECONOMICS**

**-10 Hours**

Health- Meaning- Nature - Determinants of Health - Factors Affecting Health Status – Nature of Health Economics – Structure of Health Economics - Scope Of Health Economics - Economic Issues in the Health Sector – Relevance of Health Economics- Economic Dimension of Health Care -The Relevance of Economics to the Health Sector

#### **MODULE II: HEALTH INDICATORS**

**-10 Hours**

Health Scenario in India – Incidence of Morbidity- Chronic Illness and Acute Illness - Health Status indicators – Birth Rate – Death Rate – Life Expectancy – Density of Population - Mortality – Neonatal Mortality - Postnatal Mortality – Under Five Mortality – Infant Mortality – Maternal Mortality -- Fertility- Meaning – Meaning – Measurement – Trends – Fertility Transition in India- Urbanisation – Trends - Impact of Urbanisation on Health - Problem Aging.

#### **MODULE III: MICROECONOMIC FOUNDATIONS OF HEALTH ECONOMICS**

**-10 Hours**

Demand for Health-Uncertainty and Health Insurance Market - Alternative Insurance Mechanisms – Supply of Health: health and health care; cost of delivering health services; Market Failure and rationale for Public Intervention; Equity and Inequality -

Investment and institutions in health-care; market structures; Hospital and health service provider behavior: motivation, regulation and incentives.

**MODULE IV : HEALTH AND HUMAN DEVELOPMENT**

**-10 Hours**

Health and Human Capital -Demography and Health – Fertility and Reproductive Health Issues - Health and Labour – Women and Child Health – Health of the Elderly – Health, Poverty and Food Security

**MODULE V: HEALTH APPROACHES IN INDIA**

**-10 Hours**

Principles and practices of health care in India; Equity and health; Risks and returns in health care: Public sector versus private sector; Health financing and insurance: Universal health coverage; Out-of-pocket expenditure on health; Morbidity patterns; Health policy and outcomes. National Rural Health Mission-Health outcomes and their relationship with macroeconomic performance – Equipping institutions for Healthier Tomorrow

**MODULE VI: FINANCING OF HEALTH SERVICES**

**-10 Hours**

Health Related Millennium Development Goals - Health care Financing - Health care Rationale for Public Investment in Health - The Need for a General Health Insurance – Various Health Insurance Schemes - Social insurance - Special Health Insurance Schemes for the Poor, Disabled and the Aged- A Comparative Analysis of Alternative Payment System Such as Health Insurance System, Pre-Payment Scheme – Saving Linked Insurance System, etc

**BOOKS FOR REFERENCE:**

1. Guha S. and Smith P.C.(Eds) (2011), *The Oxford Handbook of Health Economics*, New York (Module 1A, 3, 4)
2. Henderson J.W.(2001), *Health Economics and Policy*, South Western, Thomson Learning .
3. HPS Rana(2009), *Health Economics*, New Delhi, Alfa Publications.
4. Jay Battacharya, Timothy Hyde, and Peter Tu,(2014), *Health Economics*, 1st Edition, Palgrave Macmillan.
5. Jonathan Gruber(2012)*Health Care Reform: What It Is, Why It's Necessary, How It Works*.
6. Krishnamurthy, G R et.al. (2008). *Indian Health Scenario*, Serials Publications New Delhi
7. Mcpake B. and Normand C, (2013), *Health Economics: An international perspective*, New York, Routledge.
8. National Health Accounts India (2004-05), [http://www.whoindia.org/linkFiles/Health\\_Finance\\_National\\_Health\\_accounts\\_2004-05.pdf](http://www.whoindia.org/linkFiles/Health_Finance_National_Health_accounts_2004-05.pdf)
9. Rajiv Dasgupta (2010) Child Health Inequity in India. In S. Bhattacharya, S. Messenger & C. Overy (ed) *Social Determinants of Health*, Orient Blackswan
10. Rout, HS & Panda PS(2007), *Health Economics in India* , New Century Publications.

**III B.A VI SEMESTER – ECONOMICS VI****TITLE OF THE COURSE: G 102.6: INDIAN ECONOMICS****5 hours per week: Total: 60 hours****LEARNING OBJECTIVES:**

- To enable students to have an understanding of the important issues and problems of the Indian Economy.
- To make the students understand the role of various economic policies in promoting the development of Indian Economy.
- To enable students to learn critically, discuss and debate current economic issues on the basis of latest policy documents and trends.

**LEARNING OUTCOME:**

- Students will be informative about:
- The nature of Indian Economy, GDP, demographic profile, natural resources.
- Informative about all the three sectors and sectoral reforms, economic planning and steps taken for development of Indian Economy.



- Students will be knowledgeable about fundamental problems of Indian economy.
- Be informative about various initiatives of the Government of India to irradiate poverty and provide employment.
- Be aware about reforms of different sectors of Indian economy.
- Students will understand the importance of different institution like NITI Aayog and Panchayath Raj in India.

## **COURSE CONTENTS**

### **MODULE I: NATURE OF THE INDIAN ECONOMY**

**-10 Hours**

Economic Crisis of 1991- Nature and Causes - Basic Features of Indian Economy -GDP of India – Trends, Composition and Sectoral Changes in Indian Economy - Demographic Profile - Trends in population growth, Problem of Overpopulation- Causes for and Effects of Population Growth - Population Policy, present family welfare programmes. Occupational Structure of India.

### **MODULE II: POVERTY AND UNEMPLOYMENT IN INDIA**

**- 10 Hours**

Concept of Poverty in India, Poverty Line, trends, Causes of Poverty, Unemployment in India, Causes of Unemployment in India, types and measurement of Unemployment, Current Employment Generation and Poverty Alleviation Programmes in India- Self-Help Groups -Women Empowerment, Role of self-help group in Women empowerment.

### **MODULE III: AGRICULTURE AND DEVELOPMENT**

**-10 Hours**

Nature of Indian Agriculture; Trends in Agricultural Productivity ; Land Reforms; Agricultural Credit; Micro Finance; Kisan Credit Card , Agricultural Marketing; Agricultural Policy; Impact of Globalisation on Indian Agriculture - Concept of Sustainable Agricultural Development - Food Security and Public Distribution System, Concept of Green Revolution: Merits and De Merits.

### **MODULE IV: INDUSTRY AND DEVELOPMENT**

**-10 Hours**

Industrial Sector Reforms Since 1991 –Objectives, Features. Major reforms:- Delicensing , Disinvestment, Privatisation , Foreign Direct Investment , Foreign Capital - Industrial Finance; MSMEs - Role, Problems and Government Measures for their Growth; Sources of Industrial Finance. Mudra Yojana, Startup India, Skill India. Industrial Sickness: meaning, causes - SEZ's Concept and Role

### **MODULE V: REFORMS IN THE TERTIARY SECTOR**

**-10 Hours**

Significance and Growth of Service Sector in India; Changing Scenario of Banking Services in India; Financial Sector Reforms; concept of financial inclusion. Transport Sector Reforms- road, railway, marine, air. Trade Sector Reforms; Fiscal Sector Reforms.

**MODULE VI: INFRASTRUCTURE AND ECONOMIC PLANNING -10 Hours**

Growth of Infrastructure since Independence; Energy- Sources – Energy Crisis and Reforms, Communication in India; Education –Growth and Reforms; Health – health indicators/ determinants, problem of mal-nutrition, Central and State Government Health Schemes; Economic Planning In India- Objectives, Achievements and Failures - Concept of Inclusive Growth - NITI Ayog – Panchayat Raj System in India.

**BOOKS FOR REFERENCE:**

1. Agrawal A.N and AgarwalMK(2017) Indian Economy, Problem and Development and Planning, 42<sup>nd</sup> Ed, London, New Age International Pvt Ltd Publishers.
2. Dhingra, I.C(2012),*The Indian Economy: Environment and Policy*, 27<sup>th</sup> Ed, New Delhi, Sultan Chand & Sons.
3. I.J. Ahluwalia and I.M.D. Little(1999), *India's Economic Reforms and Development*, New Delhi, OUP,
4. Jalan , Bimal,(2004),*The Indian Economy : Problems and Prospects*, New Delhi, Penguinm
5. Lekhi, R.K and Joginder Singh (2015), *Agricultural Economics*, Ludhiana, Kalyani Publishers.
6. Mahajan, Ashwani and GauravDutt(2013), *Indian Economy*, New Delhi, 68<sup>th</sup> Ed. S. Chand & Company Ltd.
7. Mahajan, Ashwani and GauravDutt, 2016, *Indian Economy*, New Delhi, 72<sup>nd</sup> Ed. New Delhi, S Chand & Company Ltd,
8. Misra, S.K. and V.K. Puri (2012), *Indian Economy 30<sup>th</sup> Ed.*, New Delhi, Himalaya Publishing House.
9. Misra, S.K. and V.K. Puri , (2016), *Indian Economy 34<sup>th</sup> Ed.*, Mumbai, Himalaya Publishing House,

10. SinhaYashwant, SrivastavVinayk(2017), Future of Indian Economy, New Delhi, Rupa and Co.
11. *Government of India: Economic Survey* ( Annual ) New Delhi, Ministry of Finance,
12. R.B.I.: RBI Bulletins
13. Economic and Political Weekly, Various Issues.
14. Web-sites of Various Govt Departments and Institutions.

## **VI SEMESTER – ECONOMICS VIa**

### **TITLE OF THE COURSE: G102.6a : MATHEMATICAL ECONOMICS**

**5 hours per week (Total: 60 hours)**

#### **LEARNING OBJECTIVES:**

- To acquaint the students with elementary knowledge of mathematical techniques in Economics.
- To train them to use mathematical techniques in economics.

#### **LEARNING OUTCOMES:**

- The Student will be able:
- To Apply some mathematical methods to economic theories
- Using calculus and differential equations in the economic models
- Use economic integration in applications
- Using Optimization and linear programming in solving mathematical problems

#### **COURSE CONTENTS:**

##### **MODULE I: NATURE AND SCOPE OF MATHEMATICAL ECONOMICS -10 Hours**

Introduction to Mathematical Economics- Advantages and Disadvantages of Mathematical Economics – Variables- Constants – Parameters – Functions – Mathematical Model

##### **MODULE II: LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS -10 Hours**

Linear Functions - Demand Function – Supply Function – Market Equilibrium – Taxation – Subsidy – Break-even Analysis - National Income Determination.

##### **MODULE III: NON- LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. -10 Hours**

Quadratic Function - Simple Market Equilibrium Production Possibility Curves - Power Function – Pareto's Distribution of Income –Logarithm and Anti- Logarithms- Exponential Function – Interest Compounding, Discounting

**MODULE IV: DIFFERENTIAL AND INTEGRAL CALCULUS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. -10 Hours**

Rules of Differentiation – Limits – Continuity – Derivative - Higher Order Derivatives – Partial Differentiation - Maxima and Minima – Application of Derivatives in Economics – Cost – Average and Marginal Cost Relationship – Revenue – Average and Marginal Relationship –Equilibrium of the Firm under Perfect Competition, Monopoly, Price Discrimination. Integral Calculus – Indefinite and Definite Integration – Application to Economics – Consumers Surplus – Producers Surplus

**MODULE V: MATRIX ALGEBRA AND THEIR APPLICATION IN ECONOMIC ANALYSIS. -10 Hours**

Matrix – Meaning, Types of Matrix – Matrix Operation- Basic Properties of Determinants- Cramer's Rule –Simple and General Equilibrium - Matrix Inversion

**MODULE VI: LINEAR PROGRAMMING AND SIMULTANEOUS EQUATIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS -10 Hours**

Basic Concept; Formulation of a LP problem; Nature of feasible, basic and optimal solutions; Solution of a LP problem through Graphical Method, Application to Economic Analysis. Simultaneous Equation and Its Applications – General Market Equilibrium

### BOOKS FOR REFERENCES:

1. Allen, R.G.D. , (2007) *Mathematical Analysis for Economists*, Mumbai, Macmillan,
2. Bhardwaj, R.S(2007) *Mathematics for Economics and Business*, 2<sup>nd</sup> Ed, NewDelhi, Excell Books.
3. Chiang(1985) *Fundamental Methods of Mathematical Economics*, London, McGraw Hill book Co.
4. Chiang, A.C(1985) *Fundamental Methods of Mathematical Economics*, 3<sup>rd</sup> Ed, Mumbai, McGraw Hill.
5. Dinwiddy, C(1967) *Elementary Methods of Mathematical Economics*, Oxford University Press.
6. Dowling, E.T(2005) *Introduction to Mathematical Economics*, 2<sup>nd</sup> Ed, Mumbai, Schaum's Outline Series, MacGraw Hill.
7. Halden, K. and A.W. Pearson( 2002) *Introductory Mathematics for Economics and Business*, Delhi, Macmillan Press Ltd.
8. Mehta & Madnani (1992) *Mathematics for Economists*, New Delhi, S. Chand.
9. Simon, Carl P. and Lawrence Blume (2007) *Mathematics for Economics*, NewDelhi, Viva Books Pvt Ltd.
10. Veerachamy(2008) *Quantitative Methods for Economists*, New Delhi, New Age International Publications.
11. Weber, Jean E(1982) *Mathematical Analysis* , Harper International.
12. Yamane, T.(2011) *Mathematics for Economists*, 2<sup>nd</sup> Ed, New Delhi, PHI Learning.

### **III B.A VI SEMESTER – ECONOMICS VIb**

#### **TITLE OF THE COURSE: G 102.6b: MANAGERIAL ECONOMICS**

**5 HOURS PER WEEK: TOTAL: 60 HOURS**

#### **LEARNING OBJECTIVES:**

- To enable the students to gain knowledge about the various tools, techniques and concepts of managerial economics.
- To understand the process of decision making by the consumers and producers.

#### **LEARNING OUTCOMES**

- To know the basic knowledge of managerial economics.
- To understand the dynamics of business.
- Helps the consumers and producers to take apt decisions.

#### **COURSE CONTENTS:**

##### **MODULE I: BUSINESS ENVIRONMENT**

**-10 Hours**

Meaning – Features of Business - Types of Business Environment – Economic-Social – Political- Technological- Geographical - Cultural- Demographic - Their Impact on Business International- SWOT Analysis - Environmental Scanning - Objectives of Business – Utility maximization- Satisfaction Maximisation- Output maximization- Simon's Satisfactory Maximization- Profit Maximisation – Sales Maximisation – Baumol's Sales Maximization Theory - Growth Maximisation— Marris' Growth Maximization Theory- Social Responsibility of Business- Forms of Business organization – Scales of Business – Emerging Trends in Business.

##### **MODULE II: DEMAND DETERMINANTS AND DISTINCTIONS**

**-10 Hours**

Demand Determinants- Producers and Consumers Demand- Derived and Autonomous Demand – Industry Demand and Company Demand- Durable Goods and Non- Durable Goods Demand- Short Run and Long – Run Demand – Total Market and Market Segment Demand.

##### **MODULE III: DEMAND FORECASTING AND CAPITAL BUDGETING**

**-10 Hours**

Meaning – Objectives – Short-run and Long-run- Factors Involved in Demand Forecasting- Methods of Demand Forecasting- Survey and Statistical Methods – Econometric method for management - Criteria of a Good Forecasting Method. Capital Budgeting - Meaning - Objectives – Steps – Techniques – Pay- Back Period- Profitability Index - Average Rate of Return Method - Net – Present Value Method – Internal Rate of Return – Mathematical Problems Related to Techniques of Capital Budgeting.

**MODULE IV: PRICING PRACTICES AND STRATEGIES:****-10 Hours**

Factors involved in Pricing Policies - Full-Cost Pricing , Cost-Plus Pricing, Marginal Cost Pricing, Target Pricing –Going Rate Pricing, Customary Pricing, Trade Association Pricing, Cyclical Pricing, Imitative Pricing and Suggested Pricing , Turnover Pricing, Price Leadership – Administered Pricing – Dual Pricing -- Transfer Pricing – Limit Pricing- Psychological Pricing –Stay-out Pricing – Price Lining- Skimming Pricing- Penetration Pricing- Peak-load Pricing- Multi Product Pricing- Competitive Bidding of Price- Differential Pricing, Time Price Differentials, Use Price Differentials, Quality Price Differentials, Quantity Price Differentials, Geographic Price Differentials, Personal Price Differentials.

**MODULE V:PROFIT PLANNING****-10 Hours**

Profit Planning and Policy - Break- Even Analysis – Break- Even Point- Breaks- Even Chart – Problems related to Break Even point -Uses and limitations- Cost Control and Cost reduction- Techniques of Cost Control-

**MODULE VI: ENTREPRENEURSHIP****-10 Hours**

Entrepreneur – Meaning, Qualities and Role of Entrepreneur, Types, Obstacles in the growth of Entrepreneurship – Distinction Between an Entrepreneur and a Manager – Intrapreneur- Women Entrepreneurship – Growth of Women entrepreneurship in India , Problems of Women Entrepreneurs – Rural Entrepreneurship – Tourism Entrepreneurship – Social Entrepreneurship – Entrepreneurship Development Programmes – Franchising – types, advantages and disadvantages - Case studies related to successful entrepreneurs.



**BOOKS FOR REFERENCES:**

1. Ashwatappa, K(2008) *Essentials of Business Environment* 10th Ed, Mumbai, Himalaya Publishing House.
2. Cherunilum, Francis(2010) *Global Economy and Business Environment: Text and Cases*, Mumbai, Himalaya Publishing House.
3. Dean , Joel(2004) *Managerial Economics*, New Dlhi, Prentice Hall.
4. Dwivedi, D.N(2004) *Managerial Economics*, 6th Ed, New Delhi , Vikas Publishing House Pvt Ltd.,
5. Henderson, J. and R.E. Quandt : *Micro Economic Theory*, McGraw Hill, New Delhi
6. Khanka s.s (2012) *Entrepreneurial Development*, 4<sup>th</sup> Ed., New Delhi, Rajendraravindra Pvt. Ltd.
7. Mehta, P.L(2006) *Managerial Economics*, 11th Edition, New Delhi, Sultan Chand & Sons,
8. Mithani P. M (2017) *Managerial Economics*, 8<sup>th</sup> Ed., Mumbai, Himalaya Publishing House.
9. Varshney, R.L. and K.L. Maheshwari(2010) *Managerial Economics*, 19th Edition, New Delhi, Sultan Chand & Sons,

### **III B.A VI SEMESTER – ECONOMICS VIc**

#### **TITLE OF THE COURSE: G 102.6c : ENVIRONMENTAL ECONOMICS**

**5 hours per week : Total: 60 hours**

#### **LEARNING OBJECTIVES:**

- To enable the students to understand the basics of environmental economics.
- To enable the students to understand the issues relating to sustainable development, environmental protection, and pollution control.
- To equip the students to deal with the public policy issues in the environmental sector.

#### **LEARNING OUTCOMES:**

On successful completion of this course students will:

- Have a detailed understanding of the discipline of environmental economics, including its key principles and methods.
- Be able to use economic techniques to analyse environmental problems and to assess environmental policies.
- Apply economic analysis to the management of the environment and natural resources.

#### **COURSE CONTENTS:**

##### **MODULE I: NATURE OF ENVIRONMENTAL ECONOMICS**

**-10 Hours**

Environmental Economics- Meaning, Nature, Scope and Importance–Common Property Resources- Tragedy of Commons-Environmental Quality as a Public Good - Relationship between Environment and Development- Environment And Ethics- Biotic And Non-Biotic Components of Environment - Basic Theory of Environmental Economics

##### **MODULE II: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

**-10 Hours**

Sustainable Development: Meaning, Objectives, Importance, Safe Minimum Standard Approach to Sustainability- Indicators of Sustainable Development -- Ecological Imbalance: Causes and Remedies- - Environmental Issues of India - Meaning of Environmental Pollution –Causes and Effects of Environmental Pollution

##### **MODULE III: RESOURCE ECONOMICS**

**-10 Hours**

Natural resource: meaning, classification, significance, Need for conservation - Trends in Global Population – Impact of Population Growth on Environment- Urbanisation: Meaning, Trends and Causes-Impact on Environment

**MODULE IV: ENVIRONMENT VALUATION AND ACCOUNTING        -10 Hours**

Environmental Accounting: Environment Impact Assessment- meaning, definition, objectives- Strategic Environmental Assessment. Valuation of Environmental Damages – Economic Valuation of Environmental Services-Hedonic Pricing Method-The Contingent Valuation Method

**MODULE V: COMMAND AND CONTROL STRATEGIES                        -10 Hours**

Theory of: Price Rationing, Pigovian taxes; Subsidies for Abatement of pollution-The case in the short and long run; Property Rights and the Coasian Approach: bargain Solution. Use of Standards; Types of Standards: Ambient Standards, Emission Standards, Technology Standards; The Economics of Standards; Economics of Enforcement.

**MODULE VI: ENVIRONMENTAL POLICY MEASURES                        -10 Hours**

Basic Approaches to Environmental Policy: Cost – Benefit Analysis – Environmental Cost of Economic Growth – Regulation and Distributive Effects of Environmental Policy – India's Environmental Policy.

### BOOKS FOR REFERENCE:

1. Bhattacharya, R.N. (Ed) (2009) *Environmental Economics: An Indian Perspective*, New Delhi, OUP.
2. EugeneT(2004)*Environmental Economics*, New Delhi, Vrinda Publications(P) Ltd.
3. Goswami, Delep (1999) *Current Laws on Environment Protection*, New Delhi, Deep& Deep Publications.
4. Hemple, Lamont C. (1998) *Environmental Economics: The Global Challenge*, Edinburgh, First East West Press.
5. Jhingan M.L, Sharma ChandarK(2014) *Environmental Economics*, Delhi, Vrinda Publications Pvt Ltd.
6. Jhingan, M.L. and Chandar K Sharma(2008)*Environmental Economics: Theory, Management and Policy*, 2<sup>nd</sup> Ed. New Delhi, Vrinda Publications.
7. Karpagam M. (2001) *Environmental Economics*, New Delhi, Sterling Publishers.
8. Katar Singh and Anil Shishodia(2008) *Environmental Economics: Theory and Applications*, Sage Publications.
9. Kolstad, C.D. (2014) *Environmental Economics*, 2<sup>nd</sup> Ed, New York, Oxford University Press.
10. Kumar, Surendra (2009)*Environmental Policies in India*, New Delhi, Northern Book Centre.
11. Pearce, D.W. and R. K. Turner (1991) *Economics of Natural Resource Use and Environment*, Baltimore, Johns Hopkins University Press.
12. Sankaran S(2004)*Environmental Economics*, Madras. Margham Publications,
13. Sengupta, R.P. (Ed) ( 2001) *Ecology and Economics: An Approach to Sustainable Development*, New Delhi, OUP.
14. Singh Katar, ShishodiaAnil(2016) *Environmental Economics*, New Delhi, Sage Publications.
15. Thompson D. (2003)*The Economics of Environmental Protection*, Cambridge, Mass, Winthrop Publisher

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**St Aloysius College (Autonomous)**  
**Mangaluru**

**Re-accredited by NAAC “A” Grade**

**Course structure and syllabus of**  
**B.Sc.**  
**ECONOMICS**

**CHOICE BASED CREDIT SYSTEM**

**(2019 – 20 ONWARDS)**

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(ಸ್ವಾಯತ್ತ)

ಮಂಗಳೂರು- ೫೭೫ ೦೦೩



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Email: principal\_sac@yahoo.com

[www.stalloysius.edu.in](http://www.stalloysius.edu.in)

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Re-accredited by NAAC with 'A' Grade – CGPA 3.62  
Ranked 94 in College Category-2018 Under NIRF, MHRD, Government of India.  
Recognised by UGC as "College with Potential for Excellence"  
College with 'STAR STATUS' conferred by DBT, Govt. of India.

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No: SAC 40/Syllabus 2019-20

Date: 13-12-2019

### NOTIFICATION

**Sub:** Syllabus of **B.Sc. ECONOMICS** Under Choice Based Credit System.

**Ref:** 1. Academic Council decision dated 02-05-2019

2. Academic Council decision with regard to CBCS Courses  
dated :16-10-2019

3. Office Notification dated 13-12-2019

Pursuant to the Notification cited under reference (2) above, the Syllabus of **B.Sc. ECONOMICS** is hereby notified for implementation with effect from the academic year 2019-20.

**PRINCIPAL**

**REGISTRAR**

To:

1. The Chairman/Dean/HOD.
2. The Registrar
3. Library

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ಮಂಗಳೂರು- ೫೭೫ ೦೦೩



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Date: .....

## NOTIFICATION

**Sub:** Syllabus of **B.Sc. ECONOMICS** Under Choice Based Credit System.

**Ref:** 1. Academic Council decision dated 12-12-2020

2. Office Notification dated .....

Pursuant to the Notification cited under reference (2) above, the changes in Syllabus of B.Sc. ECONOMICS in IV, V & VI Semesters is hereby notified for implementation with effect from the academic year 2020-21.

**PRINCIPAL**

**REGISTRAR**

To:

1. The Chairman/Dean/HOD.
2. The Registrar
3. Library

BOARD OF STUDIES		
Sl. No.	Category	Members
1.	Chairman/Chairperson	<b>Dr Norbert Lobo</b>
2.	Members of the Department	Mr Alwyn Stephen Misquith Mr Reji P. John
3.	Subject Experts	<b>Dr Venessa A.C.</b> Assistant Prof. of Economics St Agnes College (Autonomous), Mangaluru – 575 002
		<b>Dr Laxminarayana Bhat</b> Associate Prof. of Economics Besant Evening College Mangaluru-575003
4.	Vice Chancellor Nominee	<b>Dr B Ramakrishna</b> Associate Prof. of Economics University College Mangaluru-575001
5.	Representative from Industry / Corporate Sector / Allied Area	<b>Mr A D Serrao</b> Director, Albertson's International Pvt Ltd 2 <sup>nd</sup> Floor, Parin, Collectors Gate, Balmatta – Mangaluru-575001
6.	Meritorious Alumnus	<b>Dr Prakash Rao</b> Associate Prof. of Economics Poorna Prajna College Chitpady, Udupi, Karnataka 576101
7.	Student Representative	Ferdinand Balapphang Thangkhiew



**B.Sc. – ECONOMICS (3- Major CBCS System):****Semester – wise Course Titles**

<b>SEMESTER</b>	<b>CODE</b>	<b>TITLE OF THE COURSE</b>
I Semester ( 6 hours) Core Course	Economics Core I : G 513.1	Principles of Economics -I
II Semester ( 6 hours) Core Course	Economics Core II : G 513.2	Principles of Economics -II
III Semester ( 6 hours) Core Course	Economics Core III : G 513.3	Monetary Economics
IV Semester( 6 hours) Core Course	Economics Core IV: G 513.4	International Trade and Public Finance
V Semester: ( 5 hours) Core Course	Economics Core Va G 513.5a	Development Economics
( 5 hours)	Economics Core Vb G 513.5b	Mathematical Economics
VI Semester: ( 5 hours) Core Course	Economics Core VIa G 513.6a	Indian Economics
( 5 hours)	Economics Core VIb G 513.6b	Econometrics

**NOTE: Each paper is divided into 6 modules****CBCS : Courses Semester wise**

<b>SEMESTER</b>	<b>CODE</b>	<b>TITLE OF THE COURSE Only for I Sem during 2019</b>	<b>TITLE OF THE COURSE For 2020 onwards</b>
I Semester ( 2 hours) Elective Course	Economics Elective Course : G 513.1E	Economics of Human Resource Development	Human Resource Economics
II Semester ( 2 hours) Elective Course	Economics Elective Course : G 513.2E	Health Economics	Health Economics
III Semester ( 2 hours) Elective Course	Economics Elective Course : G 513.3E	Indian Economy	Indian Economy
IV Semester ( 2 hours) Elective Course	Economics Elective Course : G 513.4E	Quantitative Economics	Quantitative Economics

**END – SEMESTER -QUESTION PAPER PATTERN FOR CORE COURSES**  
**(From 2019-20 onwards)**

**PART A: SHORT ANSWER QUESTIONS: ANSWER IN ABOUT 10 SENTENCES: 4 X 5 = 20**

(Out of **SIX ANY FOUR** with at least one question from each module)

**PART B: MEDIUM ANSWER QUESTIONS: ANSWER IN ABOUT 20 SENTENCES: 4 X 10 = 40**

(Out of **SIX ANY FOUR** with at least one question from each module)

**PART C : ESSAY ANSWERS : ANSWER IN ABOUT 50 TO 60 SENTENCES : 2X 20 = 40**

(Out of **FOUR ANY TWO** with not more than one question from a single module)

**TOTAL = 100 / 3 hours duration**

**CONTINUOUS INTERNAL ASSESSMENT** (20 % rounded to 30/ 150) : 30

**Grand Total: 120 +30 = 150**

**END – SEMESTER -QUESTION PAPER PATTERN FOR ELECTIVE COURSES: CBCS :**  
**ECONOMICS**  
**(From 2019-20 onwards)**

**PART A: SHORT ANSWER QUESTIONS: 7 X 2 = 14**

(Out of **NINE ANY SEVEN** with at least three questions from each module)

**PART B: MEDIUM ANSWER QUESTIONS: 4 X 4 = 16**

(Out of **SIX ANY FOUR** with at least two questions from each module)

**PART C: ESSAY ANSWERS QUESTIONS: 2 X 10 = 20**

(Out of **THREE ANY TWO** with not more than one question from a single module)

TOTAL = 50 / 2 hours duration

**INTERNAL -QUESTION PAPER PATTERN FOR ELECTIVE COURSES: CBCS –**  
**ECONOMICS (From 2019-20 onwards)**

**PART A: SHORT ANSWER QUESTIONS: 5 X 2 = 10** (Out of **SIX ANY FIVE**)

**PART B: MEDIUM ANSWER QUESTIONS: 2 X 4 = 08** (Out of **THREE ANY TWO**)

**PART C : ESSAY ANSWERS QUESTIONS: 1 X 7 = 07** (Out of **TWO ANYONE**)

**TOTAL = 25 / 1.00 hour duration**

**END SEMESTER EXAMINATION:**

Each of the open elective courses shall carry the weight of one credit for 50 marks. The Semester examination structure shall be as follows:

		Internal Assessment	Semester Examination	Duration of the examination
Semester-1	Elective course assigned	10	40	2 Hrs
Semester-2	Elective course assigned	10	40	2 Hrs
Semester-3	Elective course assigned	10	40	2 Hrs
Semester-4	Elective course assigned	10	40	2 Hrs

The continuous (Internal Assessment) assessment shall be on the following basis:

Form	Marks	Test Duration	Basis
Two Internal Tests along with the internal tests of other courses	<b>25 each- reduced to 5 marks</b>	1 hour	
Assignment	<b>03</b>	-	One assignment
Attendance	<b>02</b>	-	More than 80%-1 More than 90%-2
Total	<b>10</b>		

**The College guidelines for IA marks as given below were accepted:**

- Two IA exams of One and half duration each: 20 marks ( 10+10).
- Participation (Attendance) : 05 marks.
- Surprise tests, quiz, seminar, assignments, etc : 05 marks

Total : 20 + 05+05 = 30.

**TEACHING METHODOLOGY:**

- ❖ Emphasis to be given to teaching concepts.
- ❖ Theories and laws to be taught with the help of tables and diagrams or with mathematical expressions
- ❖ Discussions and workshops
- ❖ Oral presentations and Guest talks
- ❖ Assignments, seminars and project work
- ❖ Review Quizzes

## **I B.Sc. : I SEMESTER – ECONOMICS**

### **Title of the Course: G 513:1: PRINCIPLES OF ECONOMICS –I**

**6 hours per week: Total hours: 65**

#### **LEARNING OBJECTIVES:**

- To help students to acquire knowledge of some of the basic concepts, principles and theories of Micro Economics.
- To provide the foundation for the study of other branches of Economics.
- To develop analytical, reasoning and graphical presentation of skills.
- To enable the students to appreciate the utility of economics in day – today life.

#### **LEARNING OUTCOME**

- On successful completion of the course the student is expected to get a thorough understanding of the consumer behaviour and able to apply the knowledge acquired in his / her day to day life in matters related to buying, selling, maximization of satisfaction, etc.

#### **MODULE-I: NATURE OF ECONOMICS**

**-10 Hours**

Definition of Economics - wealth, welfare, scarcity & growth - Micro and Macro approach. Inductive and Deductive Method - Positive Vs. Normative Study - Static and Dynamic concepts. Basic Problems of the Economy – Production Possibility Curve

#### **MODULE-II: UTILITY AND DEMAND ANALYSIS**

**-12 Hours**

Utility Analysis - Law of Diminishing Marginal Utility - Law of Equi-Marginal Utility - Demand – Demand Distinctions- Law of Demand - Factors Influencing Demand - Shifts in Demand - Meaning of Elasticity of Demand - Types – Price Elasticity –Forms, Determinants and Measurement – Importance- Income Elasticity – Cross Elasticity – Mathematical Problems related to demand, elasticity of demand , utility

#### **MODULE-III: INDIFFERENCE CURVE ANALYSIS**

**-13 Hours**

Indifference Curve Analysis - Properties –Marginal Rate of Substitution - Budget Line - Income Effect - Price Effect and Substitution Effect - - Consumer's Equilibrium - Samuelson's Revealed Preference Theory – Marshall's concept of Consumer Surplus – mathematical problems

#### **MODULE-IV: PRODUCTION ANALYSIS**

**-10 Hours**

Production function - short run and long run - Law of Variable Proportions - Economies and Diseconomies of Scale. Isoquants- properties – Producers surplus Mathematical problems

#### **MODULE – V: COST ANALYSIS**

**-10 Hours**

Costs Concepts and Classifications - Money Cost, Real Cost, Explicit Cost, Implicit Cost, Sunk Cost, Opportunity Cost, Incremental Cost, Private Cost, Social Cost; Cost in the Short Run- Fixed Cost, Variable Cost, Total Cost, Average Cost, Marginal Cost - Cost - Output Relations in Short and Long run. – Mathematical problems – Cost –benefit Analysis

## **MODULE – VI: SUPPLY AND REVENUE ANALYSIS**

**-10 Hours**

Supply - Law of Supply, Supply Function, Determinants- Exceptions Changes in Supply- Elasticity of Supply- Revenue- Total Revenue, Average Revenue, Marginal Revenue - Relationship between Average Revenue, and Marginal Revenue under Perfect Competition and Imperfect Competition - – Mathematical problems

### **REFERENCES**

1. Ahuja H.L (2014) *Advanced Economic Theory: Micro Economic Analysis*, 21<sup>st</sup> Ed, New Delhi, S Chand and Co. Ltd.
2. Bilas, Richard A (2012) *Microeconomic Theory: A Graphical Analysis*, McGraw-Hill Book Co. Kogakusha Co. Ltd.
3. Case, K. E and Oster . S (2017) *Principles of Economics*, New Delhi, Pearson Education Pvt. Ltd.
4. Chauhan.S.P.S (2010), *Micro Economics: An Advanced Treatise*, PHI Ltd.
5. Deepashree (2011) *Principles Of Micro Economics*, 3rd Ed. Ane Books Pvt.Ltd
6. Dewett, KK (2012) *Modern Economic Theory*, New Delhi, Suthan Chand & Company Pvt Ltd.
7. Jhinghan, M.L (2016) *Advanced Economic Theory: Micro and Macro Economics*, 16<sup>th</sup> Ed., New Delhi,Vrinda Publications (P) Ltd.
8. Koutsoyiannis A (2016)*Modern Micro Economics*, 2<sup>nd</sup> edition, Hongkong, Macmillan Press.
9. Lipsey R G and K A Crystal (2011) *Principles of Economics*, 12<sup>th</sup> edition, New Delhi, Oxford University Press.
10. Maddala, G.S., and E. Miller, *Microeconomics: Theory and Applications*, Singapore, McGraw- Hill International Edition.
11. Pyndyck, R.S., and D.L. Rubinfeld (2012) *Microeconomics*, New Delhi, Pearson Education Singapore Pvt. Ltd.
12. Ronald Bracutigam David Besasko, *Micro Economics*, 4<sup>th</sup> Revised Ed.,Wiley India Pvt.Ltd.
13. Salvatore Dominick (2009) *Micro Economics: Theory and Applications*, Oxford University Press Ltd.
14. Samuelson PA and Nordhaus WD (2010), *Economics* 19<sup>th</sup> Ed., , New Delhi, Tata Ma.Graw Hill publishing company Ltd.
15. Seth ML(2005), *Principles of Economics*, 13<sup>th</sup> Ed., Agra, Lakshmi Narain Agarwal Education Publishers.
16. Varian, H.R., *Intermediate Microeconomics: A Modern Approach*, New Delhi, Affiliated East-West Press.

***CBCS***

**I SEMESTER – Economics Elective Course**

**G 513.1E: ECONOMICS OF HUMAN RESOURCE DEVELOPMENT**

**2 hours per week (Total: 30 hours)**

**(Only for 2019 ODD Semester I)**

**LEARNING OBJECTIVES:**

- To facilitate an understanding of the concepts, methods and strategies for HRD.
- To familiarize students with the basic concepts of Learning and Training
- To understand the process of OD and nature of planned change.

**UNIT I: HRD- AN INTRODUCTION**

**-10 Hours**

Historical Development; Concept of HRD; Characteristics of HRD; Objectives of HRD; Need for HRD; HRD as a total system; Functions of HRD; HRD and Personnel Management - Attributes of HRD manager, Barriers of HRD programmes ,HRD policies; HRD Strategy

**UNIT II: HRD SYSTEM**

**-10 Hours**

Process of Designing HRD Systems; Principles in Designing HRD Systems; Factors affecting in HRD Systems Designing. Pre requisite for HRD; Variables in HRD Mechanism; HRD Processes; HRD Outcomes; Organizational Effectiveness. Concept of Climate; Factors affecting HRD Climate

**MODULE III: LEARNING AND DEVELOPMENT**

**-10 Hours**

Learning- Meaning and Process of Learning – Modification of Learning Behaviour- Need for Training - On the Job Training and Off the Job Training Methods - Team Building – Management by Objectives - Talent Management – Knowledge Management - Forms of Change – Pressure of Change – Change Agents – Managing Resistance to Change – Change process – Model for Change in Organisations, Meaning and Objectives of Organisational Development – Characteristics of Organisational Development – Organisational Development Process - Phases in Organisational Development –Interventions

## **BOOKS FOR REFERENCE:**

1. Bhatia B.S.(1996) Emerging Dimensions of HRD: Role and Orientation, Deep & Deep.
2. DayalRaghubir (1996) Dynamics of Human Resource Development, Mittal.
3. Deb Tapomay (2012), Human Resource Development, Mumbai, Ane Books Pvt. Ltd.
4. Halder U.K. (2009), Human Resource Development, New Delhi, OUP.
5. Jaygopal R. (1993) HRD conceptual analysis and Strategies, Edision.
6. Krishanavenir(2008) Human Resource Development, New Delhi, Excel books.
7. Mathur B.C. (2000) Strategy for Human Resource Development,RBSA.
8. McGuire David, Jorgensen(2011) Human Resource Development, Los Angels, Sage Publications.
9. Rao T.V. (1994) HRD in New Economic Environment, Tata Mcgrawhill.
- 10.Rao T.V. (2010), Human Resource Development, Oxford and IBH Publishing Co.Pvt. Ltd.,
- 11.Sheikh AM(2010), Human Resource Development, 3<sup>rd</sup> Ed, S Chand and Co Ltd.
- 12.Tripathi P.C. (2007) Human Resource Development,5<sup>th</sup> Ed, New Delhi, Sultan Chand and Sons.
- 13.Warner Jon M, DE SimonerandyL(2009) Human Resource Development, New Delhi, CEN GAGE leaning.
- 14.Wilson John P(2011) Human Resource Development 2<sup>nd</sup> Ed, New Delhi, Kogan Page.

**I SEMESTER B.Sc.: Economics Elective Course :**  
**Title of the Course: G 513.1E: HUMAN RESOURCE ECONOMICS**  
**2 hours per week (Total: 30 hours)**  
**(From 2020 ODD Semester I onwards)**

**LEARNING OBJECTIVES:**

- To familiarize students with the basic concepts of HRM.
- To facilitate an understanding of the concepts, methods and strategies for HRD.
- To understand the process of OD and nature of planned change.

**LEARNING OUTCOMES**

- To develop the understanding of the concept of human resource and to understand its relevance in organizations.
- To analyse the strategic issues and strategies required to select and develop manpower resources.
- To know the development, implementation, and evaluation of employee recruitment and selection.

**MODULE I: HUMAN RESOURCE MANAGEMENT**

**-10 Hours**

Meaning and Importance of Human Resource, Nature of Human Resource Management , Objectives of Human Resources Management, Functions of Human Resource Management, Challenges of Human Resource Management , Human Resource Management vs Personnel Management. Human Resource Planning - Nature, Importance and Objectives of Human Resource Planning - Process of Human Resource Planning - Uses and Limitations of Human Resource Planning

**MODULE II: HUMAN RESOURCES DEVELOPMENT AND SYSTEM**

**-10 Hours**

Concept of HRD; Characteristics of HRD; Objectives of HRD; Need for HRD; HRD as a total system; Functions of HRD; HRD and Personnel Management - Attributes of HRD manager, Barriers of HRD programmes ,HRD policies; HRD Strategy, Process of Designing HRD Systems; Principles in Designing HRD Systems; Factors affecting in HRD Systems Designing. Pre requisite for HRD; Variables in HRD Mechanism; HRD Processes; HRD Outcomes; Factors affecting HRD Climate

**MODULE III: TRAINING AND DEVELOPMENT**

**-10 hours**

Learning- Meaning and Process of Learning , Need for Training –Types of Training , On the Job Training and Off the Job Training Methods -Team Building –Forms of Change – Pressure of Change – Change Agents – Managing Resistance to Change – Change process –Meaning and Objectives of Organisational Development –



Characteristics of Organisational Development – Organisational Development Process -  
Phases in Organisational Development –Interventions.

**BOOKS FOR REFERENCE:**

1. Bhatia B.S.(1996) Emerging Dimensions of HRD: Role and Orientation, Deep & Deep.
2. Dayal Raghubir (1996) Dynamics of Human Resource Development, Mittal.
3. Deb Tapomay (2012), Human Resource Development, Mumbai, Ane Books Pvt. Ltd.
4. Haldar U.K. (2009), Human Resource Development, New Delhi, OUP.
5. Jaygopal R. (1993) HRD conceptual analysis and Strategies, Edision.
6. Krishanavenir(2008) Human Resource Development, New Delhi, Excel books.
7. Mathur B.C. (2000) Strategy for Human Resource Development,RBSA.
8. Mc Guire David, Jorgensen (2011) Human Resource Development, Los Angels, Sage Publications.
9. Rao T.V. (1994) HRD in New Economic Environment, Tata Mcgrawhill.
10. Rao T.V. (2010), Human Resource Development, Oxford and IBH Publishing Co.Pvt. Ltd.,
11. Sheikh AM (2010), Human Resource Development, 3<sup>rd</sup> Ed, S Chand and Co Ltd.
12. Tripathi P.C. (2007) Human Resource Development,5<sup>th</sup> Ed, New Delhi, Sultan Chand and Sons.
13. Warner Jon M, DE Simonerandy L(2009) Human Resource Development, New Delhi, CEN GAGE leaning.
14. Wilson John P(2011) Human Resource Development 2<sup>nd</sup> Ed, New Delhi, Kogan Page.

## **I B.Sc. : II SEMESTER – ECONOMICS**

**Title of the Course: G 513:2: PRINCIPLES OF ECONOMICS –II**

**6 hours per week: Total hours: 65**

### **LEARNING OBJECTIVES:**

- The objective of the course is to acquaint the students with various market structures within which a firm operates. The course also deals with long-term decision making and market efficiency.
- To train students in basic macroeconomic concepts and theories.
- To enable the students to understand the working of the economy at the aggregate level.
- To equip the students with appropriate tools of analysis to deal with issues and problems of macroeconomic policy
- To assist the students to develop suitable solutions for practical policy purpose which are very much expected by the society.

### **LEARNING OUTCOMES:**

On successful completion of the course the student is expected to get

- a thorough understanding of the various theories behind pricing of products and factors in different market environment;
- ability to identify and evaluate the main models of market structures and to appreciate the theories behind policy prescriptions.
- This course in Macroeconomics is expected to develop skill in economic reasoning. By the time, students complete this course, they would know the relevance of government decisions like Wage policy, monetary policy, the RBI policy, etc. in the day to day life.

### **MODULE- I : MARKET STRUCTURES AND PRODUCT PRICING**

**-12 Hours**

Market - Market Structures - Perfect Competition - Features - Equilibrium of Firm and Industry – Effect of Changes in Demand and Supply on Equilibrium Price- Time Elements (Market period, Short period and long period) - Monopoly-Features and Types - Equilibrium under Monopoly - Control of Monopoly- Discriminating Monopoly – Types- Conditions -Price - Output determination - Mathematical Problems related to simple market model, general equilibrium model, perfect competition, monopoly and discriminatory monopoly

### **MODULE- II : IMPERFECT COMPETITION**

**- 10 Hours**

Monopolistic competition - equilibrium - oligopoly and interdependence - kinked demand model - Cournot's duopoly model, Collusive oligopoly - price-leadership model – dominant firm, cartels, sales maximisation. Contestable markets theory. – Mathematical problems

**MODULE: III : FACTOR PRICING****-12 Hours**

Wages - Nominal and Real Wages - Theories of Wages - Subsistence Theory of wages - Wage fund Theory – Rent- Theories of Rent - Ricardian Theory of Rent- Modern Theory of Rent- Quasi Rent – Theories of Interest - Classical Theory - Loanable Fund theory (Neoclassical theory) Keynes' Liquidity Preference Theory. Profit - Theories of Profit - Dynamic Theory - Innovation Theory - Risk Theory – Uncertainty Bearing Theory.

**MODULE: IV : BASIC CONCEPTS OF MACRO ECONOMICS****-09 Hours**

Meaning- Scope, Uses and Limitations of Macro Economics - National Income - Meaning - definition - concepts of National Income - GNP -GDP - NNP - NDP- NI at Factor cost, Personal Income and Disposable Income- Per capita Income (Real and Nominal ) - National Income Deflator – Methods of Measuring National Income - Difficulties in Measuring National Income - Circular flow of income – mathematical problems on National income calculation

**MODULE: V: THEORIES OF EMPLOYMENT****-12 Hours**

Meaning and types of Unemployment –Concept of Full Employment - Classical Theory of Employment – Classical Remedies for Unemployment- Say's Law of Markets- Keynesian Theory of Employment - consumption Function: Meaning, Determinants- Investment Function: Meaning of Autonomous and Induced Investment Determinants of Investment, - Multiplier – Operation of Multiplier – Assumptions of Multiplier- Determinants of Multiplier. The Principle of Accelerator – Super-multiplier – mathematical problems on National income determination, consumption function, national income distribution

**MODULE: VI: BUSINESS CYCLES****-10 Hours**

Business Cycles –Meaning– Features - Phases- Causes – Measures to Control Business Cycles. Theories of Business Cycle - Hawtrey's Theory –Hayek's Theory –Schumpeter's Theory Definition of Inflation - Classification of Inflation - Causes - Types of inflation - Demand Pull Inflation, Cost-Push inflation, Mark- up inflation - Effect of inflation- Inflationary Gap – Phillips curve, the trade- off between inflation and unemployment - Deflation-meaning, causes and Effects. Concept of Stagflation

### **BOOKS FOR REFERENCE**

1. Ahuja H.L (2014) *Advanced Economic Theory: Micro Economic Analysis*, 20<sup>th</sup> Ed., New Delhi, S Chand and Co. Ltd.
2. Burda Michael (2017) *Macro Economics*, 5<sup>th</sup> ed., Chennai, Oxford University Press.
3. Chauhan.S.P.S (2010) *Micro Economics: An Advanced Treatise*, PHI.
4. David Romer (2011) *Advanced Macroeconomics*, Irwin/McGraw-Hill.
5. Deepashree(2011) *Principles Of Micro Economics*, 3<sup>rd</sup> Ed., Ane Books Pvt.Ltd.
6. Dewett, KK (2012) *Modern Economic Theory*, New Delhi: Suthan Chand.
7. Jhinghan, M.L (2014) *Advanced Economic Theory: Micro and Macro Economics*, 12<sup>th</sup> Ed., New Delhi, Vrinda Publications (P) Ltd.
8. K KDewett, M H Navalur & K KBahl (2012) *Modern Economic Theory*, New Delhi, Suthan Chand & Company.
9. Lipsey R G and K A Crystal (2011) *Principles of Economics*, 12<sup>th</sup> edition, New Delhi Oxford University Press.
10. Samuelson P.A and Nordhaus W.D (2017) *Economics*, 19<sup>th</sup> Ed., New Delhi, Tata McGraw Hill Publishing Company Ltd.
11. Samuelson PA and Nordhaus WD (2010) *Economics* 19<sup>th</sup> Ed., Tata Ma.Graw Hill publishing company ltd, New Delhi
12. Seth M.L (2014) *Macro Economics*, 30<sup>th</sup> Ed., Agra, Lakshmi Narayan Agarwal Educational Publishers.
13. Shapiro Edward (2016): *Macro-economic analysis*, 5<sup>th</sup> ed, new delhi, galgotia publications.
14. Vaish M.C.(2010) *Macro Economic Theory*, 14<sup>th</sup> Ed., New Delhi: Vikas Publishing House.
15. Salvatore Dominick (2009) , *Micro Economics Theory and Applications*, Oxford University Press Ltd.
16. Koutsoyiannis A (2008) *Modern Micro Economics*, 2<sup>nd</sup> edition, Macmillan Press, Hongkong.
17. Mankiw, N. Gregory (2006): *Macroeconomics*, New York, WH Freeman Ltd.
18. Shapiro Edward (2003), *Macro Economic Analysis*, 5<sup>th</sup> Ed., New York, Harcourt Brace Jovanovich, Inc .
19. Maddala, G.S., and E. Miller (1989) *Microeconomics: Theory and Applications*, Singapore ,McGraw Hill International Edition.
20. Jingan M.L (1987) *Macro Economic Theory*, New Delhi, Konark Publishers.
21. Bilas, Richard A, *Microeconomic Theory: A Graphical Analysis*, McGraw-Hill Book Co. Kogakusha Co. Ltd.

**II SEMESTER B.Sc. : Economics Elective Course:**  
**Title of the Course: G 513.2E: : HEALTH ECONOMICS**  
**2 hours per week (Total: 30 hours)**

**LEARNING OBJECTIVES**

- To provide students a comprehensive view of economics of health as an emerging discipline.
- To discuss different aspects and issues related to health and hygiene with empirical evidence and policy perspectives.
- To integrate health and related aspects like sanitation to human development in the light of Sustainable Development Goals

**LEARNING OUTCOMES:**

- On completing this course the student will be able to:
- Get a working knowledge of economics of health.
- Understand the present health condition of India and the world.
- Be informative and able to understand
- Describe key behaviours that affect a consumer's health status and the cost of health care overall.
- Be able to identify the concepts of healthcare financing and payment for healthcare.
- Be able to provide an overview of how health insurance works and to compare and contrast different types of health insurance.

**MODULE I: NATURE AND SCOPE OF ECONOMICS OF HEALTH**

**-10 Hours**

Health- Meaning- Nature - Determinants of Health - Factors Affecting Health Status – Nature of Health Economics – Structure of Health Economics - Scope of Health Economics - Economic Issues in the Health Sector – Relevance of Health Economics- Economic Dimension of Health Care -The Relevance of Economics to the Health Sector

**MODULE II: HEALTH INDICATORS**

**-10 Hours**

Health Scenario in India – Incidence of Morbidity- Chronic Illness and Acute Illness - Health Status indicators – Birth Rate – Death Rate – Life Expectancy – Density of Population - Mortality – Neonatal Mortality - Postnatal Mortality – Under Five Mortality – Infant Mortality – Maternal Mortality -- Fertility- Meaning – Meaning – Measurement – Trends – Fertility Transition in India- Urbanisation – Trends - Impact of Urbanisation on Health - Problem Aging.

### MODULE III: FINANCING OF HEALTH SERVICES

-10 Hours

Health Related Millennium Development Goals - Health care Financing - Health care Rationale for Public Investment in Health - The Need for a General Health Insurance – Various Health Insurance Schemes - Social insurance - Special Health Insurance Schemes for the Poor, Disabled and the Aged- A Comparative Analysis of Alternative Payment System Such as Health Insurance System, Pre-Payment Scheme – Saving Linked Insurance System.

#### BOOKS FOR REFERENCE:

1. Ghuield S. and Smith P.C.(Eds) (2011), *The oxford Handbook of Health economics*, New York (Module 1A, 3, 4)
2. Gupta, P. K(2015) Insurance and Risk Management, 2<sup>nd</sup> Ed, Mumbai, Himalaya Publication House.
3. HPS Rana(2009), Health Economics, New Delhi, Alfa Publications.
4. Jay Battacharya, Timothy Hyde, and Peter Tu,(2014), Health Economics, 1st Edition, Palgrave Macmillan.
5. Jonathan Gruber(2012)Health Care Reform: What It Is, Why It's Necessary, How It Works.
6. Kotreshwar, G(2016) Risk Management and Derivatives, Mumbai, Himalaya Publishing House.
7. Krishnamurthy, G R et.al. (2008). *Indian Health Scenario*, Serials Publications New Delhi
8. Mcpake B. and Normand C, (2013), *Health Economics:An international perspective*, New York, Routledge.
9. Rajiv Dasgupta (2010) Child health inequity in India. In S. Bhattacharya, S. Messenger & C. Overy (ed) Social determinants of health, Orient Blackswan
10. Rout, HS & Panda PS(2007),Health Economics in India , New Century Publications.
11. National Health Accounts India (2004-05), [http://www.whoindia.org/linkFiles/Health\\_Finance\\_National\\_Health\\_accounts\\_2004-05.pdf](http://www.whoindia.org/linkFiles/Health_Finance_National_Health_accounts_2004-05.pdf)
12. Henderson J.W.(2001), *Health economics and policy*, South Western, Thomson Learning .

**II B.Sc. : III SEMESTER – ECONOMICS**  
**Title of the Course: G 513.3 : MONETARY ECONOMICS**  
**6 hours per week: Total hours: 65**

**LEARNING OBJECTIVES:**

- To acquaint the students the basic concepts and principles of monetary economics.
- To make the students understand the working of the banking system and its functions.

**LEARNING OUTCOME:**

- Students will be able to:
- Understand origin and development of money.
- Obtain the knowledge and understanding of the theoretical basis for money circulation, monetary policy, mechanisms of money creation.
- Be informative about different theories of value of money.
- Understand the concept of value of money and its determination, working of monetary economy, banking system, money and capital markets, international financial institutions and their relationship with India.
- Informative about currencies and exchange values of different countries currencies.
- Understand the role of central bank of the country and its functioning.

**COURSE CONTENTS:**

**MODULE I: NATURE AND FUNCTIONS OF MONEY**

**- 08 Hours**

Money – Meaning, Functions and Classification – Money and Near Money Assets – Principles and Methods of Note Issue – Supply of Money and Determinants Of The Supply Of Money - Measures of Supply of Money–  $M_1$ ,  $M_2$ ,  $M_3$  and  $M_4$  - High-Powered Money - New Series of Broad Money - Velocity of Circulation of Money

**MODULE II: VALUE OF MONEY**

**-12 Hours**

Meaning - Internal Value of Money – Index Numbers - Meaning – Steps in the Construction of Index Numbers – Difficulties and Uses. Construction of index number in India- Quantity Theory of Money - Cash Transaction and Cash Balance Approaches. Milton Friedman's Quantity Theory of Money- Liquidity Theory of Money- Tobin's Theory of money

**MODULE III : INFLATION AND DEFLATION****-10 Hours**

Definition of Inflation - Classification of Inflation - Causes - Types of inflation - Demand Pull Inflation, Cost-Push inflation, Mark- up inflation - Effect of inflation- Inflationary Gap – Phillips curve, the trade- off between inflation and unemployment - Deflation- meaning, causes and Effects. Concept of Stagflation

**MODULE IV: COMMERCIAL BANKING AND CENTRAL BANKING****-15 Hours**

Meaning and types of Banks – Commercial Banks - Functions– Balance Sheet of a commercial Bank- Investment Policy - Meaning and Process of Credit Creation- Universal Banking – merits and De-merits , E- Banking – Merits and de-merits – , ATM, Credit card, Debit Card, Money Transfer Methods – Cheque, Draft, RTGS, EFT , NEFT, SWIFT (Society for Worldwide Inter- bank Financial Telecommunication) -: Central Bank - Functions – Credit Control Methods –Quantitative Methods: Bank Rate Policy- Cash Reserve Ratio-Open Market Operations- Selective Methods- Meaning and objectives and limitations of Monetary Policy

**MODULE V: FINANCIAL SYSTEM AND MARKETS (WITH SPECIAL REFERENCE TO INDIA)****-10 Hours**

Financial System - Meaning – Constituents - Functions – Money Market –Money Market Players ( Structure) - Functions –Capital Market – Capital Market Instruments – Functions. SEBI – Objectives and Functions.

**MODULE VI: INTERNATIONAL MONETARY INSTITUTIONS****-10 Hours**

International Monetary Fund - objectives - functions - World Bank - objectives - functions - BRICS Bank - Euro market, International money market, International capital market, Bond market, Equity investments, GDR, ADR, Eurobonds etc.

**BOOKS FOR REFERENCES:**

1. Avadani, V.A(2011)*Financial Services in India*, New Delhi, Himalaya Publishing House.
2. Bhole, L.M. and JintendraMahakud(2009)*Financial Institutions and Markets: Structure, Growth and Innovations*, 5<sup>th</sup> Ed, New Delhi, Tata McGraw Hill.
3. Cauvery R, Kruparani N, Nayak UK Sudha, Manimekalaica(2013), *Monetary economics*, New Delhi, S Chand and Co Pvt Ltd.
4. E Gardon& K Natarajan (2010)*Banking Theory, Law and Practice*, 22<sup>nd</sup> Ed, New Delhi, Himalaya Publishing House.



5. Gurusamy, S(2009)*Financial Markets and Institutions* 3<sup>rd</sup> Ed, Chennai, McGraw Hill.
6. Jhingan, M.L(2009) Money, Banking, International Trade and Public Finance 9<sup>th</sup> Ed, Delhi, Vrinda Publications.
7. Jhingan, M.L(2014), Monetary economics, 7<sup>th</sup> Ed, New Delhi, Vrinda Publications Pvt Ltd.
8. Jhingan, M.L.(2011)Monetary Economics, 7<sup>th</sup> Ed, Delhi, Vrinda Publications.
9. Khan, M.Y (2013) Financial Services, 7<sup>th</sup> Ed, New Delhi, Tata McGraw Hill.
10. Mouis.D(1990) International Finance - The Markets & Financial Management Of Multinational Business, McGraw Hill.
11. Paul, R.R. (2011) Monetary Economics, 4<sup>th</sup> Ed, New Delhi, Kalyani Publishers.
12. RanaGrish (2013) Financial Institutions and markets, Horizon press, New Delhi.

**III SEMESTER B.Sc. : Economics Elective Course :**  
**Title of the Course: G 513.3E : INDIAN ECONOMY**  
**2 hours per week (Total: 30 hours)**

**LEARNING OBJECTIVES:**

- To familiarize the students on demographic features and issues of India.
- To provide them an insight into the basic problems of the Indian economy and strengthen their understanding.
- To acquaint the students with the performance of different sectors of the Indian economy and the policy framework governing them.

**LEARNING OUTCOME:**

- Students will be informative about:
- The nature of Indian Economy, GDP, demographic profile, natural resources.
- Informative about all the three sectors and sectoral reforms, economic planning and steps taken for development of Indian Economy.
- Students will be knowledgeable about fundamental problems of Indian economy.
- Be informative about various initiatives of the Government of India to irradiate poverty and provide employment.
- Be aware about reforms of different sectors of Indian economy.
- Students will understand the importance of different institution like NITI Aayog and Panchayath Raj in India.

**MODULE I: HUMAN RESOURCE**

**-08 Hours**

Theory of Demographic Transition- Broad Features of Indian Population; Population Growth- Causes, Effects, Rural-urban migration; Urbanization and civic amenities; National Population Policy

**MODULE II : SELECT ECONOMIC PROBLEMS**

**-10 Hours**

Causes and consequences of Poverty , Unemployment, Income inequality , Malnutrition, Infant and Maternity Mortality in India- Food Problem of India , Problem of Aging , Current Poverty and unemployment Eradication Schemes.

**MODULE III: ECONOMIC REFORMS IN INDIA**

**-12 Hours**

Economic Crisis of 1991 – Nature and Causes, Changing Structural Characteristics of Indian Economy – Major Reforms Since 1991 related to Financial Sector, Transport Sector, Trade Sector, Fiscal Sector, Innovations in Banking Sector, Inclusive Growth, Special Economic zones, Micro Finance , Panchayath Raj System in India, Goods and Services Tax in India, Niti Ayog.

**BOOKS FOR REFERENCE:**

1. Agarwal, A.N(2014): *Indian Economy : Problems of Development and Planning*, 39<sup>th</sup> Ed, New Delhi, Wishwa Prakashan
2. Agrawal A.N and Agarwal MK(2017) : *Indian Economy, Problem and development and planning*, 42<sup>nd</sup> Ed, London, New Age International Pvt Ltd Publishers.
3. Dhingra, I.C(2012): *The Indian Economy: Environment and Policy*, 27<sup>th</sup> Ed, New Delhi, Sultan Chand & Sons.
4. Mahajan, Ashwani and Gaurav Dutt, 2016: *Indian Economy*, New Delhi, 72<sup>nd</sup> Ed. New Delhi, S Chand & Company Ltd.
5. Misra, S.K. and V.K. Puri , (2016) *Indian Economy* 34<sup>th</sup> Ed., Mumbai, Himalaya Publishing House,
6. Sinha Yashwant, Srivastav Vinayk(2017): *Future of Indian Economy*, New Delhi, Rupa and Co.
7. *Government of India: Economic Survey* ( Annual ) New Delhi, Ministry of Finance,
8. R.B.I.: RBI Bulletins
9. Economic and Political Weekly, Various Issues.
10. Web-sites of Various Govt Departments and Institutions.

## **II B.Sc. : IV SEMESTER – ECONOMICS**

**Title of the Course: G513:4 INTERNATIONAL TRADE AND PUBLIC FINANCE**

**6 hours per week: Total hours: 65**

### **LEARNING OBJECTIVES:**

- The objective of the course is to expose students to the concept, importance and dynamics of international business and India's involvement with global business operations.
- The course also discusses theoretical foundations of international business to the extent these are relevant to understand the mechanics of global business operations and development.

### **LEARNING OUTCOME:**

- The student will be acquainted with economic concepts and models of international trade
- Explain the different concepts of terms of trade, the structure of BOP, disequilibrium in BOP, causes of disequilibrium, describe the foreign exchange rate and determine its equilibrium exchange rate and explain the objectives of IMF and IBRD.
- Understand the meaning of public finance; its nature, subject matter, explain the differences between public finance and private finance and differentiate between the public and private goods
- Classify the public revenue and its various sources; revenue receipts and non-revenue receipts, understand the tax and no-tax revenues, the causes of increasing public expenditure in the modern economies
- Explain the varying effects of public expenditure on the economy and role of public expenditure in a developing economy
- Understand the various sources of government borrowing and the reasons behind the growing public debt, describe how the debt is repaid, the role of public debt in developing countries, explain the concept of debt trap.

### **COURSE CONTENTS:**

#### **MODULE I: NATURE OF INTERNATIONAL TRADE**

**(10 hours)**

International Trade – Nature of International Trade – Bases of International trade - Distinction between International and Internal Trade – Significance of International Trade - National and foreign environments and their components - economic, cultural and political-legal environments; Global trading environment - recent

trends in world trade in goods and services - Regional Economic Co-operation: Forms of regional groupings; Integration efforts among countries in Europe, North America and Asia.

**MODULE-II: THEORIES OF INTERNATIONAL TRADE (10 hours)**

Theory of Absolute Cost Advantage – Theory of Comparative Cost Advantage – Factor Endowments Theory- The Stopler- Samuelson Theorem – The Rybezynski Theorem- Technological Gap Theory – Krugmans Theory

**MODULE III: TERMS OF TRADE AND TRADE POLICY (10 hours)**

Meaning – Concepts of Terms of Trade- Factors Determining Terms of Trade. Free Trade- Meaning, Arguments For and Against Free Trade; Protection - Meaning, arguments For and Against Protection; Quotas - Types and Effects; Tariffs - Types and Effects ; Exchange Control - Objectives and Methods; Dumping.

**MODULE IV : BALANCE OF PAYMENTS, DEVELOPMENTS AND ISSUES IN INTERNATIONAL BUSINESS ( 12 hours)**

Meaning of BOP and BOT – Components of BOP – Types and Causes of Disequilibrium – Methods of Correcting Disequilibrium - Outsourcing and its potentials for India; Strategic alliances, mergers and acquisitions; Role of IT in international business; International business and ecological considerations. Conceptual framework of MNCs, MNCs and host and home country relations, technology transfers-importance and types – MNCs in India. Economic Integration – Meaning, W.T.O. - Origin, Objectives, Structure- Agreements, Working of WTO and Ministerial Conferences.

**MODULE V: PRINCIPLES OF PUBLIC FINANCE (13 hours)**

Meaning of Public Finance– Differences between Public Finance and Private Finance – Distinction between Public Goods and Private Goods - The Principle of Maximum Social Advantage – Sources of Public Revenue – Taxes – Canons of Taxes – The Incidence, Shifting and Impact of Taxes - Classification of Taxes - Direct, Indirect, Progressive, Proportional and Regressive Taxes - Features – merits and demerits ; GST- Meaning and Features - Merits and Demerits - The Concept of Taxable Capacity - Public and Private Expenditure – Canons of Public Expenditure - Classification of

Public expenditure - Causes for Increasing Public Expenditure – Meaning, Public and Private Debt - Types - Methods of Public Debt Redemption.

**MODULE VI – FISCAL POLICY**

**(10 hours)**

BUDGET - Meaning - Types - Components of Budget and Concepts of Deficits in Budget;- Functional Classification of Budget - Impact of Budget on the Economy - Fiscal Policy - Objectives, Fiscal Policy and Economic Development - Deficit Financing - Meaning, Role of Deficit Financing - Adverse Effects of Deficit Financing.

## REFERENCES

1. Bhagwan, Visnoo and Vidya Bhushan (2001), Public Administartion, New Delhi: S. Chnad & Company Ltd.
2. Bhatia, H.L.2012, Public Finance (27th edition), New Delhi: vikas publishing house pvt.ltd.
3. Bo Sodersten and Geoffrey Reed 2009: International Economics 3<sup>rd</sup> Ed, Macmillan Press Ltd , New Delhi
4. Cherunilam, Francis (2009). International Economics,5<sup>th</sup> ED. Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
5. D.M. Mithani, 2013: International Economics 6<sup>th</sup> Ed, Himalaya Publishing House, Mumbai
6. Dalton, Hugh 1971, *Principles of Public Finance*, London : Routlegde Kegan.
7. Datt ,Ruddar and K.P.M Sundaram ,2008 .Indian Economy (57<sup>th</sup> Ed) , New Delhi: S.Chand and company ltd.
8. Jinghan, M.L.2009 : International Economics 6<sup>th</sup> Ed, Vrinda Publications , Delhi.
9. John, H. Daniels and Lee H. Radenbaugh," *International Business Environments and Operations*, Delhi: Pearson," (2001).
10. Justin, Paul, 2003. "*International Business*", Prentice Hall of India Ltd.,
11. Leki, R.K and Singh Joginder .2014, Public Finance New Delhi: Kalyani Publishers.
12. Michael R. Czinkota, et. al., "*International Business*", Fort forth: The Dryden Press, 2002.
13. Mithani ,D.M 2007 ,Fundamental of Public Economics Bombay :Vora and co-publishers ltd.
14. Musgrave ,Richard .A and Peggy B .Musgrave ,2011 Public Finance in theory and practice , New Delhi : Mc Graw-Hill international book company.
15. Paul R. Krugman and Maurice Obstfeld Maurice Obstfeld and Peter B. Kenen: 2004: The International Economy, 6<sup>th</sup> Ed ., Cambridge University press
16. Prest, A.R. 1960, *Public Finance in Theory and Practice* , London: ELBS and Weidenfeld and Nicholson.
17. Salvatore, Dominick 2009: International Economics 10th Ed, , Wiley
18. Singh, S.K .2010, Public Finance in theory and practice (6<sup>th</sup>Ed), New Delhi: S.Chand publishing.
19. Taylor, Philip E. 1968. *Economics of Public Finance* ( 3<sup>rd</sup> Ed), New Delhi: Oxford & IBH Publishing Co.
20. Tyagi, B.P. 2006, *Public Finance* ( 45<sup>th</sup> Ed), Meerut: Jai Paraksh Nath & Co.

**IV SEMESTER B.Sc.: Economics Elective Course:**  
**Title of the Course: G 513.4E: QUANTITATIVE ECONOMICS**  
**2 hours per week (Total: 30 hours)**

**LEARNING OBJECTIVES:**

- To acquaint the students with elementary knowledge of mathematical techniques in Economics.
- To train them to use mathematical techniques in economics.

**LEARNING OUTCOMES:**

- The Student will be able:
- To Apply some mathematical methods to economic theories
- Using calculus and differential equations in the economic models
- Use economic integration in applications

**MODULE I: LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS (10 hours)**

Linear Function - Demand Function – Supply Function – Market Equilibrium – Taxation – Subsidy – Elasticity of Demand- National Income Determination.

**MODULE II: NON- LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Quadratic Function – Simple and General Market Equilibrium – Production Possibility Curves – Power Function – Pareto's Distribution of Income – Logarithm and Anti-Logarithms- Exponential Function – Interest Compounding, Discounting

**MODULE III: DIFFERENTIAL AND INTEGRAL CALCULUS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Application of Derivatives in Economics – Cost – Average and Marginal Cost Relationship – Revenue – Average and Marginal Relationship –Equilibrium of the Firm under perfect competition, monopoly, price discrimination. Integral Calculus Definite Integration – Application to Economics – Consumers Surplus – Producers Surplus – Indefinite Integration – Cost and Revenue Analysis, National Income Analysis.



### **BOOKS FOR REFERENCES:**

1. Allen, R.G.D. , 2007. : *Mathematical Analysis for Economists*, Macmillan, Mumbai
2. Bhardwaj, R.S., 2007: *Mathematics for Economics and Business*, 2<sup>nd</sup> Ed. Excell Books, NewDelhi.
3. Chiang, A.C. ,1985: *Fundamental Methods of Mathematical Economics*, 3<sup>rd</sup> Ed. McGraw Hill Mumbai.
4. Dinwiddy, C., 1967, *Elementary Methods of Mathematical Economics*, Oxford University Press
5. Dowling, E.T, 2005: *Introduction to Mathematical Economics*, 2<sup>nd</sup> Ed. Schaum's Outline Series, MacGraw Hill, Mumbai.
6. Mehta & Madnani : 1992: . *Mathematics for Economists*, S. Chand, New Delhi.
7. Simon, Carl P. and Lawrence Blume , 2007 : *Mathematics for Economics*, Viva Books Pvt Ltd, NewDelhi.
8. Veerachamy, R., 2008 : *Quantitative Methods for Economists*, New Age International Publications, New Delhi.
9. Weber, Jean E. ,1982: *Mathematical Analysis* , Harper International.
10. Yamane, T., 2011: . *Mathematics for Economists*, 2<sup>nd</sup> Ed. PHI Learning, NewDelhi.

**III B.Sc. : V SEMESTER – ECONOMICS**  
**Title of the Course: G513:5a: MATHEMATICAL ECONOMICS**  
**5 hours per week (Total: 60 hours)**

**LEARNING OBJECTIVES:**

- To acquaint the students with elementary knowledge of mathematical techniques in Economics.
- To train them to use mathematical techniques in economics.

**LEARNING OUTCOMES:**

- The Student will be able:
- To Apply some mathematical methods to economic theories
- Using calculus and differential equations in the economic models
- Use economic integration in applications
- Using Optimization and linear programming in solving mathematical problems

***COURSE CONTENTS***

**MODULE I: LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS (10 hours)**

Linear Functions – Derivation- Two –point Formula – Simultaneous Equations- Demand Function – Supply Function – Market Equilibrium – Taxation – Subsidy – Break-even Analysis - National Income Determination.- Elasticity of Demand.

**MODULE II: NON- LINEAR FUNCTIONS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Quadratic Function - Market Equilibrium – Production Possibility Curves – Power Function – Pareto’s Distribution of Income –Logarithm and Anti- Logarithms- Exponential Function – Interest Compounding, Discounting – Depreciation - General Market Equilibrium, IS –LM Analysis.

**MODULE III: DIFFERENTIAL CALCULUS THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Maxima and Minima – Application of Derivatives in Economics – Cost – Average and Marginal Cost Relationship – Revenue – Average and Marginal Relationship –

Equilibrium of the Firm under Perfect Competition, Monopoly and Price Discrimination.

**MODULE IV: INTEGRAL CALCULUS AND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Integral Calculus – Indefinite and Definite Integration – Application to Economics – Indefinite Integration- Cost Analysis -Revenue Analysis – National Income Analysis – Definite Integration -Consumers Surplus – Producers Surplus

**MODULE V: MATRIX ALGEBRA AND THEIR APPLICATION IN ECONOMIC ANALYSIS. (10 hours)**

Concept, Types, Operations: Addition, Subtraction, Multiplication, Inverse. Cramer's Rule, Matrix Inversion Method, Solving Market Equilibrium – Input Output Analysis.

**MODULE VI: LINEAR PROGRAMMING AND THEIR APPLICATION IN ECONOMIC ANALYSIS (10 hours)**

Basic Concept; Formulation of a LP Problem; Nature of Feasible, Basic and Optimal Solutions; Solution of a LP Problem through Graphical Method, Application to Economic Analysis.

### **BOOKS FOR REFERENCES:**

1. Allen, R.G.D. , 2007. : *Mathematical Analysis for Economists*, Macmillan, Mumbai
2. Bhardwaj, R.S., 2007: *Mathematics for Economics and Business*, 2<sup>nd</sup> Ed. Excell Books, NewDelhi.
3. Chiang, A.C. ,1985: *Fundamental Methods of Mathematical Economics*, 3<sup>rd</sup> Ed. McGraw Hill Mumbai.
4. Dinwiddy, C., 1967, *Elementary Methods of Mathematical Economics*, Oxford University Press
5. Dowling, E.T, 2005: *Introduction to Mathematical Economics*, 2<sup>nd</sup> Ed. Schaum's Outline Series, MacGraw Hill, Mumbai.
6. Halden, K. and A.W. Pearson, ( 2002): *Introductory Mathematics for Economics and Business*, Macmillan Press Ltd, Delhi.
7. Mehta & Madnani : 1992: . *Mathematics for Economists*, S. Chand, New Delhi.
8. Simon, Carl P. and Lawrence Blume , 2007 : *Mathematics for Economics*, Viva Books Pvt Ltd, NewDelhi.
9. Veerachamy, R., 2008 : *Quantitative Methods for Economists*, New Age International Publications, New Delhi.
10. Weber, Jean E. ,1982: *Mathematical Analysis* , Harper International.
11. Yamane, T. , 2011: . *Mathematics for Economists*, 2<sup>nd</sup> Ed. PHI Learning, New Delhi.

### **III B.Sc. : V SEMESTER – ECONOMICS**

**Title of the Course: G 513. 5b: DEVELOPMENT ECONOMICS**

**5 hours per week: Total hours: 60**

#### **LEARNING OBJECTIVES:**

- To learn the basic concepts of growth and development
- To know how the development process is made possible.

#### **LEARNING OUTCOMES**

- To understand the basic problems of different countries economy.
- To know the different model adopted by the various countries.
- To select appropriate model for the development and growth of the countries.

#### **COURSE CONTENTS**

##### **MODULE I: CONCEPT OF GROWTH AND DEVELOPMENT**

**-10 Hours**

Chronology of economic development - Distinction between Economic Growth and Economic Development – Modern Version of Economic Development-Development as Freedom- Economic Progress and Economic welfare- Measurement of Economic Development - Gross National Product - Per Capita Income – Comparative Concept – Economic Welfare Criteria- Standard of Living Criteria- Physical Quality Life Index – Human Poverty Index - Human Development Index – Inequality-Adjusted Human Development Index- Gender Development Index- Gender Inequality Index- Multidimensional Poverty Index – Green Accounting – Gross Happiness Index - Mathematical calculations related to Indexes-Determinants of Economic Development- Evils of Economic Development – Sustainable development – Meaning, Objectives – Economic Growth and Income Distribution: The Kuznet's Hypothesis.

##### **MODULE II: DEVELOPMENT MODELS**

**-10 Hours**

Classical theory of economic development – Adam Smith's Theory, David Ricardo's Theory - T. R Malthus, J. S Mill, Karl Marx and Schumpeterian Theory of Economic Development –theory of development Balanced and Unbalanced Growth Theories - Theory of Big Push – Rostow's Stages of economic growth- Dualistic theories – social, technological and financial dualism - Myrdal's Theory of Circular Causation – Nelson's Low level Equilibrium Trap - Leibenstein's Theory of Critical Minimum Trap – Role of state in Economic development.

**MODULE III:GROWTH MODELS****-10 Hours**

Neo-Classical growth models - Swan's Growth Model, Harrod – Domar Model, Solow's model of long-run growth, Growth models of Meade ,Kaldor Model of Income Distribution and Growth, Passinetti Model of Profit and Growth, The models of technical change, Steady state growth- Feldman model of Growth - Ranis and Fei Model, Jorgenson's Model, Two Gap Model, Romar's Endogenous Growth Model- Mathematical problems related to growth models.

**MODULE IV : CAPITAL AND ECONOMIC DEVELOPMENT****-10 Hours**

Role of Capital - COR, ICOR- Input-Output Analysis – Cost- Benefit Analysis- Shadow Accounting Prices - Capital formation – Importance of capital formation- Process of capital formation- Causes for low capital formation - Sources of Capital Formation - Domestic and External Sources – Technology and Economic Development - Capital Budgeting - Meaning - Objectives – Steps – Techniques – Pay- Back Period- Profitability Index - Average Rate of Return Method - Net – Present Value Method – Internal Rate of Return – Mathematical Problems Related to Techniques of Capital Budgeting.

**MODULE V: HUMAN RESOURCE DEVELOPMENT****-10 Hours**

Population as Growth Promoting and Growth Retarding Factor - Theory of Demographic Transition – Optimum theory of population- Human Capital: Significance, Composition- Problems of Human Capital Formation – Criteria for investment in Human Capital- Disguised Unemployment as a source of Capital Formation - Need for Manpower Planning – Imbalance between Manpower Demand and Manpower Supply – Decentralised Strategy for Manpower Planning -Theories of Nurkse and Lewis- Man - Power Planning - Strategies for Man Power Planning – Harris and Todaro on Migration and Development.

**MODULE VI: SECTORAL ASPECTS OF DEVELOPMENT****-10 Hours**

Nature and scope of agricultural economics- Nature of agricultural production as distinct from industry - Role of agriculture in economic development; Efficiency and productivity in agriculture – commercialisation and Modernisation of agriculture - New technology and sustainable agriculture – Mellor's Model of agricultural development – Schultz's Transformation of Traditional agriculture -Rationale and pattern of industrialization in developing countries; Role of Industry in economic Development - The choice of techniques and appropriate technology and employment; Terms of trade between agriculture and non-agricultural sectors.

### **BOOKS FOR REFERENCE:**

1. Agarwal, A.N(2014)*Indian Economy : Problems of Development and Planning*,39<sup>th</sup> Ed, New Delhi, WishwaPrakashan.
2. Agrawal A.N and AgarwalMK(2017) *Indian Economy, Problem and development and planning*, 42<sup>nd</sup> Ed, London, New Age International Pvt Ltd Publishers.
3. Dhingra, I.C(2012)*The Indian Economy: Environment and Policy*, 27<sup>th</sup> Ed, New Delhi, Sultan Chand & Sons.
4. I.J. Ahluwalia and I.M.D. Little (1999)*India's Economic Reforms and Development*, New Delhi, OUP.
5. Jalan ,Bimal,(2004), *The Indian Economy:Problems and Prospects*, New Delhi, Penguinm.
6. Lekhi, R.K and JoginderSingh(2015) *Agricultural Economics*, Ludhiana, Kalyani Publishers.
7. Mahajan, Ashwani and GauravDutt(2013) *Indian Economy*, New Delhi, 68<sup>th</sup> Ed. S. Chand & Company Ltd.
8. Mahajan, Ashwani and GauravDutt, 2016: *Indian Economy*, New Delhi, 72<sup>nd</sup> Ed. New Delhi, S Chand & Company Ltd.
9. Misra, S.K. and V.K. Puri (2012)*Indian Economy 30<sup>th</sup> Ed.*, New Delhi, Himalaya Publishing House.
10. Misra, S.K. and V.K. Puri , (2016) *Indian Economy 34<sup>th</sup> Ed.*, Mumbai, Himalaya Publishing House.
11. SinhaYashwant, SrivastavVinayk(2017) *Future of Indian Economy*, New Delhi, Rupa and Co.
12. *Government of India: Economic Survey*( Annual ) New Delhi, Ministry of Finance.
13. R.B.I.: RBI Bulletins.
14. *Economic and Political Weekly*, Various Issues.
15. Web-sites of Various Govt Departments and Institutions.

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**III B.Sc. : VI SEMESTER – ECONOMICS**  
**Title of the Course: G 513.6a: INDIAN ECONOMICS**  
**5 hours per week: Total hours: 60**

**LEARNING OBJECTIVES:**

- To enable students to have an understanding of the important issues and problems of the Indian Economy.
- To make the students understand the role of various economic policies in promoting the development of Indian Economy.
- To enable students to learn critically, discuss and debate current economic issues on the basis of latest policy documents and trends.

**LEARNING OUTCOME:**

- It will result in comprehensive understanding of Indian Economy
- Student will be able to understand govt policies and programs
- It helps in developing understanding of the students related to different sectors of Indian Economy
- After studying the structure aspects of Indian Economy, students will be exposed to economic reforms in India and problems of Indian economy.
- Students will be able to understand how planning and infrastructure support can develop an economy

**COURSE CONTENTS**

**MODULE I: NATURE OF THE INDIAN ECONOMY**

**-10 Hours**

Economic Crisis of 1991- Nature and Causes - Basic Features of Indian Economy - GDP of India – Trends, Composition and Sectoral Changes in Indian Economy - Demographic Profile - Occupational Structure- - Problem of Overpopulation- Causes for and Effects of Population Growth - Population Policy

**MODULE II: SELECT ECONOMIC PROBLEMS OF INDIA**

**-10 Hours**

Poverty: Concept of Poverty in India, Poverty Line, Causes of Poverty. unemployment in India, Measurement of Unemployment, Causes of Unemployment in India, Current Employment Generation and Poverty Alleviation Programmes in India. Inequality - Extent Causes and Measures, Malnutrition: Extent, Nature and Causes, Food Problem and Food Security Infant and Maternal Mortality.



**MODULE III : AGRICULTURE AND DEVELOPMENT****-10 Hours**

Nature of Indian Agriculture; Agricultural Productivity ; Land Reforms; Agricultural Credit; Micro Finance; Kisan Credit Card , Agricultural Marketing; Agricultural Policy; Impact of Globalisation on Indian Agriculture - Concept of Sustainable Agricultural Development

**MODULE IV: INDUSTRY AND DEVELOPMENT****-10 Hours**

Industrial Policy of 1991; Industrial Finance; MSMEs - Role, Problems and Government Measures for their Growth; Industrial Sector Reforms since 1991 – Disinvestment- Delicensing - Foreign Direct Investment –Foreign Capital; Industrial Sickness. SEZ - Concept and Role.

**MODULE V: REFORMS IN THE TERTIARY SECTOR****-10 Hours**

Significance and Growth of Service Sector in India; Changing Scenario of Banking Services in India; Financial Sector Reforms; Transport Sector Reforms; Trade Sector Reforms; Fiscal Sector Reforms;

**MODULE VI: INFRASTRUCTURE AND ECONOMIC PLANNING****-10 Hours**

Growth of Infrastructure since Independence ; Energy- Sources – Energy Crisis and Reforms; Communication in India; Education –Growth and Reforms; Health – Government Schemes – Objectives , Achievements and Failures of Economic Planning In India- NITI Ayog - Concept of Inclusive Growth, Self-Help Groups and Women Empowerment

### BOOKS FOR REFERENCE:

1. Agarwal, A.N(2014)*Indian Economy : Problems of Development and Planning*,39<sup>th</sup> Ed, New Delhi, WishwaPrakashan
2. Agrawal A.N and AgarwalMK(2017) *Indian Economy, Problem and development and planning*, 42<sup>nd</sup> Ed, London, New Age International Pvt Ltd Publishers.
3. Dhingra, I.C(2012)*The Indian Economy: Environment and Policy*, 27<sup>th</sup> Ed, New Delhi, Sultan Chand & Sons.
4. I.J. Ahluwalia and I.M.D. Little(1999)*India's Economic Reforms and Development*, New Delhi, OUP,
5. Lekhi, R.K and JoginderSingh(2015) *Agricultural Economics*, Ludhiana, Kalyani Publishers.
6. Mahajan, Ashwani and GauravDutt(2013) *Indian Economy*, New Delhi, 68<sup>th</sup> Ed. S. Chand & Company Ltd.
7. Mahajan, Ashwani and GauravDutt, 2016: *Indian Economy*, New Delhi, 72<sup>nd</sup> Ed. New Delhi, S Chand & Company Ltd.
8. Misra, S.K. and V.K. Puri (2012) *Indian Economy 30<sup>th</sup> Ed.*, New Delhi, Himalaya Publishing House.
9. Misra, S.K. and V.K. Puri , (2016) *Indian Economy 34<sup>th</sup> Ed.*, Mumbai, Himalaya Publishing House,
10. SinhaYashwant, SrivastavVinayk(2017) *Future of Indian Economy*, New Delhi, Rupa and Co.
11. *Government of India: Economic Survey ( Annual )* New Delhi, Ministry of Finance,
12. R.B.I.: RBI Bulletins ,
13. Economic and Political Weekly, Various Issues.
14. Web-sites of Various Govt Departments and Institutions.

### **III B.Sc. : VI SEMESTER – ECONOMICS**

#### **Title of the Course: G 513.6b: ECONOMETRICS**

**5 hours per week: Total hours: 60**

#### **LEARNING OBJECTIVES:**

- To equip the students with basic theory of econometrics and relevant applications of the methods.

#### **LEARNING OUTCOMES**

- To know the basic knowledge of managerial economics.
- To understand the dynamics of business.
- Helps the consumers and producers to take apt decisions.

#### **MODULE I: NATURE OF ECONOMETRICS**

**-10 Hours**

Nature, meaning and scope of econometrics, Relationship between Economic Theory, Statistics, Mathematics and Econometrics – Goals of Econometrics – Methodology of Econometrics – Two variable linear regression model — assumptions, estimation through OLS, properties of estimators — Mean and Variance of the Ordinary Least-squares Parameters -Finding Out Estimators Using Cramer's Rule - Gauss-Markov theorem - Measure of goodness of fit – Adjusted & Multiple  $R^2$  – The Sampling Distribution of the Least Squares Estimates – Mathematical Problems Related to Estimators Using Normal Equations and Cramer's Rule – Hypothesis – Type 1 and Type 2 Error - Standard Error Test, Z Test, Students t Test, F test and Chow test, chi-square test - Interpretation of Model – Practical's – using Excel and SPSS.

#### **MODULE II: REGRESSION ANALYSIS**

**-10 Hours**

Classical Linear Regression Model: Meaning, Assumption- The Assumption of Randomness, zero mean, constant variance and normality of the disturbance variable – Assumption of Homoscedasticity – Consequences of the Violation Of Homoscedasticity - Heteroscedasticity – Reasons, Tests – Mathematical Problems Related To Spearman's Rank Correlation , Goldfeld-Quandt & BPG - Generalized Least Square: Derivation from classical linear regression to GLS -Mean and Variance of Generalised least square – Difference Between OLS and GLS -Autocorrelation - Nature, Mean and Variance , tests – Mathematical problems related to Run ,Von – Neumann Ratio and Durbin – Watson test , consequences and remedial measures. Multiple Regression Model- Meaning,

Assumptions, Mean and Variance – Derivation of Normal Equations - General Linear Regression Model — Assumptions, estimation and properties of estimators. Multicollinearity— Nature, test, consequences and remedial measures – Practical's – using SPSS and AMOS

**MODULE III: NON – LINEAR EQUATIONS AND DUMMY VARIABLES - 10 Hours**

Estimation of non-linear equations and some specific functions like Parabolic, exponential, geometric, hyperbolic, modified exponential; geometry and logistic functions. Dummy variable — Testing structural stability of regression models. Dummy variable trap, Regression with dummy independent variables — ANOVA and ANCOVA – Dummy Variable Alternative to the Chow Test – Dummy Variable in Seasonal analysis – Mathematical Problems Related to Dummy variable.

**MODULE IV: DYNAMIC ECONOMETRIC AND SIMULTANEOUS EQUATIONS MODEL**

**-10 Hours**

Dynamic Econometric: Autoregressive and distributed lag models —Koyck's approach, partial adjustment and adaptive expectations model, instrumental variables , Problem of auto-correlation — Application; Almon approach to distributed-lag models, Introduction to Time Series Analysis. Simultaneous equations model: Nature of simultaneous equations, simultaneous equations bias and inconsistencies of OLS estimation – the identification problem, rules of identification, Indirect Least Square Methods (ILS) , Method of Two stage least squares(2SLS).

**MODULE V : GAME THEORY AND ITS APPLICATIONS -10 Hours**

The 2-person, Zero sum game – Nash Equilibrium – Prisoners' Dilemma - Significance and Limitations of Game Theory – Formation of Input output model and application in Economic analysis.

**MODULE VI: INTRODUCTION TO RESEARCH METHODOLOGY -10 Hours**

The Meaning of 'Research' – Specific Features of Research in Social Sciences as Opposed to Physical and Natural Sciences – Objectivity in Research - Basic Categories In Scientific Method – Facts – Concepts – Causality – Uncertainty – Probability. Steps in Research – Formulation of a Research problem – Guiding principles in the choice of a Research topic Concept , Features- Interpretative Paradigms of Qualitative Research – Strategies of Qualitative Enquiry – Methods of Qualitative Research – PRA and RRA Techniques- Compilation of Qualitative Data- Formatting and Processing of Qualitative Data – Analysis and Presentation of Qualitative Data

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