

Parvatibai Chowgule College of Arts and Science

(Autonomous)

Department of Economics

B.A. Economics Course Syllabi

PART B:

Important resolutions and recommendations of BOS that require the consideration / the approval of Academic Council:

1. Syllabi of B.A. courses shown in Table below and detailed in UG Appendix 1.
2. Renaming of the B.A. elective courses "Mathematical economics" as "Introduction to Operation Research for Economists" and the B.A. elective course "Industrial economics" as "Introduction to Industrial Economics".

Table: B.A. Courses in Economics Approved by BOS

Sr. No.	Course Code	Course Title	Nature of the Course	Course Credits
1	ECO-V.E-10	Introduction to Operations Research	Elective	4
2	ECO-V.E-11	Actuarial Economics	Elective	4
3	ECO-V.E.12	Microeconomic Analysis	Elective	4
4	ECO-VI.E-15	Introduction to Industrial Economics	Elective	4

Course Title: Introduction to Operations Research for Economists

Course Code: ECO-V.E-10

Marks: 100

Credits: 04

Course Objectives:

1. To equip students with mathematical tools and techniques frequently applied in different branches of economics.

Learning Outcome:

Upon completion of the course, students are expected to:

1. Grasp the essence of relatively advanced economic theories done through quantitative analysis.
2. Be able to present economic proposition in the language of mathematics whenever require and possible.
3. Be able to develop mathematical models in their own research work if requires.

Course duration:

Sixty lectures of one hour duration i.e. four lectures per week over a period of fifteen weeks of a semester.

SYLLABUS:

Unit 1: Linear Algebra (15 Hours)

Systems of equations; Matrices and determinants; Matrix inversion method and its uses.

Unit 2: Linear Programming (15 Hours)

Elements of Linear Programming; Solution to LPP: Graphical, Simplex and the Big M methods.

Unit 3: Transportation and Assignment Problems (15 Hours)

Initial allocation methods; Optimization methods.

Unit 4: Statistical Decision-Making (15 Hours)

Probability analysis; Decision Trees; Expected Value; Economic and commercial applications.

References:

1. Kanti sawrup et al, Operations Research , S Chand & sons, New Delhi, 2005
2. Tulsian P.C. , Pandey V., Quantitative Techniques, Pearson India, 2006.
3. Taha H., Operation Research: An Introduction, Pearson , 7th Edition 2006

Course Title: Actuarial Economics

Course Code: ECO-V.E-11

Marks: 100

Credit: 4

Course Objectives:

The objectives of the course include the following:

1. To provide tools for analysing insurance and insurance risks.
2. To develop expertise in students that is relevant for research and training in insurance companies.
3. To acquaint students to a wide range of decision making processes used for financial planning and management.

Learning Outcome:

On completing this course, the students will:

1. Gain expertise in actuarial field for critically analyzing financial consequences of risks.
2. Be able to analyze decision-making process in insurance, investment and financial planning.
3. Be able to find employment in actuarial and insurance businesses.

Course duration:

Sixty lectures of one hour duration i.e. four lectures per week over a period of fifteen weeks of a semester.

SYLLABUS

Unit 1: Introduction to Actuarial Economics (5 Hours)

Origin, nature and scope of Actuarial Economics – Its importance; Link between financial planning and risk management; Utility and risk preference.

Unit 2: Annuity and its Calculations (12 Hours)

Annuity: ordinary annuity, annuity due, deferred annuity; Perpetuity: present value of immediate perpetuity, present value of perpetuity due, differed perpetuity; annuity with frequency different from that with which interest is convertible; varying rates of interest; redemption of loan; average interest yield on the life fund.

Unit 3: Pricing (15 Hours)

Basic elements in computation of life insurance premium; premium calculation; formulae for calculation of net premium.

Unit 4: Mortality Tables

(14 Hours)

Probability theory in insurance; mortality table; types: select and ultimate tables; stages involved in construction of mortality table.

Unit 5: Product Design and Actuarial Profession (14 Hours)

Basic methodology and setting assumptions; product design; actuarial standards and regulations, role of IRDA.

References:**Mandatory:**

1. Mishra K.C. & Kumar C.S., *Elements of Actuarial Science*, Cengage Learning, Delhi.2009
2. Punit and Parik , *Bailout Economics* 2014
3. (etc. additional references)

Supplementary:

1. Booth, P.M. et al. , *Modern Actuarial Theory and Practice*, Chapman and Hall, London, 1999
2. Newton bowers et al. , *Actuarial Mathematics*, Society of Actuaries, (second edition), Illinois , 1997

Course Title: Microeconomics Analysis

Course Code: ECO-V.E-12

Marks: 100

Credits: 4

Course objective:

1. To study economic theories of distribution, general equilibrium, welfare and market failure.

Learning Outcome:

1. Upon completion of this course students will be able to understand the theories of distribution, general equilibrium, welfare and market failures.

Course duration:

Sixty lectures of one hour duration i.e. four lectures per week over a period of fifteen weeks of a semester.

SYLLABUS

Unit 1: Theory of Distribution Neo-classical approach (15 Hours)

Marginal productivity theory; Product exhaustion theorem; Elasticity of technical substitution, technical progress and factor shares; Theory of distribution in imperfect product and factor markets.

Unit 2: General Equilibrium (15 Hours)

Walrasian excess demand and input-output approaches to general equilibrium, existence, stability and uniqueness of equilibrium and general equilibrium, coalitions and monopolies; Production without consumption — one sector model, homogeneous functions, income distribution.

Unit 3: Welfare Economics (15 Hours)

Pigouvian welfare economics; Pareto optimal conditions; Value judgment; Social welfare function; Compensation principle; Inability to obtain optimum welfare — Imperfections, market failure, decreasing costs, uncertainty and non-existent and incomplete markets.

Unit 4: Market failure (15 Hours)

Causes of Market Failure, Instances of Market failure: Externalities, Asymmetric information, moral hazard, Market imperfections, Non existence of markets; Theory of Second Best — Arrow's impossibility theorem; Rawl's theory of justice, equity-efficiency trade off; Good Governance.

Mandatory Reading:

1. Rubinfeld D. and Pindyck R. Microeconomics, Pearson, 2013

References:

1. Gravelle, H and Ray Rees, *Microeconomics*, Pearson Education Limited, England. 2004
2. Hal R Varian , *Microeconomic Analysis*, W W Norton & Company, New York.2010
3. Mas-colell, A, Michael D. Wiston and Jerry G. Green (1995), *Microeconomics*, 3rd edition, Prentice Hall Longman, London. 1995
4. Sen, A. , *Microeconomic Theory*, OUP, New York1999
5. Stigler, G., *Microeconomics: Theory and Applications*, Oxford University Press, New Delhi. 1996
6. Varian, H. , *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi. 2004

Course Title: Introduction to Industrial Economics

Course Code: ECO-VI.E-15

Marks: 100

Credits: 04

Course objectives:

1. To introduce students to the concept of industrial economics and its significance.
2. To highlight the role of globalization in industrial development.
3. To understand the impact of industrial reforms and competition.

Learning outcomes:

1. Students will gain an understanding of industrial economics and its significance
2. Students will understand the issues confronting the industrial economy.
3. Student will be familiar with industrial structure and labour issues.

Course duration:

Sixty lectures of one hour duration i.e. four lectures per week over a period of fifteen weeks of a semester.

SYLLABUS

Unit 1: Introduction to Industrial economics and Theory of the Firm (15 Hours)

Meaning, scope, need and significance of industrial economics;

Size and Structure of firms: technological view of the firm; investment size; vertical integration; transaction cost.

Separation of ownership and control – implications.

Unit 2: Structure, Conduct and Performance (15 Hours)

Determinants of market structure; Price and non-price competition; product differentiation.

Unit 3: Industrial Policy and Reforms (15 Hours)

Industrial policy in a global economy; industrial policy for inclusive growth.

India's industrial policy pre and post globalization.

Unit 4: Regulatory Mechanism and Competition Framework (15 Hours)

Need for reforms in regulatory mechanisms; Competition Law and Policy; role of Competition Commission in India. Introduction to labour reforms.

References:

1. Addison J.T Schnabei C., *International Handbook Of Trade Unions*, Edward Edgar, 2003
2. Bhatia S.K , *Industrial relations and collective bargaining, Theory and practice*, deep and Deep Publications, New Delhi, 2006
3. Mamoria C.B &MamoriaS , *Dynamics of Industrial Relationd*,Himalaya Publishing House,Mumbai., 2005
4. SenRatna,(2003), *Industrial Relations In India*, Macdonald and Evans, G. Britain, 2003
5. VenkataRatnam, C.S., *Globalization and Labour- Management Relations: Dynamics of Changes*, Sage Publications/Response Books, New Delhi, 2001