SEMESTER -III

B.A (Hons) BUSINESS ECONOMICS

Category I

(B.A. Honours in Business Economics in three years)

DISCIPLINE SPECIFIC CORE COURSE – 7 (DSC-7): MICROECONOMICS-II

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Microeconomics-II (DSC 7)	4	3	1	0	Class 12	None

Learning Objectives

This course aims to provide to the student an understanding of:

- the concepts of a market structure and equilibrium in perfectly and imperfectly competitive market situations.
- the possible equilibria in factor markets
- equilibrium in all commodity and factor markets
- the concept of economic welfare and its properties.

Learning outcomes

By studying this course, the students will be able to:

- Identify different forms of market structure, their resource allocation and welfare implications.

- Express rational agent desires in a game theoretic framework.
- Analyse profit maximising strategies under different oligopoly models.
- Use a social welfare function to evaluate societal outcomes

SYLLABUS OF DSC-7

UNIT–I: Market Structure **(18 hours)**

Perfect Competition: Firm equilibrium in the short and long run. Short run supply curve for the firm and the market, long run industry supply; constant, increasing and decreasing cost industry; producer and consumer surplus. Monopoly: Profit Maximisation, multi-plant firm, monopoly power and its measurement, social costs of monopoly, price discrimination. Monopolistic Competition: product differentiation; equilibrium of the firm in the industry-with entry of new firms and with price competition, Comparisons. Oligopoly and Game Theory: Cournot model and reaction curves, Stackelberg's model, Bertrand model, Quantity leadership, Price leadership, Non collusive stable equilibrium,

Simultaneous quantity setting, Collusion, Cartels, Concepts of Game Theory: Dominant strategies and Nash Equilibrium, Mixed strategies, Prisoner's Dilemma.

UNIT – II: Factor Market **(10 hours)**

Factor pricing in the case of single and many variable factors, demand for labor in a product market with perfect competition and monopoly, monopsony, bilateral monopoly and role of labour unions. Economic rent and quasi rent.

UNIT – III: General Equilibrium **(9 hours)**

Equilibrium and efficiency under pure exchange and production; Edgeworth box; Pareto optimality conditions; market trade; Walras' law; existence of equilibrium and efficiency; Implications of the first and second welfare theorem.

UNIT – IV: Welfare **(8 hours)**

Social Welfare Function; welfare maximization, Fair allocation, Envy and equity, Arrow's Impossibility Theorem

Essential/recommended readings

1. Varian, H. R. (2020). Intermediate microeconomics: A modern approach. W. W. Norton.
2. Bernheim, B., Whinston, M. (2009). Microeconomics. Tata McGraw- Hill.
3. Snyder, C., Nicholson, W. (2010). Fundamentals of Microeconomics. Cengage Learning
4. Pindyck, Robert S. & Rubinfeld, Daniel L. (2017). Microeconomics. Pearson

Suggestive readings

1. Dr. Robert E. Hall and Dr. Marc Lieberman. (2009).Microeconomics - Principles and Applications. South Western Educational Publishing.
2. Bergstrom, T., Varian, H. (2014). Workouts in Intermediate Microeconomics. W. W. Norton.
3. Joseph E. Stiglitz and Carl E. Walsh. (2006). Principles of Microeconomics. W. W. Norton & Co.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE – 8 (DSC-8) MATHEMATICS FOR BUSINESS ECONOMICS - II

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Mathematics for Business Economics –II (DSC 8)	4	3	1	0	Class 12	None

Learning Objectives

This course aims to introduce to the student the understanding of

- real multivariate functions and their properties
- the optimisation conditions for real multivariate functions
- differential equations and their applications
- difference equations and applications

Learning outcomes

By studying this course, the students will able to:

- To be adept in the use of differential and integral calculus to examine the properties of functions used in economics and business
- To solve numerical problems of multivariable optimization and properties of the solutions.
- To model business and economic scenarios in mathematical terminology and to appreciate economic models by using formal mathematical methods.

SYLLABUS OF DSC-8

UNIT – I:Multivariable Functions (12 hours)

Geometric representations: graphs and level curves; differentiability: characterisations, properties with respect to various operations and applications; higher order derivatives: properties and applications; the implicit function theorem and application to comparative statics problems; homogeneous and homothetic functions: characterisations and applications

UNIT – II: Multivariable Optimization (15 hours)

Multivariate optimisation: Convex sets; geometric properties of functions: convex functions, their characterisations, properties and applications; further geometric properties of functions: quasiconvex functions, their characterisations, properties and applications; unconstrained optimisation: geometric characterisations, characterisations

using calculus and applications. Multivariate Optimization with constraints: Constrained optimisation with equality constraints: geometric characterisations, Lagrange characterisation using calculus and applications; properties of value function: envelope theorem and applications.

UNIT – III: Economic Dynamics -1 **(9 hours)**

First order differential equations, phase diagrams and stability.

UNIT – IV: Economic Dynamics -2 **(9 hours)**

First order difference equations, equilibrium and stability

Essential/recommended readings

1. Sydsaeter, K., Hammond, P. (2002). Mathematics for economic analysis. Pearson Educational.

Suggestive readings

1. Chiang, Alpha C., and Wainwright Kevin. Fundamental Methods of Mathematical Economics. Boston, Mass: McGraw-Hill/Irwin, 2005
2. Hoy, Michael, Livernois, John, McKenna, Chris, Rees, Ray and StengosThanasis (2011) Mathematics for Economics. Cambridge, Mass. : MIT Press

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DISCIPLINE SPECIFIC CORE COURSE – 9 (DSC-9): CORPORATE FINANCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Corporate Finance (DSC 9)	4	3	1	0	Class 12	None

Learning Objectives

This course aims to

- introduce the basic concepts of financial management and its objectives.
- provide an understanding of investment decisions and of working capital.
- introduce and discuss the issues in the cost of capital.
- examine the theories and analysis involved in financing decisions and dividend distribution.

Learning outcomes

By studying this course, students will be able to:

- To learn the role and objectives of financial management in business corporations.
- To acquire skills to analyse corporate behaviour during procurement and development of resources.
- To understand capital structure and discuss the factors that financial managers consider while determining a company's financing strategy
- To critically discuss the theories relating to dividends policies and cost of capital

SYLLABUS OF DSC-9

UNIT – I: Introduction **(6 hours)**

Nature and Scope of Financial Management. Traditional and Modern Approach to the concept of financial management. Functions of finance – Finance Decision, Investment Decision, Dividend Decision. Objectives of Financial Management - Profit Maximisation and Wealth Maximisation. Concept of Time Value of Money.

UNIT – II: Investment Decision **(15 hours)**

Capital Budgeting - Nature and meaning of capital budgeting; Types of decisions: - Accept-Reject, Replacement, Mutually Exclusive. Estimation of Relevant cash flows. Evaluation techniques - Accounting Rate of Return, Pay Back, Net Present Value, Internal Rate of Return, Profitability Index Method.

Concepts and Definition of working capital. Determining Financing Mix; Permanent and temporary working capital; Determinants of working capital; Computation of Working Capital.

UNIT – III: Cost of Capital (9 hours)

Concept and Measurement of Cost of Capital: Measurement of specific costs - Cost of debt:- perpetual debt and Redeemable debt; Cost of Preference Share; Cost of Equity Capital – Dividend valuation model and CAPM; Cost of Retained Earnings. Computation of Overall Cost of Capital based on book value weights and market value weights.

UNIT – IV: Financing Decision (15 hours)

Leverage Analysis - Operating, Financial, and Combined Leverage, Earning Before Interest and Tax (EBIT) – Earning Per Share (EPS) analysis, Indifference point. Capital structures theories - Net income approach; Net operating income approach; Modigliani-Miller (MM) approach. Factors affecting capital Structure.

Dividend Decision: Relevance and irrelevance of dividends. Residual theory of dividends; Modigliani and Miller hypothesis; Walter's model; Gordon's model. Factors affecting Dividend Policy.

Essential/recommended readings

1. Khan, M.Y., & Jain, P.K. Basic Financial Management. Tata McGraw Hill Education Private Limited.
2. Pandey,I.M. Financial Management. Vikas Publishing House Pvt. Ltd. New Delhi
3. Rustagi, R. P. Fundamentals of Financial Management, Taxmann publication(Pvt) Ltd,New Delhi.

Suggestive readings

1. Van Horne, J.C. Financial Management and Policy. Prentice Hall of India.
2. Levy, H. and Sarnat, M. Principles of Financial Management. Prentice Hall.
3. Brealey, Richard, A., & Myers, Stewart, C. Principles of Corporate Finance. Tata McGraw Hill Publishing Company Limited.
4. Chandra, Prasanna. Financial Management-Theory and Practice. Tata McGrawHill.

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DISCIPLINE SPECIFIC ELECTIVE COURSE 1 (DSE-1): INCOME TAX LAW AND PRACTICE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Income Tax Law and Practice (DSE 1)	4	3	1	0	Class 12	None

Learning Objectives

The course aims at

- Introducing basic definitions in Income Tax Act
- Computing taxable income under the heads Salaries and House Property
- Calculate Profits and Gains of Business or Profession, Capital Gains and Income from other sources
- Understand deductions from gross taxable income and filling of returns.

Learning outcomes

By studying this course, the students will be able to:

- To Understand the Process of determination of taxable income
- To apply the deductions to taxable income as per the latest provisions of Income-tax Act, 1961
- To Acquire the skill of Filling Basic Returns of Income Tax

SYLLABUS OF DSE-1

Unit 1: Introductory Concepts (3 hours)

Permanent Account Number (PAN), Assessment Year, Previous Year, Person, Assessee, Gross Total Income, Total income and its computation, Tax Rates, Residential status; Relationship between Residential Status and Incidence of Tax. Incomes Exempted under section 10.

Unit 2: Computation for "Salaries" and "Income from House Property" (15 hours)

Income under the head "Salaries": Meaning of Salary, basis of charge, Allowances, Perquisites, permissible deductions from salary income, Deduction under Section 80 C.

Income under the head "Income from House Property": Basis of charge, income from let out house property, income from self-occupied property.

Unit 3: Computation for 'Profits and Gains of Business or Profession', 'Capital Gains' and 'Income from other sources' (15 hours)

Profits and gains of business or profession: Basis of charge, important rules regarding assessment of PGBP, computation of Profits from Business or Profession, deductions expressly allowed, expenses expressly disallowed.

Capital gains: basis of charge, meaning of capital asset, cost of acquisition, improvement and indexation, exemptions for capital gains arising from transfer of Capital Assets, calculation of tax on short-term and long-term capital gains.

Income from other sources: basis of charge, dividend, winnings from lotteries, crossword puzzles, etc., interest on securities, advance money received for transfer of a capital asset, permissible deductions.

Unit 4: Computation of Total Income and Tax Liability (12 hours)

Computation of total income; Deductions from gross total income under section 80 C to 80 U; Rebates and reliefs; Set-off and carry forward of losses (Concept only), Concept of advance payment of Tax and Deduction of Tax at Source. Computation of Taxable Income and liability of Tax. e-Filing of Returns: ITR-1 (SAHAJ) and ITR-2

Essential/recommended readings

1. Ahuja, G. and Gupta, R. Simplified Approach to Income Tax. Flair Publications (P) Ltd.
2. Singhania, V.K. and Singhania, M. Students Guide to Income Tax. Taxmann Publications (P) Ltd.

Software to be used for teaching are:

1. 'Excel Utility' available at incometaxindiaefiling.gov.in
2. Vinod Kumar Singhania, e-filing of Income Tax Returns and Computation of Tax Taxmann Publication (P) Ltd, New Delhi. (Latest version)

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DISCIPLINE SPECIFIC ELECTIVE COURSE 2 (DSE-3): ENTREPRENEURSHIP

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Entrepreneurship (DSE 3)	4	3	1	0	Class 12	None

Learning Objectives

The course aims at:

- To introduce the concept of entrepreneurship and its role in the economy
- To launch an Entrepreneurial Venture and writing a business plan
- To identify and explore legal and financial requirements of a business
- To understand the role and creativity in sustainable Business

Learning outcomes

By studying this course, the students will be able to:

- To develop critical thinking, problem solving skills and entrepreneurial mind-set in students.
- To enhance the understanding of the entrepreneurial process from idea generation, to concept development and creation of the venture.
- To enable the understanding of the business models, legal aspects of enterprise and writing a business plan.
- To apprise students with ways to finance and scale up the business.

SYLLABUS OF DSE-2

Unit 1: Introduction to Entrepreneurship (9 hours)

Concept of Entrepreneurship; Attributes of Entrepreneur; Distinction between entrepreneur and manager; Concept of corporate entrepreneurship/ intrapreneurship; Concept of social entrepreneurship; Role of entrepreneurship for an economy; Understanding business model strategy; Legal forms of enterprise; case study discussion on entrepreneurs, intrapreneurs, business models

Unit 2: Launching Entrepreneurial Venture (12 hours)

Identification of opportunities and Idea generation and screening methods- Brainstorming, mind-mapping, story-telling, SCAMPER, attribute listing, focus group

interviews, customer feedback; Feasibility studies- Marketing, Financial, Technical, Socio-economic Feasibility; Writing Business Plan

Unit 3: Legal and Financial Aspects (12 hours)

Legal requirements of business (Basic concept and relevance of patents, copyrights, and trademark); Financing- Start-up phase financing, growth stage financing, Maturity-phase financing; angel investment and venture capital, other forms of external financing; case study discussion on financing a venture

Unit 4: Sustaining and Scaling Up (12 hours)

Keeping the entrepreneurial spirit alive- Challenges and remedies, Role of creativity and innovation, Barriers to entrepreneurship, Concept of sustainability, Ethical Perspectives; Introducing Shared Innovation into the Business Model; Evolution of CSR from Compliance to Sustainable Entrepreneurship; How to Design CSR Strategies that Optimize Impact for Business and Society

Essential/recommended readings

·1. Harvard Business Review Entrepreneur's Handbook: Everything You Need to Launch and Grow Your New Business

2. Hisrich, R. D. International entrepreneurship: starting, developing, and managing a global venture. Sage Publications.

3. Sharma, S., Starik, M., & Wuebker, R. Sustainability, innovation and entrepreneurship: introduction to the volume.

Additional References:

1. Blank, S., Andreessen, M., Hoffman, R., & Sahlman, W. A. (2018). HBR's 10 Must Reads on Entrepreneurship and Startups (featuring Bonus Article "Why the Lean Startup Changes Everything" by Steve Blank). Harvard Business Press.

2. Drucker, P. (2014). Innovation and entrepreneurship. Routledge.

3. Hisrich, R.D., Manimala, M.J., Peters, M.P., Shepherd, D.A.: Entrepreneurship, Tata McGraw Hill.

4. Kuratko, D.F., and Rao, T. V., Entrepreneurship: A South-Asian Perspective, Cengage.

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COMMON POOL OF GENERIC ELECTIVES (GE) COURSES OFFERED BY THE DEPARTMENTS

GENERIC ELECTIVES (GE-1): PRINCIPLES OF ECONOMICS

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Principles of Economics (GEC 1)	4	3	1	0	Class 12	None

Learning Objectives

This course aims

- To offer basic understanding of the basic principles of micro economics like problem of scarcity and choice, demand and supply, elasticity.
- To introduce students with basic consumer theory,
- To introduce students with production and cost concept
- to expose the student to the basic principles and concepts in Macroeconomic variables -- GDP, consumption, savings, investment, money and credit etc.
- To learn measurement of national income and related aggregates; nominal and real income
- To determine actual and potential GDP
- To understand the functioning of money market

Learning outcomes

By studying this course, students will be able to:

- To understand the principles of economics of the modern economy.
- To understand the consumer theory, production, and costs etc.
- To understand the basic principles of macroeconomics, national income accounting and determination of GDP.
- To understand the functioning of the money market.

SYLLABUS OF GEC-1

Unit 1: Introduction **(6 hours)**

Problem of scarcity and choice: scarcity, choice and opportunity cost; production possibility frontier; economic systems.

Demand and supply: law of demand, determinants of demand, shifts of demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shifts of supply versus movements along a supply curve, market supply, market equilibrium.

Applications of demand and supply: price rationing, price floors, consumer surplus, producer surplus.Elasticity: price elasticity of demand, calculating elasticity, determinants of price elasticity, other elasticities.

Unit 2: Consumer Theory **(9 hours)**

Budget constraint, concept of utility, diminishing marginal utility, Diamond-water paradox, income and substitution effects; consumer choice: indifference curves, derivation of demand curve from indifference curve and budget constraint.

Unit 3: Production and Costs **(9 hours)**

Production: behaviour of profit maximising firms, production process, production functions, law of variable proportions, choice of technology, isoquant and isocost lines, cost minimizing equilibrium condition.

Costs: costs in the short run, costs in the long run, revenue and profit maximizations, minimizing losses, short run industry supply curve, economies and diseconomies of scale, long run adjustments.

Unit 4: Introduction to Macroeconomics **(6 hours)**

What is macroeconomics? Macroeconomic issues in an economy.

Unit 5: National Income Accounting **(6 hours)**

Concepts of GDP Aggregates and National Income; measurement of national income and related aggregates; nominal and real income; GDP and welfare and the limitations of the GDP concept.

Unit 6: Determination of GDP **(6 hours)**

Actual and potential GDP; aggregate expenditure; consumption function; investment function; equilibrium GDP; concepts of MPS, APS, MPC, APC; autonomous expenditure; Concept of multiplier.

Unit 7: **Money and Credit** **(3 hours)**

Money in a Modern Economy: Concept of money in a modern economy; monetary aggregates; demand for money; quantity theory of money; liquidity preference and rate of interest; money supply and credit creation; monetary policy

Essential/recommended readings

1. Case, K.E., Fair, R. C., and Oster, S. E. (2017). Principles of Economics (12th Ed.). Pearson.
2. Dornbusch, R., Fischer, S. and Startz. R. Macroeconomics (11th Edition). McGraw-Hill.
3. Mankiw, N.G. (2021). Principles of Economics, (9th Edition). Cengage Learning.
4. Acemoglu, D., Laibson, D., List J.A. (2016), Economics, Pearson

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

GENERIC ELECTIVES (GE-3): LEGAL ENVIRONMENT OF BUSINESS

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Legal Environment of Business (GEC 3)	4	3	1	0	Class 12	None

Learning Objectives

The course intends:

- To familiarize the student with the concept and essentials of Indian Contract act which govern business for its efficient conduct and to apply them in real life situations.
- To explain the meaning, nature and incorporation of a company.
- To make students understand and apply the provisions of Sale of Goods Act and Consumer Protection Act.
- To recognize and articulate legal principles related to Limited Liability Partnership and Information Technology Act.

Learning outcomes

By studying this course, students will be able to:

- To understand the basic rules and provisions of Contract and Agreements.
- To know the provisions to Formation and functioning of company and LLP.
- To understand the significance and role of law of sale of goods act
- To have in- depth knowledge of Information Technology Act And legal framework of right to Privacy, Data Security and Data Protection.
- Apply the law correctly to different facts and in different contexts

SYLLABUS OF GEC-3

Unit 1: Indian Contract Act (12 hours)

Meaning and Essentials of a Contract; Valid, Void and Voidable Contract; Offer and Acceptance; Consideration; Capacity of Parties; Free Consent; Discharge of Contract and Remedies for Breach of a Contract.

Unit 2: Companies Act (12 hours)

Meaning and Nature of Company; Promotion and Incorporation of a Company; Memorandum of Association; Articles of Association; Misleading Prospectus and

remedies available to the parties; Board of Directors and their qualification, duties, powers. Company Meetings and Resolutions.

Unit 3: Sale of Goods Act and Consumer Protection Act (12 hours)

Essentials of a Contract of Sale; Sale and Agreement to Sell, Conditions and Warranties; Transfer of Title by Non-Owners; Doctrine of Caveat Emptor; Rights of Unpaid Seller.**Consumer Protection Act 2009**: Scope and Applicability of the Act. Rights of consumer. Procedure for complaints. Duties and power of Central Consumer Protection Authority.

Unit 4: Limited Liability Partnership Act and IT Act (9 hours)

Meaning and nature of LLP; LLP and Company; LLP Agreement, Partners and Designated Partners, Incorporation of LLP; Partners and their Relations, Extent and limitation of liability of LLP.

Information Technology Act 2000: Concept and role; Digital signature, Electronic governance, Attribution, Acknowledgement and dispatch of electronic records, Regulation of certifying authorities, Digital signatures certificates, Duties of subscribers, Penalties and adjudication, Appellate Tribunal , Offences.

Essential/recommended readings

1. Bansal, V & Arora, A. Corporate Laws. Vikas Publishing, House (P) Ltd. New Delhi.
2. Kuchhal M.C & Vivek K. Business Legislation for Management. VIKAS Publishing House (P) Ltd.
3. Kumar, A. Corporate Laws. International Book House (P) Ltd.
4. Bare Acts relating to the laws.

Suggestive readings

1. Chadha, R,. Chadha, S. Corporate Laws. Mayur Paperbacks. New Delhi.
2. Maheshwari & Maheshwari. Business Law. National Publishing House. New Delhi.
3. Singh, Avtar. The Principles of Mercantile Law. Eastern Book Company. Lucknow.
4. Tulsian, P.C. Business Law. Tata McGraw Hill. New Delhi.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

GENERIC ELECTIVES (GE-5): QUANTITATIVE TECHNIQUES IN

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Quantitative Techniques in Management (GEC 5)	4	3	1	0	Class 12	None

Learning Objectives

To apprise students:

- To understand the concepts, formulation and interpretation of linear programming methods and its application in diverse problems.
- To formulate and solve Transportation and Assignment problems
- To understand basic concept, construction of the Network diagram and Critical Path Analysis
- To introduce game theory and network analysis forms part of the course.

Learning outcomes

By studying this course, students will be able to:

- Identify and develop operational research models from the verbal description of the real system.
- Understand the mathematical tools that are needed to solve optimization problems.
- Develop critical thinking and use PERT and CPM techniques to improve decision making.

SYLLABUS OF GEC-5

UNIT – I: Introduction - Operations Research, Linear Programming (15 hours)

(i) Introduction to Operations Research, characteristics, Phases, Methodology, Applications and scope

(ii) Formulation of Linear Programming problems, Graphical Solutions (Special cases: Multiple optimal solution, infeasibility, unbounded solution); Simplex Method, Special cases, Big-M method and Two-phase method; Duality (emphasis on formulation & economic interpretation); Sensitivity Analysis. (Excel Solver application)

UNIT – II:Transportation and Assignment Problem (12 hours)

(i) Transportation Problem: Formulation, Solution by N.W. Corner Rule, Least Cost method, Vogel's Approximation Method (VAM), Modified Distribution Method; Special cases: Multiple Solutions, Maximization case, unbalanced case, prohibited routes.

(ii) Assignment Problem: Hungarian Method, Special cases: Multiple Solutions, Maximization case, Unbalanced case, Restrictions on assignment.

UNIT – III: Network Analysis (9 hours)

Basic Concept, Construction of the Network diagram, Critical Path Analysis, float and slack analysis (Total float, free float, independent float), probability consideration in PERT (Interface with Project Management open-source software)

UNIT – IV: Decision Theory (9 hours)

Decision making environment, Construction of Pay off Table, Opportunity Loss Table, Decision under uncertainty. Decision under Conflict: Game Theory, Two-person Zero-Sum games, Maximin Minimax Principle, Games without Saddle point - Mixed strategy, Dominance Rule.

Essential/recommended readings

1. Vohra, N.D., Quantitative Techniques in Management (5th ed.). Tata McGraw Hill
2. Swarup, K., Gupta, P.K. and Mohan, Man, Introduction to Management Science Operations Research (19th ed.). Sultan Chand & Sons.
3. Sharma, J.K., Operations Research: Theory and Applications (6th ed.). Trinity.
4. Taha, H.A., Operations Research: An Introduction (9th ed.). Pearson.

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GENERIC ELECTIVES (GE-7): ECONOMICS OF STARTUPS

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Economics of Startups (GEC 7)	4	3	1	0	Class 12	None

Learning Objectives

To apprise students:

- To give an overview of startups and its types that would help students to understand basics of starting up new ventures.
- To build and create a successful Business Plan
- To understand various Business models and learn startups
- To familiarize with central and state level institutions supporting small business entreprises.

Learning outcomes

By studying this course, students will be able to:

. · Understand the process and working of a startup.

· Identify the different ways in which entrepreneurs manifest in start-ups.

· Know how to create one's own business venture and the various factors that influence successful set-up and sustainable operations.

· Explore the funding and other institutions supporting small business units.

SYLLABUS OF GEC-7

UNIT – I: Startup, Generation & Experimentation (9 hours)

Concept of Startup, Role of digital technologies, Startup ecosystems, the startup movement in India; Generating a value proposition, how valuable are new ideas, Design thinking principles; Experimenting with the prototype, Introduction to lean start-ups, Lean startup principles, Learning and failing fast.

UNIT – II: Building the Business Plan (15 hours)

Beginning Considerations: Building a competitive advantage. The strategic management processes. Conducting a feasibility analysis. Forms of Business ownership. Franchising and entrepreneurship. Buying an existing business, marketing and financial considerations: Building a powerful marketing plan. E-commerce and Entrepreneur. Pricing strategies. Creating a successful financial plan. Choosing the right location and layout.

UNIT – III: Crafting business models and Lean Start-ups (12 hours)

Introduction to business models; Creating value propositions-conventional industry logic, value innovation logic; customer focused innovation; building and analysing business models; Business model canvas, Business Pitching.

UNIT – IV: Institutions Supporting Small Business Enterprises and Ethics(9 hours)

Central level institutions. State level institutions. Other agencies. Industry Associations. Class exercise- discussions on current government schemes supporting entrepreneurship and finding out which scheme will most suit the business plan devised by the student. Importance of Ethical Entrepreneurship, value of ethics to an entrepreneur.

Essential/recommended readings

1. Scarborough, N. M., Cornwall, J. R., & Zimmerer, T. (2016). Essentials of entrepreneurship and small business management. Boston. Pearson Publications.
2. Hisrich, R.D., Manimala, M.J., Peters, M.P., Shepherd, D.A., Entrepreneurship, Tata McGraw Hill.
3. Shukla, M.B., Entrepreneurship and Small Business Management. Kitab Mahal Publishers.

Suggestive readings

1. Hishrich, R.D. and Peters, M. Entrepreneurship. Irwin Publications.
2. Barringer, B.R. and Ireland, R. Duane. Entrepreneurship: Successfully launching new ventures. (6th Edition) Pearson
3. Kuratko, D.F., and Rao, T.V., Entrepreneurship: A South-Asian Perspective. Cengage Publications.
4. Shankar, R., Entrepreneurship: Theory and Practice. Tata McGraw Hill.
5. Kathleen, R Allen. Launching New Ventures: An Entrepreneurial Approach. Cengage Learning.
6. Fisher, Steve and Duane, Ja-Nae. The Startup Equation - A Visual Guidebook for Building Your Startup. Mc Graw Hill Education India Pvt. Ltd.

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REGISTRAR