

**SCHEME AND SYLLABUS**  
**FOR**  
**BACHELOR OF BUSINESS ADMINISTRATION (BBA)**  
*(Honours / Honours with Research)*  
*Second year*  
**(For University Teaching Department & Affiliated Institutes)**  
**(w.e.f. Session 2023-2024)**

**As per National Education Policy 2020**



**DEPARTMENT OF MANAGEMENT STUDIES**  
**J. C. BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY,**  
**YMCA, FARIDABAD (HARYANA)**

**SECOND YEAR****Semester - III**

<b>Paper no.</b>	<b>Title of Paper (s)</b>	<b>Credits</b>	<b>Marks</b>			<b>Code</b>
			<b>Internal</b>	<b>Practical</b>	<b>External</b>	
BBA/GN/301	Marketing Management	4	25	-	75	DSC
BBA/GN/302	Human Resource Management	4	25	-	75	DSC
BBA/GN/303	Financial Management	4	25	-	75	DSC
BBA/GN/304	Indian Financial System	4	25	-	75	MIC
BBA/GN/305	Business Ethics and Corporate Governance	3	25	-	75	MDC
AEC-102-N1	Communication, Mediation and Resolution	2	25	-	75	AEC
BBA/GN/306	Advanced Excel	3	25	75	-	SEC
	Total	24	175	75	450	

## SECOND YEAR

### Semester - IV

Paper no.	Title of Paper (s)	Credits	Marks			Code
			Internal	Practical	External	
BBA/GN/401	Fundamentals of International Business	4	25	-	75	DSC
BBA/GN/402	Sustainable Business Development	4	25	-	75	DSC
BBA/GN/403	Business Research Methods	4	25	-	75	DSC
BBA/GN/404	Business Research Lab	4	25	75	-	MIC
AEC-103-N3	Effective Corporate Communication (ECC)	2	25	-	75	AEC
VAC-110-N1	Environmental Pollution, Waste Management and Sanitation	2	25	-	75	VAC
	Total	20	150	75	375	

**Exit Option:** Any student opting for exit option after fourth semester will get **Undergraduate Diplomain Business Administration** provided, he/she completes 96 Credits of first four semesters including 4 credits of summer training report based on summer training of 4-6 weeks undertaken in industry/university. In addition, the summer internship report would be evaluated (100 External Marks) by external expert from panel approved by Department of Management Studies, J C Bose University of Science and Technology, YMCA, Faridabad. Furthermore, the credits of summer internship report would be included/mention in **the Undergraduate Diploma in Business Administration** as follow:

Course code	Nomenclature of the course	Category	Internal Marks	External Marks	Practical / Viva-Voce Marks	Total Marks	Credits
BBA/GN/405	Summer Internship	Internship	-		100*	100	4

**Note:** The student seeking admission in the fifth semester would have to undergo a compulsory 4-6 week summer training in industry after the fourth semester and credits for the same will be included in the fifth semester.

**Note:** Students who opt to exit after completion of the second year will be allowed to re-enter the degree program within three years and complete the degree program within the stipulated maximum period of seven years.

## **MARKETING MANAGEMENT**

**PAPER CODE: BBA/GN/301**

Total credits: 4  
External marks: 75  
Internal marks: 25

### **Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Understand the process of marketing by which companies create value for customers and capture value from customers in return.
2. Understand the significance of consumer behavior, segmentation, targeting and positioning.
3. Make the product and pricing strategies.
4. Make the distribution strategies, promotion strategies.

### **UNIT I**

Introduction to Marketing; difference between marketing and selling; core concepts of marketing; marketing mix; marketing process; marketing environment.

### **UNIT II**

Determinants of consumer behavior; consumer's purchase decision process (exclude industrial purchase decision process); market segmentation; target marketing; differentiation and positioning; marketing research; marketing information system.

### **UNIT III**

Product and product line decisions; branding decisions; packaging and labeling decisions; product life cycle concept; new product development; pricing decisions.

### **UNIT IV**

Distribution channels: - retailing, wholesaling, warehousing and physical distribution, promotion mix - personal selling, advertising, sales promotion, publicity, conceptual introduction to customer relationship marketing.

### **SUGGESTED READINGS:**

1. Kotler, Philip, Kevin Lane Keller, Abraham Koshy & Mithileshwar Jha. Marketing Management, Pearson Education, New Delhi.
2. Dhunna, Mukesh, Marketing Management, Text and Cases. Wisdom Publications, New Delhi.
3. Sakena, Rajan, Marketing Management, McGraw Hill, New Delhi.
4. Zikmund, William G. Marketing, Cengage Learning, New Delhi.
5. Panda, Tapan K. Marketing Management, Excel Books, New Delhi.

**Note: Only the latest editions of the above books are recommended.**

**HUMAN RESOURCE MANAGEMENT**  
**PAPER CODE: BBA/GN/302**

Total credits: 4  
External marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Understand the basics of human resource management.
2. Analyze the human resource challenges in present scenario.
3. Know the essentials of employing, maintaining, and promoting a motivated workforce.
4. Develop critical understanding of contemporary issues of human resource management.

**UNIT I**

Introduction - nature and scope of human resource management, HRM objectives and functions, HRM policies, HRM in a globally competitive environment; Strategic human resource management, HR outsourcing; Brief overview of HRIS.

**UNIT II**

Acquisition of Human Resource - Human resource planning; Job analysis and Job design; Recruitment - Concept and sources; Selection - Concept and process; Placement and induction; Job evaluation - concept & methods.

**UNIT III**

Training and Development - Concept and importance; Identifying training and development needs; Training methods and evaluation, designing training programs; Role-Specific and Competency Based Training; Management Development; Career Development and Succession planning.

**UNIT IV**

Performance Appraisal - nature, objectives, and importance; techniques of performance appraisal; potential appraisal and employee counselling; Compensation: concept and policies; fringe benefits; performance linked compensation. Balance Scorecard, Competency based HRM; Employee welfare; Social security; Grievance-handling; Industrial Disputes: causes and settlement machinery.

**SUGGESTED READINGS:**

1. Dessler, G. A Framework for Human Resource Management. Pearson Education.
2. DeCenzo, D. A., & Robbins, S. P. Personnel/Human Resource Management. Pearson Education.
3. Aswathapa, K. Human Resource Management: Text and Cases. Tata McGraw Hill Education.
4. Haldar, U., & Sarkar Juthika. Human Resource Management. Oxford University Press.
5. Rao, V. S. P. Human Resource Management. Cengage Learning India.
6. Chhabra, T. N. Human Resource Management. Dhanpat Rai & Co., Delhi.
7. Patttanayak, B. Human Resource Management. PHI Learning.

**Note:** Only the latest editions of the above books are recommended.

**FINANCIAL MANAGEMENT**  
**PAPER CODE: BBA/GN/303**

Total credits: 4  
External marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Understand the concept of financial management and various source of finance.
2. Analyze capital budgeting process and apply capital budgeting techniques for Business decisions.
3. Examine capital structure and cost of capital.
4. Critically examine various theories of dividend, identify, and analyse dividend policy; and suggest sound dividend policy.
5. Design working capital policy based on the assessment of financial requirements.

**UNIT I**

Nature, scope, and objectives of financial management, Finance decision, Functions and Responsibilities of Finance Manager. Sources of Finance: Different Sources of Finance including internal sources, external sources.

**UNIT II**

Time value of money, Capital Budgeting Process, Capital budgeting methods: Payback Period Method, Discounted Payback Period Method, Accounting Rate of Return, Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index.

**UNIT III**

Components of cost of capital, Method for calculating Cost of Equity, Cost of Retained Earnings, Cost of Debt and Cost of Preference Capital, Weighted Average Cost of Capital (WACC). Capital Structure- Theories of Capital Structure.

**UNIT IV**

Theories of dividend decision – Walter’s Model, Gordon’s Model, MM Approach, Forms of dividend payment, types of dividend policies and Determinants of Dividend policy. Concept of Working Capital, Operating Cycles, Working capital estimation.

**SUGGESTED READINGS:**

1. Chandra, P. Financial Management-Theory and Practice. Tata McGraw Hill Education, New Delhi.
2. Horne., J. C., & Wachowicz, J. M. Fundamentals of Financial Management, Prentice Hall, New Jersey.
3. Khan, M. Y., & Jain, P. K. Financial Management: Text and Problem. Tata McGraw Hill Education India, New Delhi.
4. Kothari, R. Financial Management: A Contemporary Approach. Sage Publications India Pvt. Ltd, New Delhi.
5. Pandey, I. M. Financial Management. Vikas Publications, New Delhi.
6. Rustagi, R. P. (Fundamentals of Financial Management. Taxmann Publication, New Delhi.
7. Ross, S. A., Westerfield, R. W., Jaffe, J., & Kakani, R. K. Corporate Finance. McGraw Hill Education, New York.
8. Sharma, S. K., & Zareen, R. Fundamentals of Financial Management. S. Chand Publishing, New Delhi.
9. Singh, P. Financial Management. Ane Books Pvt. Ltd, New Delhi.
10. Singh, J. K. Financial Management-Theory and Practice. Galgotia Publishing House, New Delhi.
11. Singh, S., & Kaur, R. Fundamentals of Financial Management. SCHOLAR Tech. Press,

New Delhi.

12. Tripathi, V. Basic Financial Management. Taxmann Publication, Delhi.

13. Srivastava, R., & Mishra, A. Financial Management. OUP India, New Delhi.

14. Study Material of CA Course (New) Intermediate Level Paper 8A: Financial Management.

**Note:** Only the latest editions of the above books are recommended.

## **INDIAN FINANCIAL SYSTEM**

**PAPER CODE: BBA/GN/304**

Total credits: 4  
External marks: 75  
Internal marks: 25

### **Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Understand the workings of various components of financial system in India.
2. Analyze the importance of a sound financial system for economic development of a country.
3. Evaluate the workings of different financial institutions.
4. Analyze the instruments available in the money market and capital market.

### **UNIT I**

Indian Financial System: Nature, structure, role and functions. Structure of Indian banking system, RBI- functions and working, Integrated ombudsman scheme, 2021 by RBI. Financial Institutions: Commercial banks, Banking and non-banking intermediaries, NABARD, Regional Rural Banks and Cooperative Banks, SIDBI.

### **UNIT II**

Banking Concepts –credit creation, E-Banking; NEFT, RTGS, SWIFT mechanism. Universal Banking, payment banks. Emergence of electronic payment system in India, NPCI. Money Market; Money market instruments; Call money, Treasury Bills, Commercial Bills, Certificate of deposit, Commercial Papers, Reforms and recent developments in money market.

### **UNIT III**

Capital Market: Capital Market instruments, Role of SEBI, Secondary market; trading and settlement; Primary market v/s Secondary Market. Mutual Funds; meaning and types. Reforms and recent developments in capital market.

### **UNIT IV**

Non-banking finance companies, Housing finance companies. Overview of financial Services: Merchant Banking, Leasing and Hire purchase, Factoring, Housing Finance, Venture Capital, Credit Rating. An overview of Fintech; Suptech.

### **SUGGESTED READINGS:**

1. Bhole L. M 'Financial institutions and Markets', Tata McGraw Hills.
2. Varshney and Mittal. Indian Financial System, Sultan Chand & Sons.
3. Bharati V. Pathak, 'The Indian financial system- Markets, Institutions and Services' Pearson Education.
4. John C. Hull, 'Risk Management and Financial Institutions", Tata McGraw Hills.
5. S. Gurusamy, 'Financial Markets and Institutions' 3rd edition, Tata McGraw Hills.
6. Khan M. Y. ' Indian Financial System', Tata McGraw Hills.
7. Gurusamy, —Financial Services and Systemll, McGraw Hill Education, March.

**Note:** Only the latest editions of the above books are recommended.



**BUSINESS ETHICS AND CORPORATE GOVERNANCE**  
**PAPER CODE: BBA/GN/305**

Total credits: 3  
External marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Explain the ethical conduct in business and its essence for management.
2. Analyze the value system in business.
3. Understand the basics of corporate governance and the emerging role of management.
4. Develop comprehensive understanding on corporate disclosure and the role of SEBI.

**UNIT I**

Ethics and Behavior, Ethical conduct in Business: Ethical Audits, Cost of being unethical, Ethics and social responsibility, Intellectual property rights like designs, patents, trademarks, copy rights.

**UNIT II**

Values–Concepts, values in Business, Types and Formation of Values, importance of value system, Values of Indian Managers; applications of moral values to the challenges of the organizations. Relationship between ethics and values.

**UNIT III**

Corporate Governance: Concept, corporate governance code, Profit maximization versus Corporate Social Responsibility, Corporate Social Reporting, Corporate Governance and the Role of Board (BOD).

**UNIT IV**

Legal aspects: Corporate Disclosure and Investor Protection in India, Guidelines on CSR Management, Corporate disclosure practices, SEBI codes.

**SUGGESTED READINGS:**

1. S.S. Iyer. Managing for Value, New Age International Publishers.
2. Laura P Hartman, Abha Chatterjee. Business Ethics, Tata McGraw Hill.
3. S.K. Bhatia. Business Ethics and Managerial Values, Deep & Deep Publications Pvt. Ltd.
4. Velasquez. Business Ethics - Concepts and Cases, Prentice Hall.
5. Reed Darryl. Corporate Governance, Economic Reforms & Development, Oxford.
6. Mathur U.C. Corporate Governance & Business Ethics, McMillan.

**Note:** Only the latest editions of the above books are recommended.

## **COMMUNICATION, MEDIATION AND RESOLUTION AEC-102-N1**

Total credits: 2  
External marks: 75  
Internal marks: 25

### **Course Objectives:**

- CO1: To familiarize the students with the process and barriers of communication.
- CO2: To enable the students develop critical thinking and identify logical fallacies.
- CO3: To help students in recognizing factors and applying strategies in conflict resolution.
- CO4: To inspire students in appreciating the role of mediation and find creative solutions.

### **UNIT-I**

**Communication and Barriers to Communication:** 7C's of Communication, Win-Win Communication, Strategies for Effective Communication, Zero-Sum; Reasons for Conflict; Communication Barriers.

### **UNIT-II**

**Critical Thinking and Cognitive Skills:** reason; analysis, synthesis, divide and rule; root-cause analysis; logic and logical fallacies.

Reasoning; Logic; Inductive and Deductive Reasoning; Logical fallacies: Ad hominem, straw man fallacy; bandwagon fallacy; hasty generalization; false dilemma; false dichotomy; Tu Quoque; circular reasoning and hasty generalization; Recognizing fallacies.

### **UNIT-III**

**Mediation and Conflict-Resolution:** Cognitive Skills and Critical thinking; Listening for key words, phrases and hints, Creative Communicating, Managing and celebrating Diversity, Adaptability and Negotiation; Dispute-resolution; arbitration; mediator's role; caucuses, third party, objectivity, impartiality, neutrality, offers, counter offers, questions, demands, and proposals, impasse, settlement. Brainstorming, Problem solving strategies, Stress management, Significance of Collaboration, Confronting challenges.

### **UNIT-IV**

**Mediation in Practice:** Exercises in role-playing and mediation and one case study assignment as directed by the teacher.

### **Course Outcomes:**

- CO1: The students will be familiarized with the process and barriers of communication.
- CO2: The students will be enabled to develop critical thinking and identify logical fallacies.
- CO3: The students will be able to recognize factors and apply strategies in conflict resolution.
- CO4: The students will be able to appreciate the role of mediation and find creative solutions.

### **SUGGESTED READINGS:**

1. Mangla Rajesh Kumar, Basics of Communication, Mediation and Resolution
2. Raman M. & Sharma S., Effective Communication Skills.
3. Phillips C.C., Conflict, Conflict Resolution and Mediation: Theory, Process and Practice

**ADVANCED EXCEL**  
**PAPER CODE: BBA/GN/306**

Total credits: 3  
Practical marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Visualize data for business decisions.
2. Evaluate and integrate appropriate information for business.
3. Apply mathematical and statistical functions for decision making.
4. Identify and organize data from multiple sources.

**UNIT I**

Creating a basic worksheet, managing worksheets, Formatting cells Viewing and printing worksheets, Insert, delete - cells, rows, columns. Sorting (basic, custom), filtering, grouping, ungrouping data, dealing with subtotals and grand totals. protecting cells.

**UNIT II**

Building basic formulas, Using a function in a formula, Math and statistical functions, Sum, Max, Min, Average, Count, Today, Now, Countif, CountA, CountBlank, Round, Roundup, Round. Financial functions Manipulating dates, times and text, VLOOKUP and HLOOKUP, Conditions in formulas.

**UNIT III**

Goal Seek function, descriptive statistics, PivotTables, Find trends in data, summarize data by using Sparklines, Data Validation.

**UNIT IV**

Create and modify macros, Create hyperlinks, Creating and managing charts like Column, Line, Pie, Bar, Area, Scatter, 3D, Pivot charts etc. Working with multiple sheets, hyperlinks, Creating Dashboards.

**SUGGESTED READINGS:**

1. Harvey G., Excel: All-in-One for Dummies. John Wiley & Sons.
2. Michael A. and Kusleika R., et al. Excel Bible. Wiley Press.
4. Winston W., Microsoft Excel 365 Data Analysis and Business Modeling by Microsoft Press.
5. Blackwood N., Advanced Excel Reporting for Management Accountants", Wiley press.

**Note:** Only the latest editions of the above books are recommended.

**FUNDAMENTALS OF INTERNATIONAL BUSINESS**  
**PAPER CODE: BBA/GN/401**

Total credits: 4  
External marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Understand the dynamics of international business and global perspective on trading system.
2. Analyze various approaches to decisions concerning international trade and investment.
3. Develop an understanding of risk involved and emerging issues in international business.
4. Evaluate the essentials of entering and competing in international markets.

**UNIT-I**

Types of international business; basic structure of international business environment; motives for international business; barriers to international business; risk in international business; basic techniques of risk management in international business.

**UNIT-II**

Foreign market entry modes; factors of country evaluation and selection; decisions concerning foreign direct and portfolio investment; control methods in international business.

**UNIT-III**

Basic foreign manufacturing and sourcing decisions; product and branding decisions for foreign markets; approaches to international pricing; foreign channel and logistical decisions.

**UNIT-IV**

Global trading and financial system – an overview; accounting differences across countries; cross cultural challenges in international business; international staffing and compensation decisions.

**SUGGESTED READINGS:**

1. Daniels, J.D., and H.L. Radebaugh, International Business: Environment and operations, Pearson Education, New Delhi
2. Hill, Charles W.L., International Business, Tata McGraw Hill, New Delhi
3. Sharan, V., International Business: Concept, Environment and Strategy, Pearson Education, New Delhi
4. Bennett, Roger, International Business, Pearson Education, New Delhi

**Note:** Only the latest editions of the above books are recommended.

**SUSTAINABLE BUSINESS DEVELOPMENT**  
**PAPER CODE: BBA/GN/402**

Total credits: 4  
External marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Understanding of the concept of sustainable development and the discourse associated with the same.
2. Understanding of the issues pertaining to sustainable businesses and the myriad perspectives pertaining to the role of business in sustainability.
3. Understanding of the business risks and opportunities created by the new global order and the need to adopt more sustainable practices along with understanding the challenges posed by sustainable development for companies and their associated responsibilities and the scope of their actions.
4. Understanding of the concepts of sustainability at the individual, organizational and societal level, with a special emphasis on the evolving role of business in society.
5. Understanding of the various sustainable business management practices.
6. Understanding of the international legal environment pertaining to sustainable business.

**UNIT I**

Introduction to Climate Change and Sustainable Development; Millennium Development Goals; Historical and Emerging Themes in Sustainable Business; Business Case for Sustainability

**UNIT II**

Sustainable Firm – Corporate Social and Environmental Sustainability; Redefining the Traditional Business Models; Sustainability and New Product Development; Sustainable Retail; Supply Chain Restructuring

**UNIT III**

Sustainable Business Management –Sustainability Accounting and Reporting; Triple Bottom Line Accounting; Carbon Accounting and Auditing for Business; Socially Responsible Human Resource Management; Socially Responsible Investing and Finance

**UNIT IV**

(Re)Transformation of Business – Sustainable Infrastructure; Re-working Transportation Networks; Energy Efficiency; Green Buildings. International Legal Environment of Sustainable Business – International Trade Laws; Climate Change Treaties and their Impact on Business

**SUGGESTED READINGS:**

1. McDonough, W., Braungart, M. (2002). *Cradle to Cradle: Remaking the Way We Make Things*. North Point Press
2. Kaplan, R., Norton, D. *The Balanced Scoreboard*. Harvard Business Review.
3. York University-Research Report No. 32/2010: *Global Warming: A Tragedy of the Commons*-Maebh O'Gorman
4. Blackburn, W. R. (2007). *The Sustainability Handbook: The Complete Management Guide to Achieving Social, Economic and Environmental Responsibility*. Environmental Law Institute.
5. Hoffmann, A. J., Woody, J. G. (2008). *Climate Change: What's Your Business Strategy?* Boston, MA: Harvard Business School Publishing.
6. Laszlo, C. (2005). *The Sustainable Company: How to Create Lasting Value through Social and Environmental Performance*. Island Press.
7. Rainey, D. L. (2010). *Sustainable Business Development: Inventing the future through Strategy, Innovation, and Leadership*. Cambridge University Press.
8. Wirtenberg, J., & Russell, William. G., & Lipsky, D. (2009). *The sustainable enterprise field book: when it all comes together*. AMACOM Division American Management Association.

9. Willard, B. (2005). *The Next Sustainability Wave: Building Boardroom Buy-in*. New Society Publishers.
10. Willard, B., & Elkington, J. (2002). *The New Sustainability Advantage: Seven Business Case Benefits of a Triple Bottom Line*. New Society Publishers.
11. Hardin, G (1968). The Tragedy of the Commons. *Science* 162, no. 3859: 1243-1248.

**Note:** Only the latest editions of the above books are recommended.

**BUSINESS RESEARCH METHODS**  
**PAPER CODE: BBA/GN/403**

Total credits: 4  
External marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Outline the significance of research and research methodology and to analyze the problems in conducting social science research in India.
2. Formulate research problem and research design.
3. Determine the sample size in consonance with the research problem and research design.
4. Collect and tabulate required primary and secondary data for analysis.
5. Prepare a report on the basis of collected data.

**UNIT I**

Concept, objectives, and significance of Research; Approaches and types of Research; Research Methodology; Research Process; Criteria of Good Research; Challenges in conducting social science research in India.

**UNIT II**

Defining the Research Problem and Research Design; Components, selection and formulation of Research Problem; meaning and need of Literature Review; Meaning of Research Design, Features of a good research design; types of Research Design.

**UNIT III**

Meaning of Census and Sample; Meaning, need, significance and principle of sampling; Essentials of a good sampling; Methods of sampling; Determination of sample size.

**UNIT IV**

Types of data; Methods of collection of primary data: Collection of Secondary Data; Use of computer and internet in collection of data; limitation of primary and secondary data. Tabulation of data for analysis, Research Proposal, Research Report: Qualities of good report, steps in report writing.

**SUGGESTED READINGS:**

1. Madan, P., Paliwal, V., & Bhardwaj, R.. Research Methodology-Methods & Techniques. New Delhi: New Age International Publishers.
2. Kothari, B. L. Research Methodology: Tools and Techniques. Jaipur: ABD Publishers.
3. Borse, M. N. Research Methodology—Modern, Methods & New Techniques. Jaipur: Shree Niwas Publishers.
4. Rao, K. V. Research Methodology in Commerce and Management. Noida, Uttar Pradesh: Sterling Publishers Private Limited.
5. Sharma, R. D., & Chahal, H. Research Methodology in Commerce and Management. New Delhi: Anmol Publications.

**Note:** Only the latest editions of the above books are recommended.

**BUSINESS RESEARCH LAB**  
**PAPER CODE: BBA/GN/404**

Total credits: 4  
Practical marks: 75  
Internal marks: 25

**Course Outcomes:**

After the successful completion of this course, students will be able to:

1. Learn data management using software.
2. Perform various statistical tests using software.
3. Analyze quantitative data.
4. Conduct research work with the help of software.

**UNIT-I**

Introduction and functions of statistical softwares; data coding, entry and checking; descriptive statistics; tables and graphs.

**UNIT-II**

Using SPSS - reliability testing, parametric tests – types of T-tests

**UNIT-III**

Using SPSS - correlation, simple linear regression; multiple regression analysis, stepwise regression.

**UNIT-IV**

Factor analysis using SPSS.

**SUGGESTED READINGS:**

1. Field, A. Discovering Statistics Using IBM SPSS Statistics. Delhi: Sage Publisher.
2. Morgan, G. A., Leech, N. L., Gloeckner, G.W., & Barrett, K. C. SPSS for Introductory SPSS – Use and Interpretation. London: Lawrence Erlbaum Associates.
3. Hair, J.F., Black, W.C., Babin, B. J., & Anderson, R. E. Multivariate Data Analysis. Delhi: Pearson.
4. Chauhan, A. Research Analytics: A Practical Approach to Data Analysis. Delhi: Dreamtech Press.

**Note:** Only the latest editions of the above books are recommended.



**EFFECTIVE CORPORATE COMMUNICATION (ECC)**  
**AEC-103-N3**

Total credits: 2  
External marks: 75  
Internal marks: 25

**Course Objectives:**

- CO1: To acquaint students with the appropriate grammatical structures in written forms.
- CO2: To enable the students to understand the significance of technical writing and formal communication.
- CO3: To equip students to develop and demonstrate effective writing skills in varied forms.
- CO4: To inspire students to deliver persuasive presentations.

**UNIT-I**

Writing Skills and Basics of Grammar: Subject-verb agreement; sentence correction; tense-verb usage; Composition of a Paragraph; Characteristics of a Good Paragraph; Use of Idioms and Proverbs; Literary Tropes and Use of Figures of Speech.

**UNIT-II**

Technical Writing and Reports: SPSE structure; IMRD structure; Report Writing: Types of Reports and Structure of a Long Report. Hedging, Nominalization; Memos; Agenda and MoM; Case Study Method; Presentations; Business Letters-quotation and placing order.

**UNIT-III**

Drafting proposals: From essays to proposals; Types of Essay Writing: Structure of an essay; Argumentative essays; Expository essays; Narrative essays; and Descriptive essays; Structure of an Essay Reading, Writing and Comprehension. Drafting proposals; Synopsis Writing; Definitions; Comparisons and Contrasts; Hedging; Nominalization, proposal presentations

**UNIT-IV**

Exercises in Proposal Presentations: Drafting and Presenting Proposals.

**Course Outcomes:**

- CO1: The students will be acquainted with the appropriate grammatical structures in written forms.
- CO2: The students will be able to understand the significance of technical writing and formal communication.
- CO3: The students will be able to develop and demonstrate effective writing skills in varied forms.
- CO4: The students will be able to deliver persuasive presentations.

**SUGGESTED READINGS:**

1. Kaul, A. Effective Business Communication.
2. Bussom, C. Professional Communication for Business.
3. Raman, M., & Sharma, S. Business Communication and Technical Writing.

**Note:** Only the latest editions of the above books are recommended.

# ENVIRONMENTAL POLLUTION, WASTE MANAGEMENT AND SANITATION

## VAC-110-N1

Total credits: 2  
External marks: 75  
Internal marks: 25

### Course Outcomes:

After the successful completion of the course, students will be able to

1. Acquire the knowledge of sources, effects, and control measures for environmental pollution/climate change at local and global level.
2. Gain insight into disaster management, environmental legislation, and impact assessment.
3. Understand various concepts related to solid waste management and apply in solid waste management.
4. Analyze health and sanitation problems in the living environment and understand various social issues related to environment.

### UNIT-I

Environmental Pollution and Climate Change: Definition, Causes, effects and control measures of:  
- Air Pollution, Water Pollution, Soil Pollution, Marine Pollution, Noise Pollution, Thermal Pollution, Nuclear Hazards. Role of an individual in prevention of pollution. Case studies.

Climate Change: Causes, Consequences and Solution of Climate Change and its effect on: Agriculture, Availability of Fresh Water and Change of River Ecosystem, Sea-Level Rising and Loss of Human interest. IPCC Agenda 21, Earth Summit, Stockholm Conference 1972. Convention on Biological Diversity (CBD), Ramsar Convention. Kyoto Protocol, Montreal Protocol.

### UNIT-II

Disaster Management: Floods, Drought, Earthquake, Volcanoes, Cyclone and Landslides - their impacts. Disaster management cycle. Role of information, education communication and training in disaster management.

Environmental Legislation and EIA: Role of Ministry of Environment and Forest (MoEF), Government of India; Central Pollution Control Board (CPCB); National Environmental Policy (NEP) -2006, in developing legislation. Environment Protection Act. Air (Prevention and Control of Pollution) Act, Water (Prevention and Control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act., Issues involved in enforcement of Environmental legislation. Environmental Awareness: Role of Non-Government Organizations in Public Awareness. Environment Impact Assessment: Concept and significance: methods of assessment.

### UNIT-III

Waste Management: Introduction to Solid waste management: Primary waste products – Solid waste, Toxic biological and hospital wastes; Waste composition and characterization. Municipal solid waste generation, cycling and disposal: landfills, incineration, source reduction and recycling, Hazardous waste management and handling rules.

### UNIT-IV

Environmental Sanitation and Health: Introduction to WHO and UNICEF, water and airborne diseases: TB, Cholera, Amoebiasis, and Dehydration: ORT, social economic and health impacts of AIDS. Role of public awareness and information technology in sanitation and human health.

Social Issues and the Environment: From Unsustainable to Sustainable development. Urban problems related to energy. Water conservation, Rainwater Harvesting, Watershed management,

Resettlement, and rehabilitation of peoples; its problems and concerns, case studies. Environmental ethics: Issues and possible solutions. Environmental Education. Wasteland reclamation, Consumerism and Waste products. Environmental movements: Chipko Movement.

#### REFERENCE BOOKS:

1. Solid Waste Management Manual CPCB, New Delhi.
2. Trivedy R.K. and Arvind Kumar, *Ecotechnology for Pollution Control and Environmental Management*
3. Sahai, Sushma (2009) *Bio- medical waste management*, APH Publishing.
4. Rao, M.N. and Sultana, R. (2012). *Solid and Hazardous Waste Management*, BS Publications, Hyderabad.
5. Canter, W. L. (1995) *Environmental Impact Assessment*, McGraw-Hill Science/Engineering/ Math, New York
6. Kulkarni, V. and Ramachandra, T.V. *Environmental Management*. Capital Pub. Co., New Delhi. 2006.
7. Glasson, J. Therivel, R. and Chadwick, A. *Introduction to Environmental Impact Assessment*. Routledge, London. 2006.
8. Sushmitha Bhaskar and R. Bhaskar, *Natural Disasters*, Unicorn Books, 2011.
9. Bohle, H. G., Downing, T. E. and Watts, M. J. *Climate change and social vulnerability: the sociology and geography of food insecurity*, *Global Environmental Change*. No.4, pp. 37-48.
10. Kukal, S. S., Kingra, P. K. (2019). *Introduction to Environmental and Disaster Management*, Kalyani Publishers.
11. Kudrow, N. J. (2009). *Conservation of Natural Resources*. Nova Science Publishers, Incorporated
12. Anderson, D. A. (2013). *Environmental economics and natural resource management*. Routledge.

#### SUGGESTED WEB SOURCES:

1. [http://envis.nic.in/ENVIS\\_html/ENVISSubject/subject.html](http://envis.nic.in/ENVIS_html/ENVISSubject/subject.html)
2. <https://nptel.ac.in/courses/103/106/103106162/>
3. <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=14>
4. <https://swayam.gov.in/>

**Note:** Only the latest editions of the above books are recommended.