JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
SCHOOL OF MANAGEMENT STUDIES, JNTUH
Three Year BBA (Data Analytics) Course Structure
with Effect from Academic Year 2022-23

I Year I Semester

S.No.	Course Code	Course Title	L	P	T	Internal Marks	External Marks	Credits
1	22BBA101	Principles of Management	4	--	--	40	60	4
2	22BBA102	Business Statistics	4	--	--	40	60	4
3	22BBA103	Business Communication	4	--	--	40	60	4
4	22BBA104	Foundations of Information Technology	4	--	--	40	60	4
5	22BBA105	Business Communication Lab	--	3	--	20	30	1.5
6	22BBA106	MS office Lab	--	3	--	20	30	1.5
7	22BBA107	Open Elective – I a) Environmental Science b) Business Ethics c) Indian Economy	3	--	--	40	60	3
	Total		**19**	**6**	**--**	**240**	**360**	**22**

I Year II Semester

S.No.	Course Code	Course Title	L	P	T	Internal Marks	External Marks	Credits
1	22BBA201	Financial Accounting	4	--	--	40	60	4
2	22BBA202	Business Economics	4	--	--	40	60	4
3	22BBA203	Fundamentals of Marketing	4	--	--	40	60	4
4	22BBA204	Human Resources Management	4	--	--	40	60	4
5	22BBA206	Accounting Information Systems Lab	--	3	--	20	30	1.5
6	22BBA207	Personality Development and Soft skills	--	3	--	20	30	1.5
7	22BBA208	Open Elective – II a) Sustainability Management b) Intellectual Property Rights c) Quality Management	3	--	--	40	60	3
	Total		**19**	**6**	**--**	**240**	**360**	**22**

* Summer Internship - I - Social Responsibility Project Report - 2 credits Report is presented in II Year I Semester

II Year I Semester

S.No.	Course Code	Course Title	L	P	T	Internal Marks	External Marks	Credits
1	22BBA301	Business Environment	4	--	--	40	60	4
2	22BBA302	Start up Management	4	--	--	40	60	4
3	22BBA303	Financial Management	4	--	--	40	60	4
4	22BBA304	Business Research Methodology	4	--	--	40	60	4
5	22BBA305	Fundamentals of Supply Chain Management	4	--	--	40	60	4

6	22BBA306	Spreadsheet Lab	--	3	--	20	30	1.5
7	22BBA307	Business Development Plan	--	3	--	20	30	1.5
8	22BBA308	# Social Responsibility Project Report in Summer Vacation (Summer Internship – I) *	--	--	2	50		2
	Total		20	6	2	290	360	25

II Year II Semester

S.No.	Course Code	Course Title	L	P	T	Internal Marks	External Marks	Credits
1	22BBA401	Business Laws	4	--	--	40	60	4
2	22BBA402	Cost and Management Accounting	4	--	--	40	60	4
3	22BBA403	Quantitative Analysis	4	--	--	40	60	4
4	22BBA404	E-Business	4	--	--	40	60	4
5	22BBA405	Business Taxation	4	--	--	40	60	4
6	22BBA406	Multimedia Lab	--	3	--	20	30	1.5
7	22BBA407	Field based Project in a company or NGO during summer vacation **	--	3	--	20	30	1.5
	Total		20	6	--	240	360	23

** Summer Internship – II: Field based study in a Company (or) Public Sector (or) NGO.

III Year I Semester

S.No.	Course Code	Course Title	L	P	T	Internal Marks	External Marks	Credits
1	22BBA501	International Business	4	--	--	40	60	4
2	22BBA502	Design Thinking	4	--	--	40	60	4
3	22BBA503	Business Analytics	4	--	--	40	60	4
2	22BBA503	Python Programming	4	--	--	40	60	4
4	22BBA504	Data Science	4	--	--	40	60	4
6	22BBA506	Python programming Lab	--	3	--	20	30	1.5
7	22BBA507	Social Media Analysis	--	3	--	20	30	1.5
	Total		20	6	--	240	360	23

III Year II Semester

S.No.	Course Code	Course Title	L	P	T	Internal Marks	External Marks	Credits
1	22BBA601	Fundamentals of Strategic Management	4	--	--	40	60	4
	22BBA602	Introduction to Information Systems	4	--	--	40	60	4
2	22BBA603	R programming	4	--	--	40	60	4
3	22BBA604	Data Visualization	4	--	--	40	60	4
4	22BBA604	R programming Lab	--	3	--	20	30	1.5
5	22BBA605	Pre-submission Seminar (project)	--	--	3	50		1.5
6	22BBA606	Project Work	2	3	1	--	100	4
	Total		18	6	4	230	370	23

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA101: PRINCIPLES OF MANAGEMENT

Course Objectives:
- To understand the evolution, functions and process of Management.
- To know about the importance of planning, decision making in an organization.
- To learn about various organizational structures, authority and responsibility, line& staff relationships in an organization.
- To enable students to understand HR planning, recruitment, selection process in an organization.
- To orient on the aspects of directing & controlling in an organization.

Course Outcomes: Students will be able to
- The management functions, process in an organizational setting.
- Gain knowledge on types of plans, environmental analysis and techniques in decision-making.
- Different types of organizational structures for organizational effectiveness.
- HR planning, its importance and also know the importance of recruitment and selection process in an organization.
- Identify the different types of leaders, their styles for organizational growth.

Unit -I: Introduction to Management
Concept, nature and scope, importance of management, the management process, hierarchy of management, mmanagement functions, managerial skills and competencies. Evolution of management thought: Scientific Management approach, Classical Management Approach, Administrative approach, Behavioural approach, System, Contingency approach, learning organization.

Unit -II: Planning
Concept and importance, planning process, Benefits, Essentials of a Good plan, Types of plans, planning tools and techniques, Management by Objectives, eenvironmental analysis and diagnosis. decision making-Concept and process, types of Decision-making, Decision-Making Model.

Unit -III: Organizing
Concept, nature & scope, span of Management, organizational structure, types of organizational structures and their merits and demerits, process and significance. Authority and responsibility - delegation, centralization and decentralization of authority, line and staff relationship, accountability.

Unit -IV: Managerial Staffing
Nature of staffing function, Human Resource Planning, sources of recruitment, recruitment process and types. Selection - process, types of selection, job offer, placement and induction.

Unit -V: Directing and Controlling
Need for directing, principles and characteristics of directing, Leader Vs Manager. Controlling-importance of controlling, characteristics of control, steps, resistance to control, design of effective control system and types.

Suggested Readings:
- Anil Bhat, Arya Kumar, Principles of Management, Oxford University Press, 2018.
- Chandrani Singh, Aditi Khatri, Principles and Practices of Management and Organizational Behaviour, Sage Publications, 2016.
- John R. Schermerhorn., Daniel G. Bachrach, Introduction to Management, Wiley, 13e, 2016.
- Robbins, S. P., & DeCenzo, A. D. Fundamentals of Management. New Delhi: Pearson Education.
- Harold Koontz & Heini Weihrich Essentials of Management-An International, Innovation and Leadership perspective, 11th Edition, Tata Mc Graw-Hill Education, 2020
- T. Ramasamy, Principles of Management, Himalaya Publishing House, Mumbai,2018.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER I
22BBA102: BUSINESS STATISTICS

Course Objectives:
- To know the need and importance of Statistics in business and in organizations.
- To learn different scaling techniques, sources of data collection, drafting questionnaire for conducting surveys.
- To enable students to learn descriptive statistics and understand its significance.
- To understand the importance of variance and standard deviation.
- To present the statistical data in a user-friendly way for organizational effectiveness.

Course Outcomes: Students will be able to
- Understand the basics of statistics, its importance and applications in various areas of study.
- Apply various data collection methods, art of drafting questionnaire to solve practical business problems.
- Apply the measures of central tendency to the statistical data.
- Evaluate the measures of dispersion to solve practical problems.
- Interpret and present data diagrammatically, graphically for better decision- making.

Unit -I: Introduction to Business Statistics
Origin and development of statistics – definition of Statistics, its importance and scope and objectives of statistics, application areas of Statistics: Business, Economics, Research, Government and other areas. Limitations of Statistics.

Unit -II: Qualitative Methods of Data Collection
Types of data collection – primary and secondary data , classification of secondary data, internal source data, external source data, precautions in the use of secondary data, methods of collecting primary data, drafting the questionnaire, pretesting the questionnaire (Pilot survey).

Unit -III: Descriptive Statistical Analysis
Introduction to descriptive statistical analysis, types of data, frequency distribution, measures of central tendency- Mean, Mode, Median, calculation of arithmetic mean, mode and median for Individual observation, discrete series, continues series. Types of mean- merits and demerits.

Unit -IV: Measures of Dispersion
Introduction –significance of measuring variance, pproperties of a good measure of variance , methods of studying variance, Quartile deviation - calculation of mean deviation, standard deviation- mean deviation for continues series.

Unit -V: Data Analysis and Interpretation
Sources of Information, tabulation, cross tabulation, diagrammatic and graphical representation of data. one dimensional, two dimensional and three-dimensional diagrams and graphs.

Suggested Readings:
- William G Zikmund, Barry J Babin, Jon C. Carr, Atanu Adhikari, Mitch Griffin, Barry J. Babin, Business Research Methods, Cengage Learning, 2012.
- Prahalad Mishra, Business Research Methods, Oxford University Press, 2015.
- S.P. Gupta, Statistical Methods, Sultan Chand & Sons, 2018.
- Gupta SC, Fundamental of Statistics, Himalaya Publishers House, 7th Ed, 2019.
- Sharma JK, Business Statistics, Pearson Education, 2nd Edition, 2007.
- Arora, PN, Arora, Sumeet and Arora, Amit,Managerial Statistics, S. Chand, 1st Edition, 2009.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA103: BUSINESS COMMUNICATION

Course Objectives:
- To understand the importance of communication, its components and process.
- To know the importance of formal, informal communication, its applications in Business.
- To develop verbal and non - verbal communication skills for overall personality development.
- To focus on written communication for overall development.
- To analyze different inter-cultural, cross cultural, need for business etiquettes in an organization.

Course Outcomes: Students will be able to
- Understand the importance of communication in Business.
- Gain knowledge on different modes of communication for self development.
- Develop oratory skills and non-verbal skills for effective presentation.
- Improve written communication through drafting letters and reports
- Learn the ways to understand different cultures and use of social media for effective communication in organizations.

Unit -I: Introduction to Business Communication
Introduction to communication, sender-receiver model of day-to-day communication. Foundations of Business Communication: Components of Communication, business communication process. Barriers to communication.

Unit -II: Day-to-day Business Communication
Formal vs. informal communication in organizations. Direction of information: upward, downward, horizontal/lateral, diagonal, Cross communication and grapevine. Importance and need for developing listening skills. Modes of communication: Verbal (oral), written, non-verbal communication and others.

Unit -III: Developing verbal and non-verbal communication skills
Presentation vs. oral communication, developing presentation skills. Role of non-verbal communication; using non-verbal skills, body-language, gestures for enhancing the effectiveness of verbal communication and presentation.

Unit -IV: Developing Written Communication skills
Planning and organizing written content, guidelines for writing formal letters and e-mails; kinds of formal letters and e-mails, learning to customize written communication for different situations. Basic guidelines for report writing.

Unit -V: Contemporary aspects of Business Communication
Inter-cultural, team communication and organizational communication; interpersonal communication, Role of social media in communication, business etiquette.

Suggested Readings:
- Kelly M. Quntanilla and Shawn T. Wahl, Business and Professional Communication, Sage, 4e, 2020
- Ober Newman, Communicating in Business, Cengage Learning, 8e, 2015
- Hory Sankar Mukerjee, Business Communication, Oxford, 2e, 2016
- M K Sheal & Vandana Khetrapal, Business Communication, Excel books.
- Celeste Lawson, Robert Gill, Angela Feekery, Mieke Witsel, Communication Skills for Business Professionals, Cambridge University Press 2019.
- Sanjay Gupta, Business Communication (E Book), SBPD Publications,2021.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA104: FUNDAMENTALS OF INFORMATION TECHNOLOGY

Course Objectives:
- To enable students to understand the basic concepts of IT in business.
- To understand about Operating systems, programming languages and computer networks.
- To provide understanding on different types of information systems, system development life cycle.
- To understand the Database management systems and its applications in an Organization.
- To analyze the emerging trends in information Technology.

Course Outcomes: Students will be able to
- Learn the evolution of computers, various memory devices and about the role of cloud computing in business.
- Know about the future internet technology and its applications in business.
- Make aware of different types of Operating Systems for effective functioning of an organization.
- Understand DBMS, data warehousing, data mining and its applications in business.
- Gain knowledge about various trends in IT like EDI, RIFD, infrared communication.

Unit -I: Computer system: An Overview
Introduction to computer, block diagram of a computer, input and output devices of computer, GUI, evolution of computer, characteristics, types and classification of computer, application of computer, memory devices, Cloud computing.

Unit -II: Computer software and networks
Software, classification of software, operating systems, types of operating system, programming languages, classification of programming languages and programming languages based on applications. LAN, application of LAN, WAN, Intranet, Internet and future internet technology.

Unit -III: Information System
Introduction to data, information and knowledge, types of information-Transaction Processing System, Management Information Systems, Decision Support System, Executive Support system, Management structure, information needs, design of an operational information system, system life cycle.

Unit -IV: Data Base Management Systems (DBMS)
Data Base definition, database management system architecture, types of database, data warehousing, data mining, logical data concept and physical data concepts.

Unit -V: Emerging Trends in IT
E-Commerce, EDI, mobile communication, bluetooth, global positioning system, infrared communication, smart card, RIFD. Developments in Information Technology.

Suggested Readings:
- Dr.Kuldeep Singh Kanswan, Dr. Om Prakash Sangwan, Essential of Information Technology, Educreation Publishing, 2018.
- I.T.L.Education Solutions Ltd, Introduction to Information Technology, Pearsons Education, 2005.
- V.Rajaraman, Introduction to Information Technology, PHI Learning Private Limited, 3e, 2018.
- Henry C Lucas,Jr., Information Technology for Management, Tata Mc-Graw Hill,7e.
- V.Rajaraman, Introduction to Information Technology, PHI Learning Pvt. Ltd., 2018.
- Jaytilak Biswas, Management Information Systems, Sage Texts, 2020.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA105: BUSINESS COMMUNICATION LAB

Course Objectives:
- To provide an understanding of communication in Business.
- To make use of various modes of communication.
- To practice verbal and non-verbal communication in an organization.
- To understand the methods of developing written communication skills.
- To orient on the contemporary business communication report writing.

Course Outcomes: Students will be able to
- Experience the importance of barrier- free communication.
- Use of the various nodes of communication in an organization
- Enhance learning through effective presentation skills and business etiquettes.
- Write business letters, e-mails and reports.
- Learn how to use various social media platforms for business purposes.

Unit – I: Introduction to Business Communication
Game to demonstrate complexity in communication. Role -plays to debrief the process of communication in different contexts. Barriers to communication: Exercises on Listening, Speaking, Reading and Writing (LSRW).

Unit – II: Day-to-day Business Communication
Use of formal communication, iinformal communication for effectiveness, hearing vs. listening, identifying barriers to listening and addressing them. Excessive talking, prejudice, distraction, misunderstanding, interrupting, noise etc.

Unit – III: Developing Verbal and Non-Verbal communication skills:
Design elements of a presentation, two-three iterations of presentations and feedback, improvisations (presentations skills such as pace, tone, voice modulation, inflection etc.). Body language in presentations: posture, body movements, gestures / hand movements, facial expressions, eye contact etc.

Unit – IV: Developing Written Communication skills
Review of various letter writing templates, Choosing right format for different types of letters and mails, Practice of letter writing and e-mail writing, Bio-data, CV, brief profile, creating profile in Professional network (Linked in).

Unit – V: Contemporary aspects of Business Communication
Presentations on application of social media platforms: blogs, vlogs, Podcast, micro blogs, multimedia, wikis and social networking.

Suggested Readings:
- Kelly M. Quntanilla and Shawn T. Wahl, Business and Professional Communication, Sage, 4e, 2020
- Ober Newman, Communicating in Business, Cengage Learning, 8e, 2015
- Hory Sankar Mukerjee, Business Communication, Oxford, 2e, 2016
- M K Sehgal & Vandana Khetrapal, Business Communication, Excel books.
- Celeste Lawson, Robert Gill, Angela Feekery, Mieke Witsel, Communication Skills for Business Professionals, Cambridge University Press 2019.
- Sanjay Gupta, Business Communication (E Book), SBPD Publications,2021.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA106: MS OFFICE LAB

Course Objectives:
- To learn various basic features of MS-Word.
- To understand the advanced features of MS-Word.
- To learn various basic functions of MS-Excel.
- To provide an understanding of various MS-Excel functions, formulas and its usage in business.
- To orient the students to apply the various aspects of multiple worksheets.

Course Outcomes: Students will be able to
- Write letters, format documents in MS-Word.
- Build spreadsheets to perform data analysis.
- Create technical documents incorporating equations.
- Insert tables, images from the data for better presentations.
- To create documents that demonstrates proficiency with the use of MS-office.

Unit -I: Word Processing-MS Word
Introduction to Word Processing, introduction to MS Word, editing a document, previewing a document, printing documents, formatting a document.

Unit -II: Word Processing - Advanced Features of MS Word
Find and replace, checking the grammar and spelling, using the thesaurus, auto correct, auto complete and auto Text, word count, mail merge, mailing labels, wizards and templates, handling graphics, table insert and modifications, conversion of table, converting a word document in various format.

Unit -III: Work Sheets: MS Excel-I
Worksheet Basic, creating worksheet, entering data into worksheet, entering text data, dates, alphanumeric and values, saving and quitting worksheet, opening and moving around is an existing worksheet

Unit -IV: Work Sheet: Using formulas
Toolbars and menus, keyboard shortcuts, working with single and multiple worksheets, Working with formulas and cell referencing, auto sum, copying formulas, absolute and relative addressing, working with range, formatting of worksheets.

Unit -V: Work Sheets: Using Charts
Previewing and printing worksheets, page setting, print title, adjusting margins, headers and footers, page break, graphs and charts, previewing and printing charts, database creation, sorting, query and filtering, Functions database, multiple worksheets

Suggested Readings:
- Linda Foulkes, Learn Microsoft Office 2019A Comprehensive Guide to Getting Started with Word, PowerPoint, Excel, Access, and Outlook(E Book), Packt Publishing, 2020
- Dr.S.S. Shrivastava, Ms. Office, Firewallmedia,2007.
- Darry Kegg, Aaron Guilmette, LouMandich, Ed fisher, Microsoft Office 365 administration, Pearson Education, 2018.
- Anita Goel, Computer fundamentals, Pearson, 2010.
- Raja Raman, Fundamentals of computers, PHI, 2014.
- Tulasi Ram, Basics of Computer Skills, HPH, 2019.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA107: ENVIRONMENTAL SCIENCE (Open Elective)

Course Objectives:
- To learn about the Environment management and environmental ethics.
- To understand the structure and functions of eco system and the ecological interactions.
- To understand the importance of natural resources for survival.
- To know about the biodiversity and conservation and its role in protecting environment.
- To analyze the green environment issues and the role of IT in environment protection.

Course Outcomes: Students will be able to
- Gain knowledge on environmental aspects and sustainability.
- Understand the ecological interactions in ecosystem.
- Know how to protect various Natural resources.
- Apply and study various issues in Biodiversity and conservations.
- Know the use of various Green environment initiatives in Indian scenario.

Unit -I: Introduction to Environmental studies
Definition, scope and importance-Sustainable development, Realm of Ecology, Environmental Management System (EMS), Biodiversity, Business and Environment, Environmental Ethics.

Unit –II: Ecosystems
Concept of an ecosystem. – Structure and function of an ecosystem; Producers, consumers and decomposers. Food chains, food webs and function of ecosystem: Energy flow in an ecosystem, nutrient cycle and ecological succession. Ecological Interactions.
Case studies of the following ecosystems: a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).

Unit -III: Natural Resources
Renewable and Non-Renewable, Forest Resources, Water Resources, Mineral Resources, Food Resources, Energy Resources, Land resources.

Unit -IV: Biodiversity and Conservation
Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots. Endangered and endemic species of India Threats to biodiversity, Nature reserves, tribal populations and rights (Niyamgiri-Vedanta, POSCO), and human wildlife conflicts in Indian context (Sundarban-Human-Tiger encounters). Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

Unit -V: Green Environmental Issues
Introduction – Clean development mechanism, carbon foot print, carbon credits, carbon sequestration and Polluter pay principle. Green building practices. Approaches to green computing and nanotechnology IS014000. Role of information technology in environment and human health. Case Studies.

Suggested Readings:
- Abhik Gupta, Susmita Gupta, Environmental Studies Principles and Practices, Sage Publications,2021
- Anji Reddy .M, Textbook of Environmental Sciences and Technology, Hyderabad, BS Publications, 2007.
- Benny Joseph, Environmental Studies, New Delhi, Tata McGraw Hill Publishing co. Ltd, 2005.
- Erach Bharucha, Textbook of Environmental Studies for Undergraduate Courses, Hyderabad, Universities Press, 2005.
- Y Anjaneyulu, Introduction to Environmental Sciences, BS Publications, 2004.
- Mahua Basu, S. Xavier, Xavier Savarimuthu, SJ, Fundamentals of Environmental Studies, Cambridge University Press,2017.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – I
22BBA107: BUSINESS ETHICS (Open Elective)

Course Objectives:
- To enable students to understand the various practices of Business ethics followed in an organizations.
- To provide an understanding about profession, professionalism.
- To orient students about ethical dilemmas faced by individuals in organizations.
- To learn about ethics in different organizational culture.
- To understand ethical aspects in Global business context.

Course Outcomes: Students will be able to
- Learn the code and principles of business Ethics.
- Know about the significance of professional ethics.
- To look into the ethical aspects in business decision- making.
- Learn various models of ethics.
- Evaluate various Global ethical practices in Organizations.

Unit –I: Introduction to Ethics
Meaning of ethics, Objectives of ethics, ethics and morality, moral standards, moral development, Business Ethics -Meaning, objectives, scope, arguments, code of ethics and principles, data Ethics and society. Introduction, fake news as in 'Uncivilising Process', information ethics to data ethics, data ethics to the ethics of digitization, ethical responses to data issues.

Unit –II: Theories and Professional Ethics
Meaning, relevance, foundation of Theories of Business Ethics, Teleological theories, Deontological Theories. Professional Ethics - meaning, difference between professional ethics and personal ethics, professional ethos, significance of professional ethics.

Unit –III: Ethical Dilemma
Introduction, ethical dilemma-conflict of interest, mutual Self - enrichment, pure self-interest, models of ethical decision making-utility, rights, justice and caring models (URJC Model), Janus-Headed Model/The DU Model/Whiteheadian Model, comprehensive decision making, Good ethical decisions, white collar crime.

Unit –IV: Managing Organisational Ethics
Organisational culture, importance, types, cultural audit, reasons for unethical behaviour, ethical climate, ethical risk, leadership and ethics, group dimensions, ethics audit-benefits, tools and framework.

Unit –V: Global Ethics Management
Global culture, values, practices, economic foundation of business ethics, multinational corporation, avoiding, forcing, persuasion or education, infiltration, negotiation or compromise, accommodation and collaboration.

Suggested Readings:
- John G.Cullen, Business, Ethics and Society, Sage Texts, 2022.
- Shailendra Kumar & Alok Kumar Rai, Business Ethics, Cengage, 2019.
- O.C.Ferrell, John Fraedrich and Linda Ferrell, Business Ethics,Cengage,12e,2019.
- Marianne moody Jennings, "The Legal, Ethical and Global Environment of Business", 2009, South western Cengage learning, New Delhi.
- Andrew Crane, Dirk Matten, Sarah Glozer, Laura J. Spence, Business Ethics, Managing Corporate Citizenship and Sustainability in the Age of Globalization, Oxford University Press, 2019.
- Sandeep K. Bansal, Sanjeev K. Bansal, Rama Bansal, Business Ethics and Corporate Governance, Kalyani Publishers, 2019.

22BBA107: INDIAN ECONOMY (Open Elective)

Course Objectives:
- To enable the students, understand Indian Economy and its framework.
- To evaluate the Economic Growth, National Income and Business Cycles.
- To examine the operation & Implementation of Fiscal and Monetary Policy in India.
- To forecast economic challenges, Unemployment & Inflation in the Indian economy.
- To understand the trade policy and Balance of Payment and its impact.

Course Outcomes: Students will be able to
- Students will be able to understand Micro and Macro level economics in India.
- To make the student aware of growth and economic cycle and its impact on business.
- To understand the role of fiscal and monetary policy in economy.
- To anticipate the consequences of changes in the quantity of money on economic variables.
- Enable them to assess the role of Balance of payments in Indian Economy.

Unit -I: Introduction
Overview, Economic reforms and performance of Indian economy, global economic crisis and Indian economy. Basic characteristics of Indian economy as a developing economy, trade-offs, macro, micro and meso economics and Keynesian economics.

Unit –II: Economic growth and National Income
Business Cycles: Slowdown, Recession, Great Recession and depression, Measuring economic growth, gross domestic product and gross national product, growth and development, growth and inequality, inequality in India.
National Income estimate in India, Trends in National Income, Growth, Structure and limitations of National Income.

Unit –III: Fiscal and Monetary Policy
Definition, revenue and expenditure account, deficits, deficit financing, fiscal stimulus, FRBM act, fiscal consolidation, plan and non-plan expenditure, classification, domestic savings in India and trends in India, public debt, external debt, internal debt.
Monetary policy - definition, money supply, monetary aggregates, demonetization, Indian Financial Code, Monetary Policy Committee, Framework.

Unit –IV: Inflation and Unemployment
Introduction to inflation, types, measures and causes, price stability and optimal inflation, potential GDP and inflation, inflation and corruption, grown inflation trade off, inflation in India. Unemployment-measuring, types, causes, consequences, classification and Pradhan Mantri Kaushal Vikas Yojana (PMKY).

Unit –V: Balance of Payments
Introduction, Balance of Payments on current and capital account, BOP crisis, India's Trade policy, Indian Foreign trade policy-1991, 2004-2009, 2015-2020, export import policy, balance of payment invisibles, currency convertibility, FEMS and FERA.

Suggested Reading:
- Sri Ram Srirangam, Manish Kumar, Rohit Deo Jha, "Indian Economy-Principles, Policies and Progress", Pearsons Education, 2020.
- Gaurav Datt and Ashwani Mahajan, "Indian Economy", S Chand and Company limited,72e,2018.
- Nilanjan Banik, "Indian Economy", SAGE.
- B. A. Prakash, "The Indian Economy-Economic reforms and Performance", Pearson Education,2e,1991.
- Dr. V. C. Sinha, Indian Economy Performance and Policies, SBPD Publications, 2021.
- Nilanjan Banik, The Indian Economy A Macroeconomic Perspective(E Book), SAGE Publications,2015.

BBA SEMESTER – II
22BBA201: FINANCIAL ACCOUNTING

Course Objectives:
- To emphasize the theoretical foundation of Financial Accounting and its applications in business.
- To understand the importance of Double Entry Book System and Accounting Process.
- To develop the skills needed to analyze financial statements and its interpretation for better decision making.
- To understand the significance of Inventory and its role in financial accounting.
- To provide an understanding to analyse financial statements through Ratios.

Course Outcomes: Students will be able to
- Know the basic terminologies in financial accounting and learn accounting standards issued by ICAI.
- Gain knowledge about the Accounting Cycle to prepare and interpret financial statements from financial transactions.
- Analyze the reasons for keeping inventories to aid in financial decision making.
- Able to learn the inventory valuation methods in business.
- Interpret financial statements through ratios analysis.

Unit –I: Introduction to Accounting
Importance, Objectives and Principles, Accounting Concepts and conventions, and The Generally Accepted Accounting Principles (GAAP), Accounting Standards Issued by ICAI- International Financial Reporting Standards (IFRS), Basic terminology in accounting.

Unit –II: The Accounting System
Double entry system–recording business transactions–Classification of accounts–Accounting cycle, Books of Original Record; Journal, ledger, Trial Balance, Rectification of Errors (Problem Solving).

Unit –III: The Accounting Process
Capital and Revenue expenses, Final Accounts; Trading-Purpose, structure and Format, Profit and Loss account-Purpose, structure and Format and Balance sheet -Purpose, structure and Format without adjustments and with adjustments (Problem Solving).

Unit –IV: Inventory Valuation and Depreciation
Introduction, Reasons for Keeping Inventories, objectives of inventory accounting, Methods of inventory valuation- Sales Price Method, Market Price Method and cost Price Methods Depreciation, Methods of depreciation and valuation -Straight Line Method, Diminishing Balance Method, Sum of years' Digits Methods, Production Units Methods (Problem Solving).

Unit –V: Financial Analysis
Introduction to financial statements Analysis, Horizontal Analysis and Vertical Analysis of Company, Financial Statements, Liquidity, leverage, solvency and profitability ratios – Du Pont Chart.

Suggested Readings:
1. Narayanaswamy, R.,Financial Accounting A Managerial Perspective, PHI Learning Pvt. Ltd.,2022
2. R. K. Arora, Financial Accounting-Fundamentals, Analysis and Reporting, Wiley, 2e, 2018.
3. Jai Kumar Batra, Accounting and Finance for Non- Finance Managers, Sage texts, 1e, 2019.
4. S. N. Maheswari, S. K. Maheshwari, Sharad K. Maheshwari Accounting for Management, 4e, Vikas Publishing House, 2018.
5. Dhanesh K. Khatri, Financial Accounting & Analysis, Tata McGraw-Hill Publishing Limited, New Delhi, 2015.
6. Paresh Shah, Basic Financial Accounting for Management, Oxford University Press, New Delhi, 2014.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA202: BUSINESS ECONOMICS

Course Objectives:
- To understand basic concepts of economics and its applications in business.
- To understand the importance of the demand and supply analysis in business forecasting.
- To facilitate the knowledge of production aspects, economies and diseconomies of scale.
- To understand the cost structure and various cost aspects in a firm and its applications.
- To determine the price and output decisions under various market structures.

Course Outcomes: Students will be able to
- Understand foundation of economics and its application in business.
- Analyse the market focus, demand and supply in business.
- Evaluate the production function, economics of scale to practical business aspects.
- Analyze the types of cost its components, breakeven analysis in decision making.
- Evaluate the various pricing methods, its application in different market structures.

Unit -I: Introduction to Business Economics
Economics-Definition, concepts, micro vs macroeconomics, business economics, economics vs business economics, relation of business economics with other disciplines; business decisions in short and long run; Basic economic principles: opportunity cost, marginalism, equi-marginalism, incremental cost, time perspective, discounting principle, risk & uncertainty.

Unit -II: Theory of Demand & Supply
Demand-Law of demand, demand function, demand schedule, types of demand, elasticity of demand, measurement of elasticity of demand, demand forecasting, demand forecasting methods. Exceptions to the law of demand. Supply- Law of supply, supply function, elasticity of supply. Market equilibrium.

Unit -III: Production Analysis
Production function with one variable and two variables, Cobb Douglas production function, iso-quants and iso-costs, returns to scale, economies and diseconomies of scale.

Unit –IV: Cost Concepts
Cost concepts, determinant of cost, cost output relationship in the short run and long run, short run vs long run costs, average cost curves, Break even analysis.

Unit – V: Market Structures &Pricing Strategies
Classification of Market Structures: Perfect and imperfect markets, features of Perfect , Monopolistic, Oligopolistic and Monopoly markets, Price output determination under perfect competition and Monopoly.Pricing Policy, price discrimination, cost plus pricing, pricing of multiple products, transfer pricing.

Suggested Readings:
- Dominick Salvatore & Siddhartha K. Rastogi, Managerial Economics, Oxford Publications, 9e, 2020
- Satya P. Das & J.K. Goyal, Managerial Economics, Sage,2022
- Geetika Piyali Ghosh, Managerial Economics, Tata McGraw-Hill Education, 2003.
- H L Ahuja, Business Economics, S Chand & Co. 9e, 2017
- Suma Damodaran, Managerial Economics, 2e, 2010
- N. Gregory Mankiw, Principles of Economics, Cengage, 7e, 2012

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA203: FUNDAMENTALS OF MARKETING

Course Objectives:
- To understand the various functions, evolution and challenges in marketing.
- To learn about marketing research process and its application.
- To understand about marketing segmentation, targeting and positioning.
- To analyze the new product development process and product life cycle of an organization.
- To evaluate the marketing mix and its impact on business.

Course Outcomes: Students will be able to
- Understand marketing principles, concepts and challenges.
- Analyse PESTEL in Indian market.
- Analyze Market Segmentation, Targeting and Positioning strategies of the organization.
- Evaluate factors of new product development, understand PLC and about various marketing strategies.
- Understand marketing mix and its impact on business.

Unit –I: Introduction to Marketing
Meaning of Marketing**.** Evolution of Marketing, Nature & Scope marketing -Basic Principles of the production, product, selling, marketing and holistic marketing concepts. Marketing Challenges of the 21st century, e-Marketing.

Unit -II: Marketing Research & Marketing Environment
Nature & Scope, Marketing Research Process, types of research. demographic, Political, Economic, Socio cultural, Technological, Environmental, Legal environment (PESTEL)(Indian context).

Unit -III: Market Segmentation, Targeting & Positioning (STP)
Market Segmentation, meaning, its benefits, Bases for segmenting Consumer market and Industrial market, Market Targeting, Product positioning concept and Tools.

Unit -IV: New Product Development
New Product Development: Concept, Levels of Products – core benefit, Product Life Cycle - concept, stages and its influence on marketing mix decisions.

Unit –V: Marketing Mix
Price: Meaning, pricing objectives, Pricing Strategies - skimming pricing, Penetration pricing and psychological pricing.
Place**:** Channel functions, channel Levels, types of wholesalers.
Promotion Mix: Factors determining promotion mix, promotional tools –basics of advertisement, sales promotion, public relations and publicity and personal selling.

Suggested Readings:
- Philip Kotler, Gray Armstrong, Prafulla Agnihotri, Principles of Marketing, 17e.Pearson Education,2018.
- Rosalind Masterson, Nichola Phillips, David Pickton, Marketing An Introduction, 5 e, SAGE South Asia edition, 2021
- Lamb, Hair, Sharma, Mc Daniel, Principles of Marketing, A South Asian Perspective Cengage Learning, 2016.
- Ramaswamy Namakumari, Marketing Management-Indian Context, Global Perspective,6e. Sage Texts, 2018.
- K.S. Chandrashekar, Market Management-Text & Cases, Tata Mc Graw Hill,2010.
- Paul Baines, Chris Fill, Sara Rosengren, and Paolo Antonetti, Marketing Oxford University Press, 2020.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA204: HUMAN RESOURCE MANAGEMENT

Course Objectives:
- To enable the students to understand the HRM practices at various levels in the organization.
- To forecast the HR inventory and human resource planning its importance.
- To assess the concepts of Job Analysis and sources of job analysis.
- To Identify the need of staffing.
- To understand the need of training and development.

Course Outcomes: Students will be able to
- Learn the human resource effectively in an organization, HR Functions, importance and challenges.
- Determine the significance of human resource planning and demand and supply of manpower in the organization.
- Able to determine the number of vacant positions in an organization with job analysis.
- Identify the right profile for recruitment and selection and understand its process.
- Provide an understanding of the required training and development programmes in the organization.

Unit - I: Introduction to HRM
Definition, Nature & scope of human Resource Management - evolution of human resource management, objectives, functions, Importance of human resource Management Challenges of Human Resource Management, Contemporary role of Human Resource Manager, e-HRM.

Unit - II: Human Resource Planning
Introduction to Human Resource Planning, importance, objectives of HR Planning, steps, types of Human Resource Planning - corporate planning and the human resource planning process -human resource information system.

Unit - III: Job analysis
Concept of Job Analysis - process of job analysis, purposes and uses of job analysis, sources of information for job analysis, job description and sspecifications, satisfaction, job design, job rotation, Job enlargement, job enrichment, human resource inventory.

Unit - IV: Recruitment & Selection Process
Introduction to Recruitment and selection concepts of recruitment - types of recruitment, sources of recruitment - merits and demerits of recruitment methods, recruitment process
Selection-types of selection methods, selection Process – e-recruitment and selection, On boarding and Induction.

Unit - V: Training & Development
Nature and scope of training and development - objectives, methods, process- analysis training needs & designing the training program, implementation, feedback.
Development-training Vs Development, Management development, process, evaluation of development programs, continues learning.

Suggested Readings:
- Shashi K Gupta, Rosy Joshi, Human Resource Management, Kalyani Publishers,2021.
- Seem Sanghi, Human Resource Management, Vikas Publication, 2e, 2019.
- Gary Dessler, Biju Varkkey, Human Resource Management, 4e, Pearson 2017.
- Robert L. Mathis, John H. Jackson, Manas Ranjan Tripathy, Human Resource Management, Cengage Learning 2016.
- Uday Kumar Haldar, Juthika Sarkar, Human Resource Management, Oxford University Press 2013.
- K. Aswathappa, Human Resource Management, Text and Cases, TMH, 2011.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA205: ACCOUNTING INFORMATION SYSTEMS LAB

Course Objectives:
- To understand the Accounting groups & Inventory vouchers.
- To learn about taxation aspects in Tally.
- To understand voucher entries using tally.
- To know the payroll system is in Tally.
- To understand the reports.

Course Outcomes: Students will be able to
- Create the accounting groups.
- Able to perform the inventory data in software.
- Adopt Goods and Services Tax, tax deducted at source, professional tax in Accounting
- Enter the payroll system using Accounting Software.
- Generate the financial report and stock report of a company.

Unit –I: Accounting Groups in Tally
Charts of groups, groups, multiple groups, ledgers, multiple ledgers.

Unit -II: Inventory and Vouchers in Tally
Stock Group, Multiple stock group, stock categories, multiple stock categories, unit of measures, stock items. Introduction to vouchers, types, chart, accounting, inventory, invoicing.

Unit –III: Tax in Tally
TDS, TDS Reports, GST, GST Returns, Professional Tax.

Unit –IV: Payroll Accounting in Tally
Employee creation, salary define, employee attendance, register, pay head creation, salary report.

Unit –V: Generating Reports in Tally
Financial statements, trading, profit and loss a/c, balance sheet, inventory report, payroll report, stock summary.

Suggested Readings:
- Joy Dhingra, Good and Service Tax, Kalyan Publishers, 2022.
- Neeraj Goyal, Tally, Kalyani Publishers,2018.
- Jeff Lewis,The Book You Need Before You Buy That Accounting Software,Evolve Instant ,2014
- Neeraj Goyal, Accounting Software, Kalyani Publishers,2018.
- Neeraj Goyal and Rohit Sacheva, Tally with GST Applications, Kalyani Publishers,2018.
- Shraddha Singh, Tally ERP 9 (Power of Simplicity), V&S Publishers,2015.

Course Objectives:
- To facilitate students to understand the personality development and its importance in life.
- To develop self awareness, soft, hard and life skills for skill improvement.
- To learn about soft skills for betterment.
- To understand the team work culture in organizations and its importance in organization.
- To develop soft skills for effective performance in organization.

Course Outcomes: Students will be able to:
- Understand about personality aspects for positive development.
- Know about self through psychometric analysis.
- Apply language and communication skills for improvement of self.
- Develop leadership skills and negotiation skills.
- Bring change in the business through self development.

Unit – I: Introduction to Personality
Concept of personality, profile of a pleasing personality. Factors affecting personality. Test on the dimensions of personality: Openness, Conscientiousness, Agreeableness, Extraversion, and Neuroticism; concept of attitude: positive vs negative, ways to develop a positive attitude; caselets: comparison of positive vs negative attitude personalities. Concept of Motivation: Test on Maslow's need hierarchy to learn what motivates us.

Unit – II: Self Discovery (knowing yourself)
Creating self-awareness by undergoing various personality & psychometric tests such as SWOC Analysis, Johari Window, Transactional Analysis, Conflict modes; quotients such as Intelligence Quotient (IQ), Emotional Quotient, adversity quotient and spirituality quotient. Introspection and working on feedback from others for continual development. Skills need to be effective: (i) Soft Skills, (ii) Hard Skills, (iii)Life Skills.

Unit – III: Soft Skills at Individual level
Need for and scope of soft skills for a successful career. Need of soft skills at different levels: individual, team and organizational level. Soft Skills for individual Level: language Skills (including grammar & vocabulary); Communication skills including verbal, written and body language skills; discipline, concentration, time management, active listening, empathy, perseverance, stress management, critical thinking, creativity, etiquettes etc. skill based questionnaire administration for select soft skills.

Unit – IV: Soft Skills at team level: Interpersonal Skills
Need and scope of interpersonal skills. skills to develop: leadership skills, problem solving skills, managing conflicts, negotiation skills, building trust, coaching, providing feedback, dealing with difficult people etc. skill based questionnaire administration for select soft skills.

Unit –V: Soft Skills at organization level
Leading change, influencing skills, networking and relation skills, empowering others, partnering skills etc. Skill based questionnaire administration for select soft skills.

Suggested Readings:
- Barun K.Mitra, Personality development & Soft skills, Oxford, 2016.
- Virender Kumar, Personality Development, Kalyani Publishers, 2021
- Dr. Alex, Soft skills Know Yourself And Know The World, S.Chand, 2014
- Jeff Butterfield, Soft skills for everyone, Cengage Learning, 2010
- Alka Wadkar, Life Skills for Success, Sage, 2016
- Anjana Sen et. Al. Soft skills for workplace success, Sage, 2021

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA207: SUSTAINABILITY MANAGEMENT (Open Elective)

Course Objectives:
- To assess the future business models with on focus on sustainability.
- To facilitate students to understand how to assess changing aspects of business needs.
- To be able to develop an effective business models to face the challenges of eco-system.
- To understand the impact of environment and the policy decisions for sustainability.
- To see that optimum utilization of scarce resources and being a responsible individual.

Course Outcomes: Students will be able to
- Analyze eco-system and its impact on business practices.
- Develop new Business Models to face changing aspects of environment.
- Effective resource management with a focus on sustainability aspects.
- Bring the changes in organization by understanding external environment for sustainability.
- Develop forecasting ability for the future needs of Business.

Unit-I: Introduction to Sustainable
Introduction, need, importance, nature and scope, population growth, consumption pattern, public policy , perverse subsidies, market and technology failure, development planning failure, primary and deeper cause of unsustainability, relation to the sustainability transition.

Unit -II :Sustainability in new direction
Introduction, historical perspective, issues, conventional wisdom vs sustainability wisdom, enabling and motivating people to take action, changing behaviour of Individual, institutions, Society and Government.

Unit –III: Sustainable Business
Introduction, Socially responsible investing, responsible business model, value logic and practices, triple bottom line accounting(3BL), responsible organizational change, developing sustainable and responsible organization culture, Green Management.

Unit -IV: Sustainability in External Environment
Governance: sustainability and governance, government initiatives, alternative governance, climate governance, the sustainable consumption and production trichotomy, sustainable production, sustainable consumption, consuming differently, consuming less.

Unit –V: Responsible Management
Introduction, need for responsible management, principles of responsible management education, responsible individual learning, organizational culture, change and learning, types, socially responsible organizational learning, social movement learning, leadership for responsible organizational management.

Suggested References:
- Martin J. Ossewaarde, Introduction to Sustainable Development, Sage Texts, 2022
- John G. Cullen, Business, Ethics and Society, Sage Texts, 2022
- Michael Blowfield, Business and Sustainability, Oxford, 2021
- Pardeep singh, Pramit Verma, Daniela Perrotti and K.K. Srivastava, Environmental Sustainability and economy, Elsevier Science, 2021.
- Dr.deb Prasanna Choudary, Sustainability Management, Zorba Books, 2018.
- Chaudhery Mustansar Hussain, Juan F. Velasco-Munoz, Sustainable Resource Management Modern Approaches and Contexts (E Book), Elsevier Science, 2021

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA207: INTELLECTUAL PROPERTY RIGHTS (Open Elective)

Course Objectives:
- To understand the basic IPR aspects and its importance for overall development.
- To learn various components of Intellectual property Rights and its regime.
- To evaluate the basic patentability requirements, Design, Geographical Indication (GI), Plant Variety.
- To learn about elements, rights, licensing of patents.
- To learn the registration aspects and current trends of IPR.

Course Outcomess: Students will be able to
- Know the traditional knowledge and learn the fundamental aspects of Intellectual property Rights.
- Acquire knowledge on patents, patent regime, and basic patentability requirements.
- Assess knowledge on copyrights, trademarks, and its related rights and its registration aspects.
- Integrate Design, Geographical Indication (GI), Plant variety and layout design protection and their registration aspects.
- Evaluate the steps in fostering IP by the Government of India.

Unit -I: **Intellectual Property Rights**
Introduction and need for IPR, Kinds of IPR, traditional knowledge vs. IPR, territoriality of IPR, genesis of IPR in India, developed countries and third world countries, IP as an Instrument of development.

Unit -II: Copyright and Industrial Design
Concept and need for protecting copyright, authorship and ownership, copyrights in different domains, digital copyrights, exploiting concept of fair use.
Industrial Designs: Concept of industrial design, need for protection of industrial design, protecting visual features or an articles, design, shape, pattern, or ornament; layout designs of integrated circuits.

Unit -III: Trademark
Nature of trademark, rationale behind the protection of trademarks, subject matter of trademarks, kinds of trademarks, conflicts of trademarks with domain name.

Unit -IV: Patent
Concept of Patent, elements of patentability, non-patentable Inventions, rights of patentee: licensing, compulsory licensing; patent infringement, patent cooperation treaty, bolar provision-research exemptions.

Unit -V: Geographical Indication and Plant Varieties Protection
Geographical Indication: meaning, reasons for geographical Indication protection: origin, nature and indication of goods, geographical indication tags in India, difference between GI and trademarks.
Plant variety protection: Meaning, need for protecting plant varieties and farmers' rights, protection of new plant varieties in India**,** protection of plant varieties and farmers rights, union for protection of new varieties.

Suggested Readings:
- Adarsh Ramanujan Patent Law Cases and Materials: A Synthesis for India; Wolters Kluwer India Pvt. Ltd –2020.
- P. Narayanan, Law of Copyright and Industrial Designs, Eastern Law House –2017.
- Pandey Neeraj, Dharni Khushdeep; Intellectual Property Rights, Paperback – 2014.
- V K Ahuja, Intellectual Property Rights in India, LexisNexis, ISBN: 9789351433880, EDITION: 2nd, Vol 1, 2015.
- Venkateswaran & K.C. Kailasam, Trade Marks and Passing-Off; LexisNexis, 2015.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – II
22BBA207: QUALITY MANAGEMENT (Open Elective)

Course Objectives:
- To understand various concepts, systems in a business application of Quality Management.
- To learn the need and use of sampling techniques for quality management.
- To evaluate the various quality aspects like quality management system, norms and risk assessment.
- To identify the reasons for failure model, effect and critical analysis.
- To examine the role of quality management in better customer satisfaction.

Course Outcomes: Students will be able to
- Understand quality concepts and its importance in business.
- Adopt the sampling techniques for quality management.
- Know Quality Standards in an organization.
- Critically analyze the FMEA/FMECA models.
- Apply the quality management system for customer satisfaction.

Unit - I: Quality - Conceptual Frame work
Introduction to Quality management- definition & objectives of quality management according to TQM (As defined in ISO 9000) –basic terminology related to quality management –accuracy and precision – dimensions of quality management – methods of generating ideas for quality management – systems of quality control :- statistical, managerial, total quality control- quality in service organization.

Unit – II: Quality – Sampling Techniques
Introduction- desirable characteristics of sampling – merits of sampling inspection – limitations. methods of sampling for inspection random sampling, non- random sampling – factors affecting the selection of sample for inspection –sampling : - single sampling , double sampling , Multi sampling .

Unit – III: Cost of Quality
The quality functions - Information quality Issues-quality management system-benefits of ISO registration - ISO 9000: quality management system – history & benefits of ISO 9000 Quality systems - ISO 14000: environmental management system & history and evaluation -   ISO 31000: Risk management – An over view - quality awards.

Unit - IV: Failure Model, Effect, and Critical Analysis
Introduction - FMEA/FMECA an outline-Failure Mode and effective Analysis - FMEA Documentation- The process of FMEA Documentation- planning FMECA: - ground rules and assumption, analysis approach, level of analysis.

Unit - V: Quality management – Customer satisfaction
Introduction – Quality and customer satisfaction - Role of quality management in customer satisfaction – Customer satisfaction Measurement – customer perception of quality – quality assurance, audit, & quality survey –determinants of customer satisfaction.

Suggested Readings:
- Dale H. Besterfeild, Carlon Besterfeild, Total Quality Management, Pearson Education, 2015
- Sridhara Bhat, Total Quality Management Texts and Cases, Himalaya Publications, 2015.
- Poornima M Charantimath, Total Quality Management, Pearson Education, 2015.
- N.V.S Raju, Total Quality Management, Cengage Learning, 2014.
- Kanishka Bedi, Quality Management, Oxford Publications, 2015.
- Dr. S. Kumar, Total Quality Management, University Science Press, 2015.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – III
22BBA301: BUSINESS ENVIRONMENT

Course Objectives:
- To understand the significance, nature and concepts of Business Environment.
- To get a knowledge about industry and LPG policies and regulations.
- To understand the Fiscal and Monetary policy of India.
- To understand the trade policy, Balance of payment, EXIM policy.
- To enable students to examine and evaluate business in International Environment.

Course Outcomes: Student will be able to
- To understand micro and macro-economic environment and its impact on business.
- To Understand the industrial policy and LPG.
- To analysis of a fiscal and monetary policies and its impact on business.
- To learn about EXIM policy, BOPs, New economic policy.
- To understand the global trades an dits impact on business.

Unit – I: Introduction To Business Environment
Significance, nature and scope of Business Environment – Theoretical Framework of Business Environment: - 1. Micro- Environment 2. Macro - Environment 3. Social, Economic, Cultural, Ecological and Political Factors influencing Business.

Unit-II: Industry Policy And Regulation
Introduction -Objectives of Industrial Policy - Industrial Policies: - 1. Industrial Policy 1948, 2. Industrial Policy 1956, 3. Industrial Policy 1977, 4. Industrial Policy 1991, 5. LPG Policy: a. Liberalizations b. Privatizations c. Globalizations.

Unit –III: Fiscal & Monetary Policies
Public revenues, public expenditure, public debt, development activities financed by public expenditure, an evaluation of recent fiscal policy of Government of India – Highlights of Budget - Functions of the Reserve Bank of India- RBI and Monetary Policy: - Factors affecting Money Supply in India-Monetary policy instruments: - 1. Cash Reserve ratio (CRR) 2. Statutory liquidity ratio (SLR), 3. Bank rate.

Unit – IV: India's Trade Policy & Balance of Payments
India's Trade Policy – Magnitude and direction of Indian International trade, bilateral and multilateral trade agreements, EXIM Policy, Role of EXIM Bank. Balance of Payments: Structure, Major components, causes for dis-equilibrium in Balance of Payments, Impact of New Economic Policy on Balance of Payments.

Unit – V: World Trade Organization (WTO)
Nature and scope - organization and structure – Role and functions of WTO in promoting world trade – Principles followed- Agreements reached in the Uruguay round including TRIPS, TRIMS and GATS, Disputes settlement mechanism- Dumping and Anti-dumping measures – Critical review of WTO functioning.

Suggested Readings: -
- Dr. V. C. Sinha, Ritika Sinha (eBook), Business Environment, SBPD Publications,2020
- Bhall, V.K. and S. Shivaramu: International Business Environment and Business, Anmol, New Delhi, 2003.
- Vivek Mittal: Business Environment, Excel, 2009.
- Francis Cherunilam: International Business Environment, Himalaya, 2008.
- David Miles and Andrew Scott, Macro Economics and The Global Business Environment, Wiley, 2007.
- Saleem, Shaikh, Business Environment, Pearson Education India, 2011

Course Objectives:
- To understand creation of opportunities, resources, and requirements for Start-up.
- To evaluate the financial resources and role of venture capital in startup companies.
- To get the knowledge about legal and regulatory resources required for startup companies.
- To know about the survival and various stages of startup.
- To understand the real options, exit strategies and liquidation process of companies.

Course Outcomes: On successful completion of this course, the students will be able:
- To understand the environment and ecosystem for startup.
- To evaluate the various capital and financial resources for startups.
- To analyze the legal and regulatory framework for startups.
- To estimate the sustainability and growth prospects.
- To deal with failures and winding up process of startups.

Unit I: Start-up opportunities
The New Industrial Revolution – Innovation ecosystem- Business Start-up – Ideation to Venture creation - The rise of the start-ups – Lean Start-up- The Start-up Equation Start-ups in India. Incubation centers- Leading Incubation Centers in India.

Unit II: Capital and Financial resources for Start-ups
Identifying Start-up capital Resource requirements - estimating cash requirements - Develop financial assumptions- The cost and process of raising capital – Role of Venture Capitalists - Equity Funding – Start-up financing matrix.

Unit III: Legal and regulatory resources for Start-ups
Risk analysis, The Legal Ecosystem for start-ups- Approval for New Ventures-Taxes or duties payable for new ventures-funding start- crowd funding- strategic alliances-technology licensing-regulatory assessments.

Unit IV: Start-up Survival and Growth
Stages of growth in a new venture- Growing with the market - Growing within the industry- Venture life patterns- Reasons for new venture failures Scaling Ventures –- Leadership succession - Valuation of start-ups.

Unit V: Start-ups as real options, or Harvest and Exit
Start-ups as real options-implementing real option value for start-up-Dealing with Failure: Bankruptcy, Exit Strategies-Selling the business - Cashing out but staying in-being acquired- Going Public (IPO) – Liquidation.

Suggested Readings:
- Rajat Kanti Baisya, Managing Start-ups for Success Entrepreneurship in Difficult Times, Taylor & Francis, 2021
- Vijaya Kumar Ivaturi and Meena Ganesh: The Manual for Indian Start-ups: Tools to Start and Scale-up Your New Venture- Paperback –24 May 2020.
- Eric Ries -The Lean Start-up: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses- Hardcover – Illustrated, 13 September 2011.
- S. R. Bhowmik& M. Bhowmik, Entrepreneurship, New Age International, 2007.
- Steven Fisher, Ja-nae' Duane, The Start-up Equation -A Visual Guidebook for Building Your Start-up, Indian Edition, Mc Graw Hill Education India Pvt. Ltd, 2016.
- Donald F Kuratko, Jeffrey S. Hornsby, New Venture Management: The Entrepreneur's Road Map, 2e, Routledge, 2017. 6. Vijay Sathe, Corporate Entrepreneurship, 1e, Cambridge, 2009.

Course Objectives:
- To understand the basis, goals of financial management.
- To know the value of money, estimation of cash flows.
- To understand the financial planning and forecasting.
- To understand the sources of financing and role of financial markets.
- To get the knowledge about capitalization and impact of working capital management.

Course outcomes:
- To understand the basis and goals of an organisation.
- Evaluate the time value of money estimation of cash flows.
- To apply capital budgeting tools in the business.
- To evaluate the various sources of finance available in the market.
- To know the performance of current assets and current liabilities in business.

Unit-I Introduction to Financial Management
Introduction, Meaning, Definition and types of finance, Scope and objectives of Financial Management, Profit Maximization and wealth Maximization, area of finance, finance within an organization, finance vs economics vs accounting.

Unit -II Time value of money
Introduction, need of time value of money, future value-of a single cash flow, annuity, sinking fund, Present value-single cash flow and annuity, perpetuity, uneven cash flows, growing annuity, growing perpetuity, value of an annuity due.

Unit -III Financial Planning and Strategy
Introduction, Strategic Decision making and planning, Interface between Financial planning and strategic management, financial forecasting, basics of capital budgeting, capital budgeting decisions-Payback period, Accounting Rate of Return and Net Present Value.

Unit -IV Sources of Financing
Introduction, Role of Financial Markets, Financial Markets: Segments, Product and Services, Long Term Source of finance-Equity, Domestic Capital Markets, Global Depository Receipts, Exist Options, Long Term Source of Finance, internal finance and loan financing.

Unit-V Working Capital Management
Introduction, Meaning of Working Capital, concept of working capital, nature of working capital, planning of working capital, principles of working capital management, factors affecting working capital management, working capital and operating cycle, net working capital and gross working capital.

Suggested Readings:
- C. Paramasivan, T. Subramanian, Financial Management, New age international (p) limited,2009.
- I M Pandey, Financial Management, 12 e, Pearson Publications, 2021.
- M.Y Khan, P K Jain, Financial Management-Text and Problems, 8e, Mc Graw Hill,2019.
- Prasanna Chandra, Financial Management, 10e, Mc Graw Hill,   2019.
- Eugene F. Brigham Michael C. Ehrhardt, Financial Management, Cengage Learning, 12e, 2012.
- Arindam Banerjee, Financial Management, Oxford Publications, 2016.

Course Objectives:
- To understand the nature, objective and application of business research.
- To identify the research problem and framing of research hypotheses of business problem.
- To learn about implication, characteristics and designs of different sampling techniques.
- To understand the procedure of hypotheses testing and the types of errors occur during the test.
- To understand the concept of report writing and interpretation for decision making.

Course Outcomes:
- To analyze different perspectives of research in business areas.
- Able to identify, define and develop the research problem of the business.
- Adopt the good sampling design for better data collection.
- To frame the proper hypotheses and statistical test for problem solving.
- To write the technical and business reports on the basis of data analysis and interpretation.

Unit-I: Introduction To Business Research
Business Research- Meaning and definition – Different perspectives of Research –Nature and scope & Objectives of Research, - Motivation of Research, -Types of Research, - Significance of Research, - Application of research in Business Areas: -Personal & HRM, Marketing functions, financial functions, Production and operation management, Cross – functional Research-Limitations of Research.

Unit-II: Fundamental of Research Frame Work
The Research Process-Management of Dilemma-Understanding conceptual background of Research- Literature survey. Identifying the research GAPS – Research Problem- Select the research Problem – Necessity of defining the Research Problem – Scope and Limitations-Identification of Research Variables –Formulating the research Hypotheses-Developing Research Proposal-Data analysis and interpretation of Results.

Unit-III: Sampling Techniques
Sampling Design -Census and Sample Survey – Implications of a Sample Design -Steps in Sampling Design – Criteria of Selecting a Sample –Sampling Procedure – Characteristics of a Good Sample Design –Universe, Population, Sample units, Sample, Sample size, Sampling Error – Different Types of Sampling Techniques – Probability Sampling-Non-Probability sampling.

Unit-IV: Hypothesis Testing
Hypotheses -Testing of Hypotheses- Null Hypothesis and Alternative Hypothesis – (Type –I and Type- II Error) of Testing of Hypotheses – Procedure for Hypothesis Testing: – Setting up of a hypothesis, setting up suitable significance level, Determination of test of Statistical tools, Determination of critical region, computing the value of test-statistics, Criteria for accepting and Rejecting Null Hypothesis.

Unit-V: Report Writing
Significance of Report Writing- Different Steps in writing Report -Layout of the Research Report – Types of Research Reports: - Brief reports, Detailed Report, Technical Report, Business Reports – Report preparation and presentation-Report structure: - Preliminary section, Main Report, Interpretation of Results and suggested recommendations-Limitation of the study-End note and Precautions for Writing good Research Reports.

Suggested Readings:
- Donald R Cooper, Pamela S Schindler, J K Sharma, Business Research Methods, 11e,Tata Mc Graw Hill Education , 2019.
- William G. Zikmund, Barry J. Babin, Jon C. Carr, Atanu Adhikari, Mitch Griffin, Business Research Methods, Cengage Learning India Pvt Ltd, 2016.
- Deepak Chawla, Research methodology concept and cases, second edition Vikas publications -2016.

- Uwe Flick, An Introduction to Qualitative Research 5e Sage/text -2014
- Naval Bajpai, Business Research Methods, Pearson Publications, 2e 2017.
- S.P. Gupta, Statistical Methods, Sultan Chand &Sons, 2018.

Course Objectives:
- To understand the basic concepts and role of Logistics and supply chain management in business.
- To understand the supply chain drivers and its role in redefining value chain of Firms.
- To develop skills for planning, designing and operations of supply chain Management.
- To know about the various parties in logistics, strategies and outsourcing aspect.
- To understand the Supply chain management systems and its integration with enterprise resource planning and Customer Relationship Management.

Course Outcomes:
- The fundamentals of elements and functions of supply chain.
- To know about the stages and process of supply chain, its drivers and best practices.
- To apply performance management tools, issues and challenges of global supply chain management.
- To analyze the warehouse facilities, parties in logistics.
- Analyze the linkage between Supply chain management and CRM, green Supply chain management practices.

Unit I: Logistics
Evolution, Objectives, Components and Functions of Logistics Management, Distribution related Issues and Challenges; Gaining competitive advantage through Logistics Management, Transportation- Functions, Costs, and Mode; Network and Decision, Containerization, Cross docking.

Unit II: Supply Chain: Concepts, Objectives of a Supply Chain, Stages of Supply chain, Value Chain Process, Cycle view of Supply Chain Process, Key issues in SCM, logistics & SCM, Supply Chain Drivers and obstacles, Supply chain strategies, strategic fit, best practices in SCM, Obstacles of streamlined SCM.

Unit III: Supply Chain Performance
Bullwhip effect and reduction, Performance measurement: Dimension, Tools of performance measurement, SCOR Model. Demand chain management, Global Supply chain- Challenges in establishing Global Supply Chain, Factors that influences designing Global Supply Chain Network.

Unit IV: Warehousing
Concept and types, Warehousing strategy, Warehouse facility location & network design, Reverse logistics, Outsourcing: Nature and concept, Strategic decision to Outsourcing, Third party logistics (3PL), Fourth party logistics(4PL), Fifth Party logistics (5PL), Sixth Party Logistics (6PL).

Unit V: Supply Chain and CRM
Concepts, Linkage, IT infrastructure used for Supply Chain and CRM, Functional components for CRM, Green supply chain management, Supply Chain sustainability.

Suggested Readings:
- Chopra, Sunil, Meindl, Peter and Kalra, D. V.; Supply Chain Management: Strategy, Planning 1. and Operation; Pearson Education.
- Altekar, Rahul V.; Supply Chain Management: Concepts and Cases; PHI Learning Reference.
- Ballou, Ronald H.; Supply Chain Management; Pearson Education.
- Sahay, B.S.; Supply Chain Management; Macmillan.
- Ballou, R.H. Business Logistics Management. Prentice-Hall Inc.
- Bowersox D.J. Closs D. J, Logistical Management, McGraw-Hill, 1996

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – III
22BBA306: SPREADSHEET LAB

Course Objectives:
- To understand the application of Statistical tools in Excel /Spread sheets.
- To enable the students to work with data using templates.
- To enable the students to work with data using formulae and functions.
- To discuss the results of data analysis for better decision-making.
- To enable the students to work in a macro's environment and present data in a visually appealing manner.

Course Outcomes: Students will be able to
- Familiarize with the features of the spread sheet.
- Create and use templates to analyze the data in an efficient manner.
- Apply appropriate formulae and perform various functions on the data for better decision making.
- Apply statistical tools and techniques to the data and analyze the results.
- Work in macros environment and create visual representation in the form of charts/pivots/dashboards
.
Unit - I: Introduction to Statistical Packages - MS - EXCEL
Introduction, uses, functions and features of Statistical Packages, Getting started with excel, Highlights and main functions: Home, Insert, page layout, formulas, Data, review, view, add-inns, using help function, Customizing the Quick Access Toolbar.

Unit - II: Creating and Using Templates
Working with Data: Entering, Editing, Copy, Cut, Paste, Paste Special, Formatting Data and Using the Right Mouse Click, Saving, Page Setup, and Printing, Using Headers and Footers, Manipulating Data, using Data Names and Ranges, Filters and Sort and Validation Lists.

Unit - III: Data from External Sources
Using and Formatting Tables, Basic Formulas and Use of Functions, Managing, Inserting, and Copying Worksheets, Securing the Document, Advanced Formulae and Function – VLook Up, HLook Up, Conditional Logic, Financial formulae, Pivot Tables and Pivot Charts.

Unit - IV: Data Analysis
Tabulation, bar diagram, Multiple Bar diagram, Pie diagram, Measure of central tendency: mean, median, mode, Measure of dispersion: Variance, Standard deviation, Coefficient of Variation. Correlation, Regression lines.

Unit - V: Macros Operation & Interactive Excel Dashboard
Introduction to Macro Security, Recording a Macro, Assigning a macro to a button; Running a macro upon opening a workbook; Inspect and modify a macro; Creating an interactive excel dashboard – Pivot Chart Analyze

Suggested Readings:
- D P Apte : Statistical Tools for Managers USING MS EXCEL, Excel, 2012.
- Excel Functions and Formulas, Bernd Held, 2015
- Bruce Bowerman, Business Statistics in Practice, TMH, 5/e 2012.
- Getting Started with Excel Macros, Wiley India
- Excel Dashboards and Reports for Dummies, A Wiley Brand
- Business Data Analysis using Excel, David Wigham, Oxford.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – III
22BBA307: BUSINESS DEVELOPMENT PLAN (LAB)

Course Objectives:
- To learn about a business plan, its elements and fit.
- To learn the importance of a marketing plan while preparing a business plan
- To develop an understanding of financial analysis while preparing a business plan
- To develop an understanding of strategy while preparing a business plan
- To learn the importance of organizational structure and legal aspects while preparing the business plan.

Course outcomes:
- To prepare an outline of a business plan by evaluating the business and market forces in which the business is set to operate.
- To evaluate the marketing economics of the business and incorporate it into a business plan.
- To be able to analyze the basic financial aspects of a business and incorporate it into a business plan.
- To assess the strategic aspects of a business.
- To be able to plan for the required organizational structure and plan for the legal requirements.

Unit – I: Introduction
Business Plan, write a business plan Issues beyond the plan; Self-Evaluation; Describe business; Need-Gap Analysis, Taste, Trend and Technology: Future prospects of business.

Unit – II: Marketing plan
Resource issues and economic systems; Customer Analysis; Market Analysis; Market Demand; Market supply and price; Market type and market forces (Competition).

Unit – III: **Financial Analysis**
Required investment for your business; Important Assumptions; Break-Even Analysis; Projected Profit and Loss; Projected average cost of sales; Projected Balance Sheet; Projected Cash Flow; Long Term Plan.

Unit – IV: Strategic Implementation
Strategy Pyramids; Value Proposition; Competitive Edge; Marketing Strategy; Sales Strategy.

Unit – V: Organization Plan and Personnel Plan
Organizational Structure; Organizational Budget; Personnel Plan; Plan for Legal Details

Suggested Readings:
- Mike McKeever: How to Write a Business Plan – 10th Edition, Nolo
- Lynn M. Pearce: Business Plan Handbook, GALE CENGAGE Learning
- Hurdle – The Book on Business Planning, Tim Berry
- Barringer, B.R.: Preparing Effective Business Plans, An Entrepreneurial Approach, 2nd Edition Barringer Solutions Manual
- Sam A. Brown: Writing a Business Plan That Works, 2015

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – III
22BBA307: SOCIAL RESPONSOIBILITY REPORT IN SUMMER VACCATION

Course Objectives:
To familiarize with social problems of a selected Institution/ Organization /Government sectors by collecting data, analyzing, report preparation and presentation.

Course Outcomes:
Student will be able to make an attempt to identify the problems in the project and provide alternative choices to the selected Institution/ Organization/ Government sector.

Every student of this BBA-Analytics Programme needs to identify a social problem in selected area. The student has to gather data, both primary and secondary, identify the problem faced by an institution/ Organization/ Government sector/ School/ Panchayath etc. Analyze the problem and prepare a report based on the data collected and its impact on society.

Guidelines:
The report should consist of:
Chapter 1: Introduction
Chapter 2: Company/ Industry Profile
Chapter 3: Methodology-Need, Scope, objectives, Statistical Tools and Data source.
Chapter 4: Data analysis
Chapter 5: Limitations, Findings, Suggestions, Bibliography.

22BBA401: BUSINESS LAWS

Course objectives:
- To understand the about Agreements and contract in business.
- To understand Classification of contracts, Modes of Discharge of Contracts.
- To understand the significance of the Sale of Goods Act.
- To understand various provisions related to The Negotiable Instrument Act, 1881.
- To know the rules related to Negotiable Instruments.

Course Outcomes:
- Learn the basics of commercial contracts, rules of Consideration.
- To analyze Consent & Free Consent, different types of Agreements and Contracts, different Modes of discharge of Contracts.
- Learn and adopt the rules regarding the Contract of Sale.
- Students would learn various provisions related to The Negotiable Instrument Act, 1881 with Amendment.
- Adopt the rules related to Negotiable Instruments in Practices.

Unit-I: Contract
Introduction to contract, sources of law, law of contracts, The Indian contract Act,1872, essential elements of valid contract (under section 10), Kinds of contract, Offer and Acceptance- meaning, communication of offer, acceptance and revocation, Consideration-need of consideration, legal rules of consideration and free consent.

Unit-II: Discharge, Breach, Void and Quasi Contract
Discharge of contract, discharge y performance, discharge by agreement, discharge by lapse of time, discharge by operation of law, discharge by Impossibility of performance, breach of contract, remedies of breach of contract, void agreement, quasi contract, contingent contract.

Unit –III: Contract of Sale
Contract of sale of goods, essentials of a contract of sales, Difference between sale and agreement to sell, difference between as sale and a Hire-purchase agreement, Definition of goods, contract of sales and contract for work and labour, sale and bailment, modes and forms of contract of sale, price, modes of fixing price.

Unit-IV: Introduction to Negotiable Instruments Act
Definition of negotiable Instruments, features of a Negotiable Instruments, Promissory Note, Bills of Exchange, Cheque, Difference between a cheque and a Bill of Exchange, Difference between a cheque and a Promissory Note, Difference between Promissory note and bills of exchange.

Unit-V: Endorsement and Crossing of cheque
Negotiable Instrument, Distinction between Negotiation and assignment, delivery in negotiation, endorsement or Indorsement, other kinds of crossing, types of cheques, consequences in case of post-dated cheques.

Suggested Readings:
- Indrejeet Dagar and Anurag Agnihotri, Business laws: Test and Problems, Sage Texts, 2020.
- SS Gulshan and Ravi Akula, Business Law Regulations, excel books,2e, 2009.
- Satish B Mathur, Business Law, Tata McGraw Hill.
- K.R. Bulchandani, Business Law for Management, Himalya Pulications, 4e.
- S.N. Maheshwari and S.K. Maheshwari, A Manual of Business Law, Himalaya Publishing House, 6e, 2015.
- Dr. B. K. Singh, Dr. Angad Tiwary , Business Law, SBPD Publications, 2021.

Course Objectives:
- To understand the functions, role, objectives and principles of cost accounting.
- To learn the cost object, cost unit, types and characteristics of cost accounting.
- To understand the capital project planning cycle, work breakdown and scheduling techniques.
- To learn the cost control techniques and Pareto's law.
- To get the knowledge about material costing, labour costing and overhead costing for better cost management.

Course Outcomes:
- To apply the cost accounting principles and methods in business.
- To adopt the cost concepts and classify the cost centres for decision making.
- Able to schedule, plan and estimation the of cost in projects.
- Adopt different cost control techniques, time control and cost control cycle.
- Able to analyse the cost incurred towards material, labour and overheads and its management.

Unit-I: Overview of Cost Management
Introduction, Cost Accounting, Cost Accounting and Cost Accountancy, Functions, Role, Objectives, Advantages, Principles, Importance of cost accounting, Classification of cost accounting.

Unit-II: Cost Concepts
Business and Cost Concepts, Cost of Product, cost, expenses and loss, Features of cost, cost object, cost unit and cost centre, types of cot centres, classification of costs, costing principles, components of Total Costs, Types of Costing System, Methods of Costing, Characteristics of Cost Information.

Unit-III: Cost Plan
Capital project overview-the planning cycle, types of projects, project organization, the work breakdown structure, scheduling-project duration, the bar chart, process scheduling, network planning, precedence diagramming, resource planning, Capital Cost Estimating-estimating qualities, range estimating, estimating techniques.

Unit-IV: Cost Control
Cost collection-basic accounting, cost vs cash, quantitative cost collection, Cost Control System-Definition and Concepts, the control cycle, objectives and requirements, cost information flow, Time control-scheduling Control system, Resource Levelling, Conventional Cost control, Pareto's Law, Budgeting and Trending, Cost/Schedule Integration, the earned value concept, fast tracking.

Unit-V: Elements of cost
Cost of Materials-Introduction, Scope of material costing, essential of material control procedure.
Costing for Labour- Introduction, labour cost, classification of labour costs, labour cost records, methods of remuneration. Overheads-Direct expenses and Indirect expenses, Limitations of Direct expenses, Overheads, classification of Overheads.

Suggested Readings:
- Paresh Shah, Management Accounting, Oxford,2e,2022.
- MN Arora, Cost and Management Accounting, Vikas Publishing House Pvt Ltd,11e,2021.
- S.P. Jain &K.L. Narang, Cost and Management Accounting, Kalyani Punlihers,2018
- Mohammed Hanif, Cost and Management Accounting-I, Tata Mc Graw Hill,2018
- Kurt Heinze, Cost Management of Capital Projects, CRC Press, 2017.
- Dr. B. K. Mehta, Cost And Management Accounting , SBPD Publications, 2021.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – IV
22BBA403: QUANTITATIVE ANALYSIS

Course objectives:
- To understand the nature, scope and application of operations research in business problem.
- To learn the formulation and application of LPP in different areas of business.
- To understand the concept of transportation and feasible solutions used in solving problems.
- To get the knowledge about different methods used in problem solving like-Hungarian and Travelling salesman.
- To understand the decision-making theory, game theory for problem solving.

Course Outcomes:
- To adopt the quantitative and qualitative techniques in better decision making.
- Able to solve business problems using the data graphically using LPP.
- To find feasible solutions to problem using various models.
- To solve the assignment problems using models.
- To apply decision theory and game theory for decision making in different conditions.

Unit - I: Introduction Quantitative analysis
Nature and scope of Operations research: Applications of OR in different Managerial areas: - Production and operations, - Technology management, HR, Marketing, Financial and other areas of Business - Problem solving and decision making, Quantitative and qualitative analysis.

Unit - II: Linear Programming Method
Formulation of Linear Programing Problem - Applications areas of LPP, - Formulation of LPP for different areas, solving of LPP by Graphical Method: Extreme point method, simplex method LPP, Limitations of LPP.

Unit - III: Transportation Problem
Mathematical Model of transportation problem, Methods for finding Initial feasible solution: Northwest corner Method, Least Cost Method, Vogel's approximation Method, Test of optimality by Modified Distribution Method (MODI),- unbalanced transportation problem - Degeneracy and its resolution.

Unit - IV: Assignment Model
Hungarians Method for solving assignment problem, variations of assignment problem: Multiple Optimal Solutions, Maximization case in assignment problem, unbalanced assignment problem, travelling salesman problem.

Unit - V: Decision Theory
Introduction, ingredients of decision problems. Decision making – under uncertainty, cost of uncertainty, under risk, under perfect information, decision tree, construction of decision tree.
Game Theory: Introduction to Game theory, Game with Saddle point, Value of the Game without saddle point. Solving game by Graphical method. Rule of Dominance property in Game theory.

Suggested Readings:
- T.N. Badar Barry Render, Ralph M. Stair, JR. Michael E. Hanna, Trevor S. Hale, Quantitative Analysis for Management, 13e, 2022.
- S.D. Sharma, Operations Research, Kedarnath Ramnath and Company.
- R. Pannerselvam, Operations Research, Prentice Hall International, 3e,2012.
- J.K. Sharma, Operations Research: Theory and applications, 5e, Macmillian, 2013.
- Anderson, Sweeney, Williams, Camm, Martin, Quantitative Methods for Business, 12e, Cengage Learning, 2013.
- Steve Humble, Quantitative Analysis of Questionnaires Techniques to Explore Structures and Relationships, Taylor & Francis, 2020.

Course Objectives:
- To learn the concept, importance, advantages of E-Business.
- To understand the different hardware, software and applications in E-Business.
- To get the knowledge about procurement and distribution in both online and physical conditions.
- To understand the e-payment system and challenges.
- To learn the e-marketing strategies in B2B, B2C models.

Course Outcomes:
- To apply the e-business technologies in business.
- To understand the technologies applied in online business.
- To manage the business and operations through electronically.
- To analyse the various e-payments for better financial decision making.
- To market the product/service on the e-platform.

Unit I: Introduction
Concept of e-business; Nature, scope, and impact of e-business technologies; Difference between e-business and e-commerce; History and development of e-business; Advantages of e-business; Business model for e-products and e-services; Contribution of e-business technologies to economic growth, market, competitiveness, and productivity.

Unit II: Technologies in e-business
Introduction; e-business technologies - hardware, e-business software applications, internet and World Wide Web; Database management system; e-business security; Online payment technology; IT/IS evaluation and e-business; Social consequences of e-business technologies.

Unit III: E-Business and Operations Management
Difference between purchase and procurement; Market solutions - sell-side, buy-side, and market place; Integration of product catalogue; Procurement service providing. **Online Distribution** Components of a distribution system; Characterization of online distribution; hybrid distribution networks; Model for electronic software distribution.

Unit IV: E-Payments
E-payment systems – An overview. B to C payments, B to B payments. Types of E- payment system – Credit card payment, debit cards, accumulating balance, online stored value payment systems, digital cash, digital (electronic) wallets, agile wallet, smart cards and digital cheques. Secure Electronic Transaction (SET) protocol. RFID Concepts.

Unit V: E-Business Marketing Technologies: E-Commerce and marketing B to B and B to C marketing and branding strategies. Web transaction logs, cookies, shopping cart database, DBMS, SQL, data mining, CRM (customer relationship Management) system – permission marketing, affiliate marketing, viral marketing.

Suggested Readings:
- Murthy CSV: "E. Commerce – concepts, models and strategies" Himalaya Publishing House Pvt. Ltd, 2015.
- Reynolds, E-Business A management perspective, Oxford University Press, New Delhi, 2010.
- Chan, H., Lee, R. Dillon, T., and Chang, E. E-Commerce: Fundamentals and Applications, John Wiley & Sons, New Delhi, 2001.
- Kenneth C. Laudon, Carol Guercio Traver, E-Commerce 2020-2021: Business, Technology and Society, Global Edition, Pearson Education, 2020.
- Colin Combe, Introduction to E-Business, Taylor & Francis, 2012
- O'Brien, J. A., Marakas, G. M., and Behl, R. Management Information Systems. Tata McGraw Hill, New Delhi, 2002.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – IV
22BBA405: BUSINESS TAXATION

Course objectives:
- To learn the importance, types and sources of business taxes.
- To understand the residential status and provisions for income tax.
- To understand the income from salary and other source of an individual.
- To learn the Goods and Sales Tax applicable to business and amendments.
- To understand the Services and Central Excise imposed into a global trading.

Course Outcomes:
- To apply principle of taxation to business.
- Analyze the income earned during the assessment year by House property and business.
- Analyze the income earned from salary and other sources for tax filing purpose.
- Able to adopt the Goods and Sales Tax to the selected business.
- Able to impose the Service and Central Excise Tax on export and import business.

Unit–I: A Framework for understanding Taxes
Introduction, Constitution and Taxation, taxes importance in decision Making, types of taxes, Basic principles of Taxation, Sources of Tax laws, important principles and concepts in tax law, SAVANT Framework.

Unit -II: Income Tax
Introduction to Income tax, Persons to whom the act applies, Residential status, Previous year and assessment year, heads of Income, exemptions. Income from House Property-Annual value, annual value of residential Property, Deduction from annual value. Income From Business: Revenue expenditure, time and cost acquisition, Special Provisions.

Unit-III: Income from Salary and Other Sources
Salary and dearness allowances, House rent allowances, Retirement benefits, Salary and Income Tax, Exemptions from the act, Dividend and Interest, Hiring of Plant and Machinery, gift and inheritance.

Unit-IV: Goods and Sales Tax
Introduction to indirect taxation, sales, work, service contract, sales and hire purchase, sales by clubs and Societies, scope of 'Goods'. Dealers, Charges of sales tax, Liability to pay tax, Central tax.

Unit-V: Service and Central Excise tax
Scope of 'Service Tax', Charge of Service Tax, Taxable value, Service provider as agent, services and sale of goods, charges of service tax, Manufacturer or produced Goods, Scope of 'Goods', Inclusion in the tariff act, manufacturer, charge of customs duty, cargo import, Import of Baggage, Import through Courier and Import by Post.

Suggested Readings:
- John E. Karayan &Charles W. Swenson, Strategic Business Tax Planning, Wiley, 2e, 2007.
- Akhileshwar Pathak & Savan Godiawala, Business Taxation, Tata McGraw Hill,3e,2014
- V.P. Gaur & D.B Narang, Income Tax Law and Practice, Kalyani Publishers.
- Dr. Preeti Rani Mittal, Dr.nshika Bansal, Income Tax Law and Practice, Sultan Chand & Sons, 2021
- Dr. H.C. Mehrotra, Dr. S.P. Goyal, Problems and Solutions in Income Tax, Sahitya Bhawan Publications, 2020.
- Dr. Vinod K. Singhania & Dr. Kapil Singhania, Direct Taxes Law & Practice, Taxman, 2009.
- B.B. Lal, Income Tax, Pearson Education, 2010.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – IV
22BBA406: MULTIMEDIA LAB

Course Objectives:
- To learn about the basics of multimedia used and its issues.
- To understand the graphical presentation of data and different file formats.
- To learn the audio representation and image compression.
- To learn the video recording, frame sequencing and display speed.
- To understand the concept of animation, effect of animation, photoshop and adobe flash.

Course Outcomes:
- To adopt the users of multimedia for solving issues for distributed multimedia system.
- To analyse the data using graphs and save it in different file formats for better image presentation.
- Able to adopt the audio and time-based media representation for the analysis of data.
- Adopt the video creation for the presentation of data with a specific speed and save the file in different formats.
- Able to use the animations, background design, story board and 2D digital animation sound in presenting the data.

Unit-I: Multimedia Overview
Users of Multimedia Information, the Convergence of Computers, Communications and Entertainment Products, Architecture and Issues for Distributed Multimedia Systems.

Unit-II: Graphics and Data Representations
Graphics: - 1 Bit image, 8 Bit Gray level Image, 24-bit Colour Image, Bit Colour Image. Popular File formats: GIF, JPEG, PNG, TIFF, Window BMP, WMF, EXIF, PTM.

Unit-III: Media and Time
Digital Audio Representation and Processing, Video Technology, Digital Video and Image Compression, Time – based Media representation and Delivery.

Unit-IV: Video Creation
Video presents moving pictures and typically combines images and sound for a multimedia experience. Technology records, synthesizes, and displays images as frames in such sequences at a fixed speed that makes the creation appear as moving; this is how we see a completely developed video. To create a video without any interruption, video device must display 25 to 30 frames/second. • Common file types for Video include AVI, WMV, FLV, MOV, MP4.

Unit-V: Animation
History of Animation, Composition, Perspective, Background Design, Effects Animation1 Introduction Storyboard, Storyboard Layout. Assisting Animation, Color Theory, Effects Animation2, Storyboarding Final Film Concept Art Direction, Animation Final Film Project, Layout Recap, Premiere, Sound Breakdown. Digital Ink and Paint, 2D Digital Animation Sound, Photoshop, Adobe flash, Toon Boom.

Suggested Readings
- Practical Photoshop CS6, Level 1 by Barbara Zukin Heiman, Donald Laird, Corrine Haverinen, Windsor Green, & Marilyn P. Kelly Practical Photoshop.
- Project Flash MX by Nat Gertler, Thomson Delmar Learning Publication.
- Comdex Multimedia and Web Design Course Kit, DreamTech, Vikas Gupta, ISBN 13: 788177229196
- The Animator Survival Kit by Richards Williams
- Basic Drawing Techniques by Richards Box
- Drawing and Anatomy by Victor Petard

22BBA407: FIELD BASED PROJECT
(IN A COMPANY OR NGO DURING SUMMERVACATION)

Course Objective: To acquire practical knowledge by working in any organization. Students should learn application of conceptual knowledge to practical business problem and also develop interpersonal relations, working in teams and understanding dynamics in an organization.

Course Outcome: Students will be able to understand a) Management functions and Organizational structure b) organizational dynamics in terms of organizational behavior, culture, climate c) Functional domain knowledge d) Processes and systems d) External and Internal

Approach to Field Based Project:

Students should take covering letter/s from the college, addressed to the organization/professional institutions during the beginning of the second semester coursework. The students in consultation with Supervisor / Mentor and Head of the department should choose any area / topic of Business Management as per the Syllabus prescribed by the University.

The students can approach any Business organizations / Corporate / Public and Private sectors, Government Departments, Research organizations, J-Hub, T-Hub etc. for the Field based Projects.
The students should do the internship Project the summer break.
Summer internship report has to be submitted to the department after approval by the concerned Supervisor/Mentor and the Head of the department for the Power point (PPT) presentation for evaluation.

Field based project report is evaluated for 20 marks internal Exam and 30 marks External Exam.
The report has to be evaluated by the Head, Supervisor/ mentor and the senior faculty of the department.

JAWAHARLAL NEHRU TECHNOLOGICAL UNVERSITY HYDERABAD
BBA SEMESTER – V
22BBA501: INTERNATIONAL BUSINESS

Course Objectives:
- To understand the modes, drivers and challenges of international business.
- To get knowledge about different trade theories and FDI in the international business.
- To understand the International Trade Policies and economic integration.
- To learn about economic groups and multilateral trade agreements of the business.
- To understand the strategies and of international business, forex management.

Course Outcomes:
- To analyze the opportunities and challenges of International Business.
- To understand different theories in trade, FDI and balance of a country.
- To understand the trade policies of India and economic integration.
- To analyze the various regional groups and trade agreements.
- To apply International Business, in all the functional areas like finance, marketing, HR and products aspects.

Unit - I: Introduction to International Business
Definition, Need & scope of International Business, Distinction between Domestic and International Business, Drivers of Globalization, Environmental Analysis, Approaches to International Business, Modes of entering International Business, Impediments in international Business, Opportunities and Challenges of International Business.

Unit - II: International Trade Theories
Classical theories: Mercantilism, Absolute Advantage Theory, Comparative Advantage Theory and Factor endowment Theory; Modern theories: Country Similarity Theory, Product Life cycle theory, New Trade Cycle Theory and National Competitive advantage theory. India's Foreign Trade, Foreign Direct Investment in India and Balance of Payments.

Unit - III: International Business and Economic Integration
Economic Integration & its levels: Free Trade Agreement (FTA), Customs Union, Common market, Economic Union and Political Union. International Trade Policy of India.

Unit - IV: Economic Groups & Trade Agreements
Regional Economic Groups: European Union, NAFTA, ASEAN, SAARC. Multilateral Trade agreements: GAAT, WTO, TRIPS, TRIMS and UNCTAD.

Unit - V: International Business Strategy & Operations
International Business Strategy, types of strategies, strategy implementation process. International Production: Sourcing and vertical Integration; International Marketing: Brand Decisions; International Financial management: Forex market, International Monetary System, International financial markets and Export Financing; International HR Activities: HR Planning, Recruitment and selection of expatriates.

Suggested Readings:
- Michael R. Czinkota, Ilkka A. Ronkainen, Michael H. Moffett, International Business, 8e, Wiley, 2021.
- K Ashwatappa, International Business, 6e, Mc Graw Hill, 2015.
- S.N.Chary, elements of International Business, 2e, Wiley, 2016.
- Ehud Menipaz, Amit Menipaz & ShV S Tripathi, International Business, Sage, 2017.
- P. Subba Rao, International Business, 5e, Himalaya Publications, 2021
- Charles W. L Hill, G. Thomas M Hult, Rohit Mehtani, International Business,11e, Mc Graw Hill, 2019.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – V
22BBA502: DESIGN THINKING

Course Objectives:
- To understand the Design Thinking and its process to inspire students to be Innovators.
- To understand the causes of the problem and reformulate the tasks.
- To learn about empathy and its challenges in design Thinking.
- To clarify students the significance of Creativity and its various techniques.
- To develop Prototype, Testing Ideas, Implementing Design Thinking.

Course Outcomes: Students will be able to:
- Understand the approaches to plan a design thinking project.
- Learn about the various tasks and its need for formulation and reformulation.
- Learn the significance of mean end analysis.
- Apply creativity and analyze Ideas through thorough evaluation.
- Assess implementation and agility for design thinking.

Unit - I: Introduction to Design Thinking:
Design Thinking: Features - The Design Thinking Process - Principles of Design Thinking- Creating Ideal Conditions- Tolerating mistakes in Design Thinking- Planning a Design Thinking Project.

Unit - II: The Problem Phase-I
Understanding the task – search for the causes of a problem through fish bone – Identifying knowledge gaps – Systematically Closing the Knowledge Gaps- Formulating and reformulating the tasks.

Unit - III: The Problem Phase-II
Learning the meaning of Empathy - Empathy Map - Observing people in action Redefining the problem- Mean End Analysis- The Kano Model.

Unit- IV: The Solution Phase
Creativity - The Creativity Process- Principles of Creativity- Factors for increasing creativity- Mind mapping, Brain Storming, Ideas Evaluation – Advantages and Barriers to ideas evaluation.

Unit- V: Designing Prototypes
Prototype- developing and using prototypes effectively- Lean Startup Method for Prototype Development- Visualization and presentation techniques– Ten Successful factors for implementing the idea.

Suggested Readings:
- Christian Muller- Roterberg, Design Thinking for Dummies, John Wiley & sons, 2020.
- Idris Mootee, "Design Thinking for Strategic Innovation: What They Can't Teach You at Business or Design School", John Wiley & Sons 2013.
- Hasso Plattner, Christoph Meinel and Larry Leifer (eds), "Design Thinking: Understand – Improve – Apply", Springer, 2011.
- Roger Martin, "The Design of Business: Why Design Thinking is the Next Competitive Advantage", Harvard Business Press, 2009.
- Falk Uebernickel, Walter Brenner, Design Thinking for Innovation Research and Practice(E Book), Springer International Publishing,2016.
- Christoph Meinel, Hasso Plattner, Larry Leifer, Design Thinking Understand – Improve – Apply (E Book), Springer Berlin Heidelberg, 2010.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – V
22BBA503: BUSINESS ANALYTICS

Course Objectives:
- To understand the importance, difference and practices of analytics in business.
- To learn the basic arithmetic functions used in MS Excel.
- To understand the data visualization tools, application and statistical methods.
- To learn the mean variance, coefficient variation using MS Excel.
- To understand the predictive analysis using MS Excel.

Course Outcomes:
- Able to analyze different analytical tools in business.
- Adopt the arithmetic operation in MS Excel for the business decisions.
- Able to represent the data using charts, pivotal tables and statistical methods in business.
- To learn the measure of variability in decision making.
- To apply different techniques and models of predictive analysis in business decisions.

Unit - I: Introduction to Data Analytics
Introduction to Data analytics - Importance of Analytics- Difference between Data analytics and Business Analytics – Business Analytics in Practice: - 1. Financial analytics, 2. HR analytics, 3. Marketing analytics, 4. Health care analytics, 5. Supply chain analytics 6. Web analytics etc.

Unit - II: Basic Arithmetic operation of MS Excel
Basic arithmetic operation in Excel such as Addition, Subtraction, Multiplication and Division- Calculations using – Auto sum Function- SUMIF functions – MAX and MIN functions – COUNT and COUNTIF Functions-Modifying data in excel- Sorting and filtering Data in Excel- Conditional Formatting of Data in Excel- Frequency Distribution for Categorical data and Qualitative data in MS Excel.

Unit - III: Data Visualization
Over view of Data visualization – Data Visualization tools, Statistical methods for summarizing data – How to create pivotal tables using excel - Exploring data using pivot table –Cross Tabulation _ Creating Charts: - 1. Scatter charts, 2. Line charts, 3. Bar charts and column, 4. Pie Charts and 3-D charts, 4. Bubble charts, - Effective use of Dashboards, Power BI and Tableau.

Unit -IV: Descriptive
Mean, Geometric and Harmonic mean using MS Excel-Measures of Variability-Range, Variance, Standard Deviation, Coefficient of Variation using MS Excel

Unit - V: Predictive Analytics
Karl Pearson Correlation Techniques - Spearman's Rank correlation -Simple and Multiple regression - Regression by the method of least squares – Building good regression models – Regression with categorical independent variables.

Suggested Readings:
- Mohiuddin Ahmed, Al-Sakib Khan Pathan, Data Analytics: Concepts, Techniques, and Applications, Taylor & Francis Group, 2020
- James Evans, Business Analytics, 2e, Pearson, 2017.
- Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams Essential of Business Analytics, Cengage Learning, 2020.
- Thomas Eri, Wajid Khattack & Paul Buhler: Big Data Fundamentals, Concepts, drVers and Techniques by Prentice Hall of India, New Delhi, 2015.
- Akil Maheswari, Big Data, Upskill ahead by Tata McGraw Hill, New Delhi, 2016.
- Foster Provost and Tom Fawcett, Data Science for Business, Shroff Publisher, 2018.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – V
22BBA504: PYTHON PROGRAMMING

Course Objectives:
- Get introduced to Python language for data science; data types and structures
- Learn the concepts of compound data types
- Learn the concepts of functions and expressions in Python language
- Get introduced to libraries such as NumPy and Panda
- Use matplotlib library for data visualization

Course outcomes: Students will be able to
- Set a working directory and use data types and structures in Python
- Use compound data type in Python
- Use functions and expressions in Python
- Work with libraries such as NumPy and Panda
- Work with matpolib for data visualization

Unit I: Introduction & Data Types and Structures
Introduction, setting working directory, creating and saving a script file, commenting script files, variable creation, arithmetic and logical operators, input-output statements, control structures: conditional statement, looping statements, control statements.

Unit II: Compound Data Types
Strings, Lists, Arrays, Tuples, Dictionary, Sets, Range, Module-importing module, packages, composition, exception handing.

Unit III: Functions and Expressions
Conditions and Branching: Boolean Variables, Loops, Functions: defining and calling a function, types of functions, Regular Expressions: Match function, Search function, Matching Vs Searching, Object-orient programming and external libraries.

Unit IV: Libraries
NumPy: creating arrays, indexing arrays, array processing, array input and output. Pandas: series, data frames, index objects, data alignment, rank and sort, summary statistics.

Unit V: Python for visualization
Matpotlib, matpotlib architecture, pypotlib, creating simple chart, adding elements to chart, line chart, histogram, bar chat, pie chart, multi panel plot.

Suggested Readings:
- Wes McKinney, Python for Data Analysis, O"Reilly - Shroff Publishers & Distributors Pvt. Ltd, 2013.
- Fabio Nelli Python Data Analytics, Apress Kenneth A Lambert, Fundamentals of Python, Cengage Learning, 2015
- Davy Cielen, Arno D.B. Meysman, Mohamed Ali, Introducing Data Science: Big Data, Machine Learning and More, Using Python Tools, Manning, 2016.
- Wiley India Bharti Motwani Data Analytics using Python, Wiley India, 2020
- Miller Curtis, Hands-On Data Analysis with NumPy and pandas, Packt Publishing,2018.
- Mohiuddin Ahmed, Al-Sakib Khan Pathan, Data Analytics Concepts, Techniques, and Applications, Taylor & Francis Group, 2020

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – V
22BBA505: DATA SCIENCE

Course Objectives:
- To expose the students to the Data Science Environment
- To understand the data science process
- To introduce to the concepts of data mining
- To introduce to the concepts of machine learning
- To introduce to the concepts of artificial intelligence

Course outcomes: Students should be able to
- Understand the scope of data science and its applications in the business.
- Get acquainted with data science processes and to apply in business.
- Familiarize with concepts of data mining and its applicants.
- Familiarize with concepts of machine learning and its applicants.
- Familiarize with concepts of artificial intelligence and its applicants.

Unit – I: Introduction to Data Science:
Defining Data Science and Big Data, Benefits and Uses of Data Science and Big Data, Facets of Data, Structured Data, Unstructured Data, Natural Language, Machine-generated Data, Graph-based or Network Data, Audio, Image, Video, Streaming data, Data Science Process, Big data ecosystem and data science.

Unit – II: Data Science Processes:
Six steps of data science processes, define research goals, data retrieval, cleansing data, correct errors as early as possible, integrating – combining data from different sources, transforming data, exploratory data analysis, Data modelling, model and variable selection, model execution, model diagnostic and model comparison, presentation and automation.

Unit – III: Data Mining:
Scope of Data Mining, Data Exploration and Reduction, Unsupervised learning – cluster analysis, Association rules, Supervised learning- Partition Data, Classification Accuracy, prediction Accuracy, k-nearest neighbors, Classification and regression trees, Logistics Regression.

Unit – IV: Introduction to Machine Learning concepts:
Machine Learning, Learning from Data, History of Machine Learning, Big Data for Machine Learning, Leveraging Machine Learning, Descriptive vs Predictive Analytics, Machine Learning and Statistics, Types of Machine Learning, Reinforcement Learning.

Unit – V: Introduction to AI concepts:
AI, Turing test, cognitive modeling approach, the law of thoughts, the relational agent approach, the underlying assumptions about intelligence, techniques required to solve AI problems, level of details required to model human intelligence, successfully building an intelligent problem, history of AI.

Suggested Readings:
- James Evans, Business Analytics, 2e, Pearson, 2017.
- David R.H. and Galit Shmueli, Getting Started with Business Analytics, CRC Press, 2013
- Foster Provost and Tom Fawcett, Data Science for Business, Shroff Publisher, 2018.
- Seema Acharya & Subhashini Chellappan: Big Data and Analytics, Wiley Publications, New Delhi, 2015.
- Machine Learning for Absolute Beginners, O Theobald, 2e, 2015
- Artificial Intelligence Basics: A Non-Technical Introduction, Tom Taulli, Apress, 2019

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – V
22BBA506: PYTHON PROGRAMMING LAB

Course Objectives: To introduce the students to the basics of Python as a language/tool for Data Science
- Get introduced to Python language for data science
- Learn the concepts of compound data types, conditional and looping statements
- Learn the concepts of array, tuples, functions in Python language
- Learn file handling concepts
- Get introduced to libraries such as Numpy and Panda

Course outcomes: Students will be able to
- Set a working directory and performing basic operations in Python
- Use compound data type, conditional and looping statements in Python
- Create arrays, tuples and use functions in Python
- Store data in a file using a programme
- Work with libraries such as Numpy and Panda

Unit I: Fundamentals of Python
Installation of Python interpreter, simple data types: integer, float, string, accepting input from console, assignment statement, expressions, variable creation, arithmetic and logical operators, input-output statements.

Unit II: Conditional and Looping Statements and Compound Data Types
Conditional statement – if, if-else, if-elseif-else, built-in mathematical functions; Looping statements – for, while, flowcharts of for and while, errors and exceptions; Strings – concatenation, repetition, membership, function method, string slicing; Lists – creation of a list, traversal of a list, operation on a list, functions/methods, list slicing, nested listing.

Unit III: Array, Tuples, Dictionary, Functions
Arrays – creating an array, accessing elements of an array, Tuples; Dictionary – creating, accessing an element, add an item, modify an item in a dictionary, traversal, function methods; Functions – scope, parameter passing, recursion, return values.

Unit IV: File Handling
Open and close file, read, write and append to a file (Text files); CSV file import csv module; Functions – Open/Close csv file; Read from a csv file and write into a csv file using csv.reader() and csv.writerow().

Unit V: Numpy and Pandas Module
NumPy: creating arrays, array processing, accessing elements, slicing part of array; Pandas: series, data frames, data alignment, accessing tabular data.

Suggested Readings:
- Wes McKinney, Python for Data Analysis, O"Reilly - Shroff Publishers & Distributors Pvt. Ltd., 2013
- Fabio Nelli, Python Data Analytics, Apress, 2015
- Kenneth A Lambert, Fundamentals of Python, Cengage Learning, 2015
- Davy Cielen, Arno D.B. Meysman, Mohamed Ali, Introducing Data Science: Big Data, Machine Learning and More, Using Python Tools, Wiley India,2016
- Miller Curtis, Hands-On Data Analysis with NumPy and pandas, Packt Publishing, 2018
- Mohiuddin Ahmed, Al-Sakib Khan Pathan, Data Analytics Concepts, Techniques, and Applications, Taylor & Francis Group, 2020

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – V
22BBA507: SOCIAL MEDIA ANALYSIS (Lab)

Social media not only provides marketers with a means of communicating with their customers, but also a way to better understand their customers. Viewing consumers' social media activity as the "voice of the consumer," this session exposes learners to the analytic methods that can be used to convert social media data to marketing insights. In Introduction to Social Media Analytics, learners will be exposed to both the benefits and limitations of relying on social media data compared to traditional methods of marketing research. Partnering with a leading social media listening platform, this course provides learners with the foundational skills of social media listening including the creation of monitors and common social media metrics. Moving beyond social media listening, this course shows learners how social media data can be used to provide insights into market structure and consumers' perceptions of the brand. Learners will have the opportunity to assess data and discern how to "listen" to the data by watching video lectures and completing activities, practice quizzes, discussion boards, and peer assessments. The student has to select a topic and use the social media platform to collect the data and analyse the data using some statistical tools and prepare a report on that topic.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – VI
22BBA601: FUNDAMENTALS OF STRATEGIC MANAGEMENT

Course Objectives:
- To understand the strategic policies and factors influencing the business.
- To analyse the types of strategies and its implementation.
- To apply the strategies tools and analysis in an organisation.
- To evaluate the reasons for diversification, core competitiveness and competitive advantage.
- To evaluate need for measuring performance and strategic control.

Course Outcomes:
- To analyse the strategy policies and factors influencing the strategy of an organisation.
- To formulate the organisational strategy and value system.
- To evaluate the various analysis and tools in an organisation strategy.
- To understand the core competence and competitive advantage of an organisation, need for diversification.
- To analyse and apply tools for organisational performance management and control.

Unit- I:
Introduction: Concepts in SM, Objectives of SM, Strategic Policies in SM, Factors influencing Company Strategies, Developing a Strategic Vision.

Unit – II:
Types of Strategies: Generic Strategies- Formulating a strategy – Types of Strategies – Offensive Strategy, Defensive Strategy, Exit and Entry Barriers, Impact of organizational Values on Strategy.

Unit – III:
Analysis and Tools: Industry and Competitive Analysis, Methods, Evaluating Company Resources and Capabilities, SWOT Analysis, Impact Matrix and the Experience Curve.

Unit- IV:
Implementing and Diversification: Strategy and Structure, Strategy and Leadership, Operationalising and Institutionalizing Strategy, Strategic Change: Mergers and Acquisitions, Different Types of Diversification Strategies, Core Competence and Competitive Advantage.

Unit– V:
Strategic Control: Control Measuring Performance – Role of the Strategist – Using Qualitative and Quantitative Evaluation, Challenges in Measuring Performance –Evaluation and Control of strategies in MNC's (diversified companies).

Suggested Readings:
- Fred David Forest David, Pearson, Strategic Management: A Competitive Advantage Approach Concepts and Cases, Pearson Education, Limited,2016 ,Edition 16th.
- R. Maheshwari, Saurabh Agarwal, Strategic Management: SBPD Publishing House,2020
- William H. A. Johnson, Managing Global Strategy: Developing an Effective Strategy in International Business, Taylor & Francis,2020,
- Raphael Amit & Christoph Zott, Business Model Innovation Strategy: Transformational Concepts and Tools for Entrepreneurial Leaders John Wiley & Sons, 2020.
- Anthony E. Henry, Understanding Strategic Management, Oxford University Press, 2018.
- Jaimin H Trivedi, Fundamentals Of Strategic Planning And Development, RED'SHINE Publication. Pvt. Ltd, 2019.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – VI
22BBA602: INTRODUCTION TO INFORMATION SYSTEMS

Course Objectives:
- To learn the concept, evolution and challenges in organization using MIS.
- To understand the types, levels and quality information process.
- To understand types and roles of information system in business.
- To understand the functional areas and issues of information system.
- To learn the contemporary trends in management information system.

Course Outcomes:
- Apply the concept and functions to solve the problems in organization.
- Able to analyse effective and quality information of the organization.
- Adopt the transaction process system, decision support system and enterprise support system for smooth running of business.
- Able to analyse information from different functional areas and adopt controlling measures.
- To apply and adopt the appropriate management information system for better decision making.

Unit I: Introduction
Introduction, Concept, evolution and meaning of MIS; Information system for competitive advantage; Systems approach to problem solving; Challenges in the development of MIS, MIS function in an organization.

Unit II: Information and Managerial Effectiveness
Information and Managerial Effectiveness, Information as a corporate resource, pervasiveness of information, types of information – operational, tactical and strategic; Levels of management and information needs of management; Process of generation of information; Quality of information; information systems for finance, marketing, manufacturing, research and development and human resource areas.

Unit III: Information Systems
Information Systems – Information systems and their role in Business systems, changing role of information systems, users of information systems; Types of information systems – transaction processing systems, MIS decision support systems, executive support system; Enterprise Resource Planning (ERP) system, Business expert system.

Unit IV: Information System for Functional Areas and Issues
Information System for Functional Areas – Information for Financial – Marketing Inventory Control – Production and HR Functions, Security Issues Relating to Information Systems, threats to information systems, Vulnerability, risk and control measures.

Unit V: New Trends in MIS
Cloud computing, big data, CRM technology for Business, Data ware housing and artificial intelligence, Data Science. Implementation and Controlling of Management Information System.

Suggested Readings:
- Laudon & Laudon, Management Information Systems Managing the Digital Firm, Pearson Education,15 e 2017.
- Ramesh Behl, James A.O' Brien, George M. Marcus, Management Information Systems, Mc Graw Hill, 11e, 2019
- D P Goyal, MacMillan, Management Information Systems–Managerial Perspective, Macmillan Publishers India Limited, 3e Edition, 2010.
- Sahil Raj, Management Information Systems, Pearson, 2e,2018.
- Jaytilak Biswas, Management Information Systems, SAGE Publications India,2020.
- R. Kelly Rainer, Brad Prince, Hugh J. Watson, Management Information Systems Moving Business Forward, Wiley, 2020.

Course Objectives: Learn R programming language, basic functions and techniques.
- To introduce to R programming
- To understand the usage of expressions and loop in R
- To understand list, functions, strings and factors in R
- To understand the usage of objects and strings in R
- To visualize and analyze the data using R programming

Course outcomes: Student will be able to
- Get familiarize with R environment
- Work with expressions and loops in R
- To apply with list, functions, strings and factors in R
- To apply on Statistics with R
- Visualize and analyze data in using R

Unit–I: Getting Started with R
Concept of R, installing R, IDE of R, getting help from R, Mathematical Operators and Vectors, Assigning Variables, Special Numbers, classes, different types of numbers, changing classes, examining variables, the workplace, library of package, getting to know a package.

Unit–II: Basic Expressions
Vectors – sequences, lengths, names, indexing vectors, vector recycling and repetition, Matrices and Arrays – creating arrays and matrices, rows, columns, dimensions, indexing arrays, Arithmetic, Conditional – if and else, vectorized if, multiple selection, Loops – repeat loops, while loops, for loops, Advanced looping – replication, looping over lists, looping over arrays, Multiple – input apply, instant vectorization.

Unit–III: Lists, Functions, Strings and Factors
Lists – creating lists, automatic and recursive variables, list dimensions and arithmetic, indexing lists, conversion between vectors and lists, Combining lists, NULL, Pairlists, Data Frames – Creating Data Frames, Indexing Data Frames, Basic Data Frame Manipulation, Functions – Creating and Calling Functions, Passing functions, variable scope, Strings – Constructing and printing strings, Formatting numbers, Special characters, Changing case, Extracting Substrings, Splitting Strings, File paths, Factors – Creating, factor levels, ordered factors, conversion of variables .

Unit–IV: Statistics with R
Summarizing data, calculating relative frequencies, tabulating factors and creating contingency tables, testing categorical variables for independence, calculating quantiles of a dataset, converting data into z-scores, t-test, testing sample proportions, testing normality, comparing means of two samples, testing correlation for significance, linear regression in R, logistic regression in R, clustering with R .

UNIT V: Packages and Visualization
Loading packages, search path, libraries and installed packages, installing packages, maintaining packages, reading and writing data, importing data using built-in functions, Visualization – The three plotting systems, Scatterplots – based graphics, lattice graphics, histograms, box plots, bar charts, fitting linear model and regression tree.

Suggested Readings:
- Gardener, M, Beginning R, New Delhi: Wiley India,2013.
- Teetor, P., R Cookbook, Mumbai: O‟ Reilly India / Shroff Publishers,2014.
- Cotton, R. Learning R, Mumbai: O‟ Reilly India / Shroff Publishers,2014.
- Nathan Metzler, R Programming for Beginners,2019
- Sandip Rakshit , R Programming for Beginners,2017.
- Alex Nordeen, Learn R Programming in 24 Hours Complete Guide for Beginners, Guru99, 2020

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – VI
22BBA604: DATA VISUALIZATION

Course Objectives:
- To understand the purpose of data Visualization.
- To introduce the methods of data handling and data models.
- To introduce the methods of data manipulation for decision making.
- To present the data in a compelling manner using the Tableau.
- To understand the methods used to analyze data for strategic decision making.

Learning outcome: Students will be able to
- To design compelling data visualizations for insights for solving business problem.
- Get familiarize with data handling methods and models.
- To apply the data manipulation techniques for decision making.
- To able to present the data in a compelling manner using the Tableau.
- To able to conduct analysis on the data for strategic decision making.

Unit I: Effective Communication of Quantitative Information
Purpose, Scope, Communication Style, Quantitative relationships, differing roles of tables and graphs Mechanics of Sight, applying visual attributes to design, Gestalts principle, Fundamental variations of tables, Fundamental variations of graphs General Design principles for Communication Organizing, Highlighting, Integration, Table design, General graph design, Component level graph design, multi-Variable display.

Unit – II: Introduction to Data Handling
Overview of Data Analysis, Introduction to Data visualization, Working with Logical and financial functions, Data Validation & data models, Power Map for visualizing data, Power BI-Business Intelligence, Dashboard designing.

Unit- III: Introduction to Data Manipulation
Heat Map, Tree Map, Smart Chart, Column Chart, Line Chart , Pi, Bar, Area, Scatter Chart, Data Series, Axes, Chart Sheet, Trendline, Error Bars, Sparklines, Combination Chart, Gauge, Thermometer Chart , Gantt Chart, Pareto Chart etc., Frequency Distribution, Pivot Chart, Slicers, Tables: Structured References, Table Styles, What-If Analysis: Data Tables, Goal Seek, Sensitivity Analysis, Histogram, Descriptive, Statistics, Anova, F-Test, t-Test, Moving, Average, Exponential Smoothing, Correlation model, Regression model.

Unit –IV: Getting Started with Tableau
Tableau-Tableau product suite, Working, Tableau Architecture, Tableau Repository, Connecting to Data & Introduction to data source concepts, Understanding the Tableau workspace, Dimensions and Measures, Data Types & Default Properties, Building basic views.

Unit – V: Data Strategy
Understanding Product & Category, Competitive Analysis, Market Share understanding- Market potential Index, Seasonality Sales Trending, Consumer behavior Analytics-MIND AND MARKET FACTORS, Budget planning & Execution- MIMI, Regression & Correlation Analysis for Sales trending, Forecasting method with predictive investment modelling, Cohort Analysis, Google Analytics (GA).

Suggested Readings:
- Camm Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams; Essentials of Business Analytics; Cengae Learning, 2015
- Tristan Guillevin, Getting Started with Tableau 2019.2: Effective data visualization and business intelligence, Packt Publishing,2019, 2nd Edition.
- Claus O. Wilke ,Fundamentals of Data Visualization , O'Reilly Media,2019.
- Cole Nussbaumer Knaflic, Storytelling with Data: A Data Visualization Guide for Business Professionals, Wiley, 2015, 1st Edition
- Stephanie D.H. Evergreen ,Effective Data Visualization: The Right Chart for the Right Data, SAGE Publications,2019.
- Kieran Healy, Data Visualization A Practical Introduction, Princeton University Press,2019

Course Objectives: Learn R programming language, basic functions and techniques.
- To introduce to R programming.
- To understand the usage of expressions and loop in R.
- To understand list, functions, strings and factors in R.
- To understand the usage of objects and strings in R.
- To visualize and analyze the data using R programming

Course outcomes: Student will be able to
- Get familiarize with R environment and to apply.
- Work with expressions and loops in R programming.
- Work with list, functions, strings and factors in R.
- To apply on Statistics with R.
- Visualize and analyze data in R programming.

Unit–I: Getting Started with R
Concept of R, installing R, IDE of R, getting help from R, Mathematical Operators and Vectors, Assigning Variables, Special Numbers, classes, different types of numbers, changing classes, examining variables, the workplace, library of package, getting to know a package.

Unit–II: Basic Expressions
Vectors – sequences, lengths, names, indexing vectors, vector recycling and repetition, Matrices and Arrays – creating arrays and matrices, rows, columns, dimensions, indexing arrays, Arithmetic, Conditional – if and else, vectorized if, multiple selection, Loops – repeat loops, while loops, for loops, Advanced looping – replication, looping over lists, looping over arrays, Multiple – input apply, instant vectorization.

Unit–III: Lists, Functions, Strings and Factors
Lists – creating lists, automatic and recursive variables, list dimensions and arithmetic, indexing lists, conversion between vectors and lists, Combining lists, NULL, Pairlists, Data Frames – Creating Data Frames, Indexing Data Frames, Basic Data Frame Manipulation, Functions – Creating and Calling Functions, Passing functions, variable scope, Strings – Constructing and printing strings, Formatting numbers, Special characters, Changing case, Extracting Substrings, Splitting Strings, File paths, Factors – Creating, factor levels, ordered factors, conversion of variables .

Unit–IV: Statistics with R
Summarizing data, calculating relative frequencies, tabulating factors and creating contingency tables, testing categorical variables for independence, calculating quantiles of a dataset, converting data into z-scores, t-test, testing sample proportions, testing normality, comparing means of two samples, testing correlation for significance, linear regression in R, logistic regression in R, clustering with R .

Unit -V: Packages and Visualization
Loading packages, search path, libraries and installed packages, installing packages, maintaining packages, reading and writing data, importing data using built-in functions, Visualization – The three plotting systems, Scatterplots – base graphics, lattice graphics, histograms, box plots, bar charts, fitting linear model and regression tree.

Suggested Readings:
- Gardener, M, Beginning R, New Delhi: Wiley India, 2013.
- Teetor, P, R Cookbook, Mumbai: O‟ Reilly India / Shroff Publishers,2014.
- Cotton, R, Learning R, Mumbai: O‟ Reilly India / Shroff Publishers,2014.
- Nathan Metzler, R Programming for Beginners, 2019.
- Sandip Rakshit , R Programming for Beginners,2017.
- Alex Nordeen, Learn R Programming in 24 Hours Complete Guide for Beginners, Guru99, 2020

The student shall select a topic from any of the management subjects for the project work and need to approach the supervisor/ mentor and get approved the topic by Head of the Department. The student needs to present in the pre-submission seminar the synopsis which includes: introduction, methodology, objectives, scope, sampling, data source, statistical tools and programming to be applied.

The synopsis needs to be presented to DRC (Department Research Committee) consisting of Supervisor or mentor, senior Faculty member and Head of the department.

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
BBA SEMESTER – VI
22BBA606: PROJECT WORK

The topic selected by the student after approval in the pre-submission by DRC, the student shall work with the supervisor or mentor.

Guidelines:
The report should consist of:
Chapter 1: Introduction
Chapter 2: Company profile and Review of literature
Chapter 3: Methodology-Need, Scope, objectives, sampling design, Statistical Tools and Data sources.
Chapter 4: Data analysis and interpretation
Chapter 5: Findings, Conclusions and Suggestions.
Annexures
Bibliography