SCHEME OF EXAMINATION

SYLLABI

of

BACHELOR OF BUSINESS ADMINISTRATION (Computer Aided Management)

for

(w.e.f. 2021 — 2022 Academic Session)



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DWARKA, NEW DELHI-110078

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CV

SEMESTER III

Branin Chamdra

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Business Law

Course Code: BBA(CAM) 201

L-4, Credits-4

Objective: The objective of the course is to impart understanding of legal environment of business and familiarize with legal agreements to understand the process of establishing legal relationships

Course Outcomes:

CO1: Examine various aspects of contract and implications of various types of contract.

CO2. Interpret the regulation concerning the contract of Sale of Goods Act, 1930.

CO3. Understand and analyse companies Act 2013 with latest amendments.

CO4. Examine the concepts of negotiable instrument Act, 1881.

CO5. Comprehend the concepts of valid contract regarding business transactions.

Course Content

Unit I

The Indian Contract Act, 1872: Nature of Contract and its essentials, Void, Valid and Voidable Contracts, Consent, Consideration and its' impact on Contract, Agreements in restraint of Trade, Performance, Breach of Contract and remedies, revocation and termination of Contract, Agency and Bailment Contracts, Contract of Indemnity, Contract of Guarantee and Pledge. (14 Hours)

Unit II

The Sale of Goods Act, 1930: Objective, Definition of Contract of sale, Sale and Agreement to Sell, Definition of Goods, Conditions and Warranties, Implied Conditions and Implied Warranties, Performance of Contract of Sale and Right of unpaid seller, rights of sellers and buyers, transfer of

property. Unpaid seller and rights of unpaid seller.

Indian Partnership Act 1932: Definition of Partnership, Registration of Partnership Firm, Rights and duties of Partners, Dissolution of Partnership and Partnership firm.

Limited Liability Partnership Act, 2008: Formation and Incorporation of LLP, Partners and their relations, Financial Disclosures, Conversion into LLP, Foreign LLP. (18 Hours)

Unit III

The Companies Act 2013 with up-to-date Amendments: Essential characteristics of a Company, Types of Companies, Memorandum and Articles of Association, Prospectus, Essential conditions for a valid Meeting, Kinds of Meetings and Resolutions; Directors and Remuneration, Directors, Managing Directors-their Appointment, Qualifications, Powers and Limits on their Remuneration, Introduction to Lifting of corporate veil, conceptual framework of formation of company, Doctrine of Ultra Vires and Doctrine of Indoor Management, Winding up of Companies. (14 Hours)

Unit IV

Negotiable Instruments Act: Meaning and types of Negotiable Instruments- Cheques, Promissory Notes, Bills of Exchange, Holder and Holder in due course, Types of Endorsements, Types of Crossing of Cheques, Dishonor of Cheques and Consequences. (10 Hours)

Note: Case Studies are to be covered relevant to the conepts.

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Suggested Readings: (Latest Editions)

1. Kuchhal, M.C. and Kuchhal, Vivek, Business Law, Vikas Publishing House, New Delhi.

2. Pathak A., Legal Aspect of Business, McGraw Hill Education.

3. Maheshwari, S. K. & Maheshwari S.N, A Manual of Business Law, Himalayan Publishing House.

4. Singh, Avtar, Business Law, Eastern Book Company, Lucknow.

5. Kapoor, N.D., Business Law, Sultan Chand, New Delhi.

6. Bulchandani, K. R. Business Law for Management, Himalaya Publishing, House, New Delhi.

6. Bulchandani, K. R., Business Law for Management, Himalaya Publishing House, New Delhi.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	2	3
CO2	3	3	3	3	3	3	2	3
CO3	3	3	3	3	3	3	2	3
CO4	3	3	3	3	3	3	2	3
CO5	3	3	3	3	3	3	2	3

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GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI BACHELOR OF BUSINESS ADMINISTRATION (COMPUTER AIDED MANAGEMENT)

Operations Research

Course Code: BBA(CAM) 203

L-4, Credits-4

Objective: The objective of Operation Research includes solving operational questions, solving questions related to resources' operations and solving decision-making questions. To help the Business managers to face complex issues like how to build a plant, how much of a product to manufacture, how many people to hire and so on.

Course Outcomes:

CO1: To formulate and solve problems as networks and graphs.

CO2: To solve the problems using special solution algorithms.

CO3: Understand the concept of assignment problem.

CO4: Understand the concept of Game Theory and to decide Optimal Strategy.

Course Content

Unit I

Linear Programming: Concept of Linear Programming, Problem Formulation, Terminology, Assumptions, Applications and Limitations.

LPP Solution Methods: Graphical Method, Simplex Method, Penalty Method, Degeneracy in LPP, Other Special Cases like Infeasible solution, Unbounded Solution, Multiple Optimal Solutions.

Duality & Sensitivity Analysis: Primal - Dual Relationship.

(14 Hours)

Unit II

Transportation Problem: Concept of Transportation Problem, Mathematical Formulation, NWCM, LCM and VAM methods to find initial basic feasible solution, Testing the Optimality by MODI method. Some Special Cases of Transportation Problem. (14 Hours)

Unit III

Assignment Problem: Concept of Assignment Problem, Mathematical Formulation, Hungarian Method, Minimization and Maximization cases, Unbalanced Problem, Restricted Problem, Alternate Solutions, Travelling Salesman Problem

(14 Hours)

Unit-IV

Games Theory: Game, Pure and Mixed Strategies, Optimal Strategy, Rectangular Game, Payoff Matrix, Minimax and Maximum Principle, Saddle Point, Value of Game, Rule of Dominance. Addition of Sequencing in place of Queueing Theory, Johnson's Rule, 2 machine, 3 machine problem, Gantt charts (14 Hours)

Suggested Readings: (Latest Editions)

- 1. Swarup, K., Gupta, P.K & Manmohan, Operations Research, Published by Sultan Chand.
- 2. Taha, H.A., Operations research-An Introduction, Published by PHI
- 3. Sharma, J.K., Operations Research-Theory & Applications, Published by Macmillan.

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- 4. Sharma, S.D., Operations Research, Published By Kedarnath & sons.
- 5. Murthy, P.R., Operations Research, New Age International Publishers.
- 6. Aggarwal, S. C. & Mittal, S., Operations Research, Global Publications Private Limited.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
COI	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	2	2	3
CO3	3	3	3	2	2	2	2	3
CO4	3	3	3	2	3	2	2	3

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Database Management System

Course Code: BBA(CAM) 205

L-3, Credits-3

Objective: The objective of the course is to present and introduction to Database Management Systems, with an emphasis on how to organize, maintain and retrieve-efficiently and effectively- information from a DBMS.

Course Outcomes:

CO1: Analyze fundamental elements of a relational database management system

CO2: Evaluate the database design and improve the design by normalization

CO3: Implement the basic concepts of relational data model, ER model, relational database design and database language SQL

CO4: Identify the creation and formation of queries for the table creation

Course Content

Unit I

Database Concepts and Database Design:

Requirement of databases, Characteristics of the database, Relational databases schemas, and instances. Three schema architecture and Data independence.

Data models, Database architecture: Two-tier, Three-tier, Database System utilities.

Database Design: Overview, ER-Model, Constraints, ER-Diagrams, ERD Issues, Weak Entity Sets, Codd's rules, Relational Schemas, Introduction to UML (12 Hours)

Unit II

Relation data model and constraint & SQL:

Domain, Attributes, Tuples and Relations, Entity, Entity type, Relationship types and Degree.

SQL: Introduction, Types of constrains, Integrity constraints, data language: DML, DDL, DCL, Implementing constraints like primary key, Not null, Check, Foreign key and unique, Indexing, Aggregate function, Null Values, Working with views, Queries, Nested queries, Joins and triggers.

(10 Hours)

Unit III

Normalization —First normal form, Second normal form and Third normal form, Boyce-Codd normal form, Functional dependencies, Algorithm for relational database schema design, Forth normal form, Join dependencies and Fifth normal form.

(10 Hours)

Unit IV

Relational Algebra: Relational algebra: Introduction, Selection and Projection, Set operations, Renaming, Joins, Division, Syntax, Semantics. Operators, Grouping, Relational comparison.

Relational Calculus: Tuple relational calculus, Domain relational Calculus, Calculus vs algebra, Computational capabilities

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(10 Hours)

Suggested Readings: (Latest Editions)

1. Date, C. J., An Introduction to Database System, Addition Wesley Publishing Company.



- 2. Ramakrishnan R. & Gehrke, J., Database Management Systems, Mc-Graw-Hill Comapany, Higher Education.
- 3. Korth F., Database System Concepts, Mc-Graw-Hill.
- 4. Elmarsi, R. & Navathe, S.B., Fundamentals of Database Systems, Pearson.
- 5. Singh S.K., Database System Concepts, design and application, Pearson Education.
- 6. Desai, Bipin, An Introduction to Database Systems", Galgotia Publications.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	2	3	3	3	1	2	3	3	3	3
CO2	3	2	2	2	3	1	1	2	3	3	3	3
CO3	3	3	3	1	3	2	1	2	3	3	3	3
CO4	3	3	2	2	3	2	1	1	3	3	3	3

Porani Chamdra

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GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI BACHELOR OF BUSINESS ADMINISTRATION (COMPUTER AIDED MANAGEMENT)

Computer Networks

Course Code: BBA(CAM) 207

L-4, Credits-4

Objective: The main objective of this course is to introduce the understanding of the concept of computer networking with its layers, topologies, protocols & standards, IP addressing, routing and latest Networking Standards.

Course Outcomes:

CO1: Understand the basic of Computer Network and the models.

CO2: Understand about Multiplexing and Ethernet.

CO3: Understand about the various types of protocol.

CO4: Understand about layers in networking.

Course Content

Unit I

Introduction to Computer Network

Definitions, Uses, Benefits, Overview of Network Topologies (Star, Tree, Bus), Overview of Network Types (PAN, LAN, CAN, MAN), Networking Types (Client/Server, P2P), Overview of Protocols and Standards, OSI Reference Model, TCP/IP Model and its comparison with OSI, Analog and Digital data.

Physical Layer and Network Media: Network Devices: Repeater, Hub, Switch, Bridge, Router, Different types of transmission medias (wired: twisted pair, coaxial, fiber optic, Wireless: Radio waves, micro waves, infrared, Ethernet Cable Standards (UTP & Fiber cable standards), Circuit, Message & Packet Switching

(14 Hours)

Unit II

Data Link Layer: Function of Data Link Layer (DLL), Overview of Logical Link Control (LLC) and Media Access Control (MAC), Framing and Flow Control Mechanisms, Error Detection and Correction techniques, Channel Allocation Techniques (ALOHA, Slotted ALOHA), Ethernet Standards (802.3 CSMA/CD, 802.4 Token Bus, 802.5 Token Ring), Wireless LAN: Spread Spectrum (14 Hours)

Unit III

Network Layer: Introduction and Functions, IPv4 Addressing & Sub-netting, Class-full and Classless Addressing, IPv6 Addressing and its Features, Unicast, Multicast and Broadcast

Routing: Introduction and Definition, Types of Routing (Static vs Dynamic, Unicast vs Multicast, Link State vs Distance Vector, Interior vs Exterior), Path Computation Algorithms: Dijkstra's, Routing Protocols: RIP, OSPF & BGP

(14 Hours)

Unit IV

Transport Layer: Introduction, Functions and Services, Transport Protocols: TCP, UDP and Their Comparisons, Connection Oriented and Connectionless Services

Application, Presentation & Session Layer: Introduction and Functions, Web & HTTP, DNS and the Query Types, File Transfer and Email Protocols: FTP, SFTP, SMTP etc. (14 Hours)

Suggested Readings: (Latest Editions)

1. Forouzan, Behrouz A., Data Communication and Networking, Tata McGraw-Hill.



2. Tanenbaum, A.S., Computer Networks, Prentice Hall.

3. Hayes, J.F., Modelling and Analysis of Computer Communication Networks, Plenum Press.

4. Comer, D.E., Internetworking with TCP/IP, Prentice Hall, India.

5. Stallings, William, Data and Computer Communications, Pearson Education Asia.

6. Peterson, L.L. & Davie, B.S., Computer Networks: A Systems Approach, Morgan Kaufman publishers.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	1	1	1	2	1	1	1	3	3	3	3
CO2	1	1	1	1	1	1	1	1	3	3	3	3
CO3	1	1	1	1	2	1	1	2	3	3	3	3
CO4	1	1	1	1	2	1	1	2	3	3	3	3

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Business Communication

Course Code: BBA(CAM) 209

L-3, Credits-3

Objective: To train students to enhance their skills in written as well as oral Communication through practical conduct of this course. This course will help students in understanding the principles & techniques of business communication.

Course Outcomes:

CO1: To understand the concept of fundamental of communication

CO2: To understand the concept of communicating in a multicultural world

CO3: Briefly explain the business letter writing and presentation tools

CO4: To understand the concept of departmental communication

Course Content

Unit I

Fundamental of Communication: Meaning and significance of communication, Process of Communication, Principles of Effective Business Communication, 7Cs; How to Improve Command over Spoken and Written English, Effective Listening.

(10 Hours)

Unit II

Communicating in a Multicultural World: Idea of a global world, Impact of globalization on organizational and multicultural communication, understanding culture for global communication; Etic and Emic approaches to culture, The Cross Cultural Dimensions of Business Communication, Technology and Communication, Ethical & Legal Issues in Business Communication, overcoming cross cultural communication barriers.

(12 Hours)

Unit III

Business letter writing and Presentation Tools: Business letters- Need, Functions and Layout of Letter Writing, Types of Letter Writing: Persuasive Letters, Request Letters, Sales Letters and Complaints; Employment related letters Interview Letters, Promotion. Letters, Resignation Letters.

(10 Hours)

Unit IV

Departmental Communication: Barriers of Communication, Meaning, Need and Types, News Letters, Circulars, Agenda, Notice, Office Memorandums, Office Orders, Minutes of the meeting. Project and Report writing, How to Make a Presentation, the Various Presentation Tools, along with Guidelines of Effective Presentation.

(10 Hours)

Suggested Readings: (Latest Editions)

- 1. Lesikar, Business Communication: Making Connections in a Digital World. McGraw Hill Education.
- 2. Boove, C.L., Thill, J.V. & Chaturvedi, M. Business Communication Today, Pearson.
- 3. Krizan, Effective Business Communication, Cengage Learning.
- 4. Scot, Contemporary Business Communication, Biztantra, New Delhi.



- 5. Chaney & Martin, Intercultural Business Communication, Pearson Education
- 6. Mehra, Payal, Business Communication for Managers, Pearson Education.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3

Porani Chamdra

Database Management System - Lab

Course Code: BBA(CAM) 211

P - 2, Credits - 1

Objective: To be able write SQL queries and retrieving data.

Course Outcomes:

CO1: Applying the DDL, DML and DCL commands

CO2: To understand the concept of Joins.

CO3: Design different views of tables for different users and to apply embedded and nested queries.

CO4: To create a procedure and elaborate its usage.

Lab would be based on the Paper BBA(CAM)-205: DBMS Lab and it will be based on DBMS package. To write SQL queries and retrieving data.

SQL: Introduction to tables, Creating Tables, Duplicating tables, modifying tables, dropping tables, rename a tables

Records: Inserting and Updating the records in tables, Deleting the records, Viewing a table structure, Introduction to keys, Data integrity constraints

Query: Simple query, Nested query, Joins: Natural join, Inner join, Cross join, Outer join, Full join.

Aggregate functions: Group by and having clause, Relational and Logical operators.

Views, use of rollback and commit command, save points, Functions: string functions, statistical functions, date functions, Numeric functions conversion function

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	1	1	1	1	1	1	1	3	3	2	2
CO2	1	1	1	1	1	1	1	1	3	2	2	2
CO3	1	1	1	1	1	-1	1	1	3	3	2	2
CO4	1	1	1	1	1	1 -	1	1	3	2	2	2

Porani Chamdra



Environmental Studies

Course Code: BBA(CAM) 213

L-4, Credits-4

Objective: The course is designed to impart basic knowledge of the environment, its components and explore different approaches of conserving and protecting environment for the benefit of society. It also deals with the energy resources and current environmental problems faced by the world.

Course Outcomes:

CO1: Environmental Studies course will provide necessary information and knowledge about the various aspects of environment, ecosystems and related biodiversity.

CO2: Students will be able to learn and understand about the availability and sustainable use of resources, environmental problems and their short term and long term impacts to humans

CO3: Course will help them to learn about environmental policies and protocols, social issues and role of human in conservation and protection of environment.

CO4: Overall, course will help students to develop skills and ability of understanding environment-human relationship

Course Content

Unit I

Fundamentals: The Multidisciplinary nature of environmental studies: Definition, components, scope and importance, need for public awareness; Ecosystems: Concept, Structure and function of an ecosystem, energy flow in ecosystems, food chain, food web, ecological pyramids, ecological succession; Introduction to types, characteristics features, structure and function of different ecosystems including forest, grassland, desert and aquatic ecosystem; Biodiversity: Introduction to biodiversity-definition, genetics, species, ecosystem diversity, biogeographical classification of India, value of biodiversity-consumptive uses, productive, social, ethical, aesthetic and option values, biodiversity at global, national and local level, India as a mega diversity nation, endangered and endemic species of India, hot spots of biodiversity, threats to biodiversity – habitat loss, poaching of wild life, man wildlife conflicts and conservation of biodiversity-insitu and ex-situ conservation.

(18 hours)

Unit II

Renewable and Non-renewable Resources: Energy resources, Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources-green fuel; Water Resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems; Forest resources: Use and over-exploitation, deforestation, Timber extraction, mining, dams and their effects on forest and tribal people, case studies; Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies; Food resources: World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies; Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification; Role of individual in conservation of natural resources, Resource Management-Sustainable development.



Unit III

Environmental Pollution: Air Pollution; Types of pollutants, source, effects, sink & control of primary pollutants— CO, NOX, HC, SOx and particulates, effect of pollutants on man & environment: photochemical smog, acid rain and global warming, CO2 Sequestration. Water Pollution; Classification of Pollutants, their sources, waste water treatment (domestic and industrial). Soil Pollution; Composition of soil, classification and effects of solid pollutants and their control; Solid Waste Management: Classification, waste treatment and disposal methods; compositing, sanitary land filling, thermal processes, recycling and reuse methods. Hazardous wastes-Classification, radioactive, biomedical & chemical, treatment and disposal- Physical, chemical and biological processes; Marine Pollution: Causes, effects and control of marine pollution, coastal zone management; Thermal pollution-Causes, effects and control of marine pollution, coastal zone management; Disaster Management-Floods, earth quake, cyclone and landslides.

(11 hours)

Unit IV

Environmental Policies, Human Population and Environment: Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents, case studies; Some important Environmental laws, issues involved in enforcement of environment legislations, Green bench; carbon footprint, Montreal and Kyoto Protocol, conservation of Biological Diversity, The Chemical Weapons Convention, Environment Impact Assessment; population growth and variation among nations, Impacts on environment and human health, human right, Tribal people and rights, Human and wildlife conflicts in Indian context, Environmental ethics;Role of government and non government organizations in public awareness and environment improvement. (15 hours)

Field work:

visit to local areas to document environmental assets, study of simple ecosystems, study and identification of common plants, birds and insects.

Suggested Readings: (Latest Editions)

- 1. Gadi, R., Rattan, S., Mohaptra, S., A textbook of Environmental Studies, Kataria Publication.
- 2. P. Meenakshi, Elements of Environmental Sciences & Engineering, PHI Learning Pvt. Ltd.
- 3. Kaushik, A. & Kaushik, C.P., Basics of Environment and Ecology, New Age International Publishers.
- 4. Mishra, D.D., Fundamental Concepts in Environmental Studies, S Chand & Co. Ltd.
- 5. Bharucha, E., Textbook of Environmental Studies, University Press Pvt. Ltd.
- 6. Joseph, B., Environmental Studies, Tata McGraw-Hill Publishing Company Ltd.



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI BACHELOR OF BUSINESS ADMINISTRATION (BBA)

NSS/NCC/NSO/others notified by the university (NUES)

Course Code: BBA(CAM) 215

L-2, Credits - 2

NCC/NSS are offered so as to unable the students to opt for the same for ability enhancement. The student who has successfully completed the said programme as per guidelines shall be awarded two credits after the same is duly approved by the NSS/NCC Cell and recommended by the Controller of Examination to post two credits as per decision of the Board of Studies of the School.



SEMESTER IV

Branin Chamdra



Human Resource Management

Course Code: BBA(CAM) 202

L-4, Credits-4

Objective: To develop an understanding of the concepts, techniques and principles to manage human resources of an organization.

Course Outcomes:

CO1: Examine the concepts and relevance of HRM.

CO2: Explore the various dimensions of Human resource Planning.

CO3: Analyze the needs, methods and designing of training and development programmes.

CO4: Exhibit the career planning and career development.

CO5: Acquire skills for employee's performance appraisal and to understand the relevance of employee maintenance and Industrial Relations.

Course Content

Unit I

Introduction to Human Resource Management: Functions of HR Manager; Policies related to Human Resource Management; Emerging challenges of human resource management - Workforce diversity, welfare, health, safety, social security, empowerment, downsizing, VRS, work life balance. Employee code of conduct, Human Resource Information System (HRIS) and e-HRM (14 Hours)

Unit II

Acquisition of Human Resource: Human resource planning- Quantitative and qualitative dimensions; Job analysis - Job description and job specification; Recruitment -sources, process; Selection - process, techniques and tools; induction and orientation; Retention. (14 Hours)

Unit III

Training and Development: Concept and importance; Role specific and competency-based training; Training and development techniques and programs - Apprenticeship, understudy, Job rotation, vestibule training, case study, role playing, sensitivity training, In- basket, management games, conferences and seminars, coaching and mentoring, management development programmes; Training process outsourcing, Cultural Shock. (14 Hours)

Unit IV

Performance Appraisal and Compensation Management: Performance appraisal- Nature, objectives, process, methods, Employee counselling; Job changes - Transfers and promotions. Compensation - Rules and policies, Base and supplementary compensation; Individual and group incentive plans; Fringe benefits; Performance linked compensation; Employee stock option; Pay band compensation system; HR Audit, Contemporary issues in human resource management. (14 Hours)

Note: Case Studies are to be covered relevant to the concepts.

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Suggested Readings: (Latest Editions)

1. Dessler, Gary, A Framework for Human Resource Management, Pearson Publishers.

2. David A. Decenzo, Stephen P. Robbins, Susan L. Verhulst, Human Resource Management, Wiley India Private Limited.

3. Bohlendar and Snell, Principles of Human Resource Management, Cengage Learning.

4. Aswathappa,K, Human Resource Management, McGraw Hill Education Company.

5. Robert L. Mathis and Jackson, J., Human Resource Management, South-Western College Publishing.

6. Rao, V. S. P., Human Resource Management: Text and Cases, Excel Books, Delhi

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3

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Financial Management

Course Code: BBA(CAM) 204

L-4, Credits-4

Objective: The objective of the course is to acquaint the students with the overall framework of financial decision- making in a business unit.

Course Outcomes:

CO1: Explain the nature and scope of Financial Management.

CO2: Analyze capital Budgeting process and apply capital budgeting techniques for business decisions.

CO3: Examine various capital structure theories and analyze factors affecting capital structure decisions.

CO4: Critically examine the theories of dividend and analyze factors affecting dividend policy and suggest sound dividend policy.

CO5: Acquire skills to manage profitability and take sound financial decision for a business

Course Content

Unit I

Introduction: Nature, scope, and objectives of Financial Management- Profit Maximization, Wealth Maximization; Value Maximization- concept and implications, Economic Value Added (EVA), Market Value Added (MVA). Functions and Responsibilities of Finance Manager, Time value of money.

Unit II

Unit III

(14 Hours)

Cost of Capital and Financing Decision: Sources of long-term financing, Components of Cost of Capital and calculation - Cost of Equity, Cost of Retained Earnings, Cost of Debt and Cost of Preference Capital, Weighted Average Cost of Capital (WACC) and Marginal Cost of Capital. Capital Structure- Theories of Capital Structure (Net Income, Net Operating Income, MM Hypothesis, Traditional Approach).

(14 Hours)

Capital Budgeting: Capital Budgeting Process and methods: Payback Period Method, Discounted Payback Period Method, Accounting Rate of Return (ARR), Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index, Capital budgeting under Risk & Uncertainty-Certainty Equivalent Approach and Risk-Adjusted Discount Rate Method.

(14 Hours)

Unit IV

Dividend Decisions and Working Capital Management: Theories for relevance and irrelevance of Dividend Decision- Walter's Model, Gordon's Model, MM Approach, Types of Dividend, Determinants of Dividend policy.

(14 Hours)

Suggested Readings: (latest editions)

- 1. Khan, M.Y, Jain P.K., Financial Management, McGraw Hill Education Company.
- 2. Pandey I. M., Financial Management, Vikas Publishing House.
- 3. Kapil, Sheeba, Financial Management, Pearson Education.
- 4. Chandra, Prasanna, Financial Management, McGraw Hill Education Company.
- 5. Maheshwari, S.N., Financial Management: Principles and Practice, Sultan Chand & Sons.
- 6. Tulsian, P.C., Financial Management: A self study textbook, S. Chand.

PO8	LO4	90d	POS	PO4	PO3	704	104	
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CO-PO MAPPING



Python Programming

Course Code: BBA(CAM) 208

L-4, Credits-4

Objective: In this course, the learners will be able to develop expertise related to design Python applications, components of a Python program and to define the structure.

Course Outcomes:

CO1: To understand Python as a useful scripting language for developers and to define the structure and components of a Python program.

CO2: To learn how to use lists, tuples, object and dictionaries in Python programs.

CO3: To learn how to write functions and to learn how to use exception handling in Python applications for error handling.

CO4: To learn how to design object-oriented programs with Python classes and to acquire programming skills in core Python.

Course Content

Unit I

Python Programming Introduction: Evolution, Need of Python Programming, Features, program structure, Identifiers, Escape sequences, IDLE-Python Interpreter Operators: Relational, Logical, Bitwise, comparison operator etc. Variables and assignment statements, Keywords.

Control Structures: if-conditional statements, if -else condition, if-elif-else condition, nested if-elif-else condition, Iteration (Loop and while statements), Nested Loops, break, continue and pass statements.

Strings: Slicing, Membership, Built in functions (count, find, capitalize, title, lower, upper and swap case, replace, join, isspace (), isdigit(), split(), startswith(), endswith()). (14 Hours)

Unit II

Mutable and Immutable objects:

List: List operations, functions-append, extend, count, remove, index, pop, insert, sort, reverse.

Tuples: Tuple operations, functions- tuple, count, index.

Dictionary: Dictionary operations, functions- get, update, copy. Deletion in dictionary.

(14 Hours)

Unit III

Concept of Functions: Functions: Defining, Calling and Types of Functions, Arguments and Return Values, Formal vs. Actual Arguments, Scope and Lifetime, Keyword Arguments, Default Arguments,

Modules: importing Modules, Math and Random Module, Packages and Composition

File handling: Types of Files (Text file, Binary Files, CSV files), Creation, writing, appending, Insertion, deletion, updating, modification of Data in into the files. Exception Handling. (14 Hours)

Unit IV

Object Oriented Programming: Classes, Objects, Date Class, Attributes and Methods, Access Specifiers, Constructors, Static Methods, Data Hiding, Encapsulation, inheritance, Composition, Polymorphism, , Abstract Classes.

NumPy Library introduction to NumPy, Creation of One-Dimensional Arrays, Aggregate Operations, Multi-Dimensional Arrays, Data science Python for data analysis and its applications. (14 Hours)

Pravir Chamdras



Operating System

Course Code: BBA(CAM) 206

L-4, Credits-4

Objective: The main objective of this course is to develop expertise related to the functionalities of operating system and understand the concept of process scheduling, memory management, deadlock and file system.

Course Outcomes:

CO1: Able to explain functions, structures and history of operating systems

CO2: Be familiar with various types of operating systems including Unix/Linux

CO3: Understand various process management concepts including scheduling, synchronization, deadlocks

CO4: Concepts of memory management including virtual memory

Course Content

Unit I

Introduction: Operating System, Functions of Operating System, Simple Batch Systems; Multi programmed Batch systems, Time-Sharing Systems, Personal-computer systems, Parallel systems, Distributed Systems, Real-Time Systems.

Processes: Process Concept, Process Scheduling, Operation on Processes, cooperation Process

(14 Hours)

Unit II

CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms

LINUX: Overview of UNIX and LINUX Architectures, Understanding of common commands like man, date, who am I, who, wc, cal, bc, hostname and uname. Basic Linux directory structure and the functions of different directories basic directory navigation commands like cd, mv, copy, rm, and cat command, Permission types, Examining permissions, changing permissions (symbolic method numeric method),vi editor, Shell programming (14 Hours)

Unit III

Process Synchronization: Background, The Critical-Section Problem, Semaphores

Deadlocks: System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection, Recovery from Deadlock (14 Hours)

Unit IV

Memory Management: Background, Logical versus Physical Address space, swapping, Contiguous allocation, Paging, Segmentation

Virtual Memory: Demand Paging, Page Replacement, Page-replacement Algorithms, Performance of Demand Paging, Allocation of Frames, Thrashing, Other Considerations

Information Management: Introduction, A Simple File System, General Model of a File System, Types of File System File-System Interface: File Concept, Access Methods, Directory Structure. (14 Hours)

Suggested Readings: (Latest Editions)

- 1. Silbersachatz, Abraham & Galvin, P.B., Operating System Concepts, John Wiley & Sons
- 2. Dhotre, I. A., Venugurlekar, P. A. & Mhatre, H. K., Operating System, Technical Publication.
- 3. Das, Sumitabha, Unix Concepts and Application, Mc-Graw Hill Education Company.
- 4. Sivaselvan, B. & Gopalan, N. P., A Beginner's Guide to UNIX, PHI Learning
- 5. Tanenbaum, Andrew S. & Woodhull, Albert S., Operating Systems Design and Implementation,
- 6. Madnick E., Donovan J., Operating Systems, Tata McGraw Hill.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	2	2	1	1	1	1	1	2	3	3	3	2
CO2	2	2	1	1	1	1	1	2	3	3	3	2
CO3	1	1	1	1	1	1	1-1-	-1	3	3	3	3
CO4	1	1	1	1	1	1	1	1	3	3	3	



Suggested Readings: (Latest Editions)

- 1. Summerfield, M., Programming in Python 3: A Complete Introduction to the Python Language,
- 2. Taneja, S. & Kumar, N., Python Programming: A Modular Approach, Pearson India Education
- 3. McKinney, Wes, Python for Data Analysis: Agile tools for Real World Data, O'Reilly.
- 4. Kanetkar, Y. & Kanetkar, A., Let Us Python, bpb publications.
- 5. Urban, M., & Murach, J., Python Programming, Murach publications.
- 6. Lutz, M., Programming Python, O'Reilly.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	2	2	1	1	1	1	1	2	3	3	2	2
CO2	2	2	1	1	1	1	1	2	3	3	2	3
CO3	1	1	1	1	1	1	1	1	3	2	2	3
CO4	1	1	1	1	-	- 3			3	3	3	3
		•	1	1	-1	1	1	1	3	3	3	3

Pravir Chamdra



Minor Project-II

Course Code: BBA(CAM) 210

L-3, Credits-3

Course Outcomes:

CO1. Identify a field of study or a business problem.

CO2. Examine the environment to identify the potential research areas.

CO3. Crystallize a business concern into a concrete business research problem.

CO4. Explore alternative ways to resolve a business problem

During the fourth semester each student shall undertake a project to be pursued by him / her under the supervision of an Internal Supervisor to be appointed by the Director / Principal. The project should preferably be based on primary / secondary data. The project title and the supervisor will be approved by the Director / Principal of the Institution. It shall be evaluated by an External Examiner to be appointed by the University.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	2	3	3	3	3
CO2	3	3	3	2	3	3	3	3
CO3	3	3	3	2	3	3	3	3
CO4	3	3	3	2	3	3	3	3

Branin Chamdra



BBA(CAM) 212: Operating System - Lab

Course Code: BBA(CAM) 212

P - 4, Credits - 2

Objective: The Objectives of Operating Systems Lab is to introduce the concepts of operating systems, designing principles of operating systems and implementation of operating systems.

Course Outcomes:

CO1: Understand the UNIX/LINUX Architecture, File systems and use of basic Commands.

CO2: Use of editors and Networking commands.

CO3: Understand Shell Programming and to write shell scripts.

CO4: Understand and analyze UNIX/LINUX System calls and Process Creation.

Lab will be based on the subject code BBA(CAM)- 206-Operating System

Basic commands of Unix/Linux operating system

Create file systems and directories and operate them

Vi Editor and Shell Programming

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	3	1	3	2	2	3	3	3	3	3
CO2	3	3	3	1	3	2	2	3	3	3	3	3
CO3	3	3	3	1	3	2	2	3	3	3	3	3
CO4	3	3	3	1	3	2	2	3	3	3	3	3

Poranin Chamdra



Python Programming - Lab

Course Code: BBA(CAM) 214

P - 4, Credits - 2

Objectives: To be able to introduce core programming basics and program design with functions using Python programming language. To understand a range of Object-Oriented Programming, as well as in-depth data and information processing techniques.

Course Outcome

CO1: Read, write, and execute simple Python programs. CO2: Write simple Python programs for solving problems. CO3: Decompose a Python program into functions, lists etc. CO4: Read and write data from/to files in Python Programs

This Lab would be based on the course BBA(CAM) -208: Python Programming

- Basic principles of Python programming language
- Implement object oriented concepts
- Implement database and GUI applications.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	1	2	3	2	2	3	3	3	3	3
CO2	3	3	1	2	3	2	2	3	3	3	3	3
CO3	3	3	1	2	3	2	2	3	3	3	3	3
CO4	3	3	1	2	3	2	2	3	3	3	3	3

Porania Chamdra



MOOC

Course Code: BBA(CAM) 216

Credits - 3

To remove rigid boundaries and facilitate new possibilities for learners in education system, study webs of active learning for young aspiring minds is India's Nation Massive Open Online Course (MOOC) platform. Massive Open Online Courses (MOOCs) are free online courses which are designed to achieve the three cardinal principles of India's education policy: Access, Equity and Quality. MOOCs provide an affordable and flexible way to learn new skills, career development, changing careers, supplemental learning, lifelong learning, corporate eLearning & and deliver quality educational experiences at scale and more.

A student will have the option to earn 3 credits by completing quality-assured MOOC programme of at least 8 weeks offered on the SWAYAM portal or any other online educational platform approved by the UGC / regulatory body from time to time. Completion certificate followed by assignment and exams of opted MOOC should be submitted to respective institute for earning the course credit, i.e. 3.

For August session, tentative list of programmes will be available on the platform from May- August and for January session, tentative list of programmes will be available on the platform from October to January

Poranin Chamdra



SEMESTER V

Poravir Chamdra

BBA(CAM) 301: Entrepreneurship Development

Course Code: BBA(CAM) 301

L-3, Credits-3

Objective: It provides exposure to the students to the entrepreneurial cultural and industrial growth so as to prepare them to set up and manage their own small units.

Course Outcomes:

CO1: Describe the concept of Entrepreneur and its emergence.

CO2: Identify how to go about the promotion of a venture.

CO3: Recognize Entrepreneurial behaviour.

CO4: Explain Development programmes for entrepreneur.

CO5: Interpret the role of Entrepreneur in economic growth.

CO6: Acquire skills regarding starting up their own business unit

Course Content

Unit I

Introduction: The Entrepreneur: Definition, Emergence of Entrepreneurial Class; Theories of Entrepreneurship. Introduce role of Entrepreneurship in Economic Development, Myths about Entrepreneur and Agencies in Entrepreneurship Management (12 Hours)

Unit II

Promotion of a Venture: Opportunity Analysis; External Environmental Analysis Economic, Social and Technological; Competitive factors; Legal requirements of establishment of a new unit and Raising of Funds; Venture Capital Sources and Documentation Required, Forms of Ownership. (12 Hours)

Unit III

Entrepreneurial Behaviour: Innovation and Entrepreneur; Entrepreneurial Behaviour and Psycho- theories, Social responsibility. Relevance and Role of Entrepreneurial Development Programmes (EDP), Role of Government in Entrepreneurial Development. (12 Hours)

Unit IV

Role of Entrepreneur: Role of an Entrepreneur in Economic Growth as an Innovator, Generation of Employment Opportunities, Complimenting and Supplementing Economic Growth, Bringing about Social Stability and Balanced Regional Development of Industries: Role in Export Promotion and Import Substitution, Forex Earnings. Concept of Start ups to be introduced. (12 Hours)

Suggested Readings: (Latest Editions)

- 1. Charantimath, P., Entrepreneurship Development and Small Business Enterprise, Pearson Education.
- 2. Bamford C.E., Entrepreneurship: A Small Business Approach, McGraw Hill Education.
- 3. Balaraju, Thaduri, , Entrepreneurship Development: An Analytical Study, Akansha Publishing House.
- 4. Oates, David, A Guide to Entrepreneurship, Jaico Books Publishing House.
- 5. Kaulgud, Aruna, , Entrepreneurship Management, Vikas Publishing House.
- 6. Chhabra, T.N., Entrepreneurship Development, Sun India.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
COI	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3
CO6	3	3	3	3	3	3	3	3

Web Designing & Development

Course Code: BBA(CAM) 303

L-4, Credits-4

Objective: This course will enable students to build real-world, dynamic web sites with using PHP language and to develop a front end system that is both user friendly and easy to use or navigate, the front end system will be linked to a back end database which can be updated online.

Course Outcomes:

CO1: Develop the concept of basic and advanced text formatting and multimedia components in HTML documents.

CO2: To prepare style sheet, CSS properties, Background, Text, Font and styling etc.

CO3: Designing of webpage-Document Layout, Working with List, Working with Tables.

CO4: To work with Dream viewer and use the html component in dream viewer

CO5: To work with flash software and features of flash

Course Content

Unit I

Concepts of Web Technology: HTML basics, Structure of HTML, Working with HTML text, implicit and explicit tag, Attributes & Values, Comments, Header Tags, Image Tag & Mapping, Formatting Tags, Link Tags, List Tag, Table Tag, Form Tag, Frame Tag.

(14 Hours)

Unit II

Introduction to PHP: Benefits of using PHP, Server Client Environment, Web Browse Web Server Installation & Configuration Files

Development Concept: PHP Scripting, Embed HTML, Data Type, Variable, Contents and Operators.

(14 Hours)

Unit-III

Control Structure: If Statements, Switch Statement, Looping Structure

Function: User & system Defined Function, Date & Time Function, String Functions

Array: Associative Array, Numeric Array, Multi-Dimensional Array

(14 Hours)

UNIT IV

State Management: Creating Cookies, Set Cookies, Destroying Cookies, Creating Session, Set Session, Destroying Session

MySQL Function in PHP: Database Connections, Managing Database Connections, Performing Queries, Closing Connection (14 Hours)

Suggested Readings: (Latest Editions)

1. Powell, Thomas, The Complete Reference, McGraw Hill.

2. Nixon, Robin, Learning PHP, MySQL & JavaScript, CSS & HTML5, O'Reilly Publications.

- 3. Lemay, L., Colburn, R. & Kyrnin, J., Mastering HTML, CSS & Javascript Web Publishing, BPB Publications.
- 4. Forbes, Alan, The Joy of PHP Programming, CreateSpace Independent Publishing Platform.
- 5. Beighley, L. & Morrison, M., Head First PHP & MySQL, O'Reilly Publications.
- 6. Vaswani, Vikram, PHP: A Beginner's Guide, McGraw Hill.

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CO-PO MAPPING





Data Analytics with R Programming

Course Code: BBA(CAM) 305

L-4, Credits-4

Objective: This course aims to provide a practical introduction to the R programming language. By the end of the day-long course, the user will be comfortable operating in the R environment, including importing external data, manipulating data for specific needs, and running summary statistics and visualizations.

Course Outcomes:

CO1: Understand the basics in R programming in terms of constructs, control statements, string functions

CO2: Understand the use of R for Big Data analytics

CO3: Learn how to apply R programming for Text processing

CO4: Able to appreciate and apply the R programming from a statistical perspective

Course Content

Unit I

R Introduction: Overview of R Programming, Downloading and installing, Help Function, Viewing documentation, General issues in R, Package Management

Data Inputting in R: Data Types, Subsetting, Writing data, Reading from CSV files, Creating a vector and vector operation, Initializing data frame, Control structure, Re-directing R Output (14 Hours)

Unit II

Data Visualization: Creating Bar Chart and Dot Plot, Creating Histogram and Box Plot, Plotting with Base Graphics, Plotting and Coloring in R

Basic Statistic: Computing Basic Statistics, Comparing Means of Two Samples, Testing a Hypothesis.

(14 Hours)

Unit III

Functions and Programming in R: Grouping, Loops and Conditional Statment, Functions Exploratory Data

Data Manipulation in R: List Management, Data Transformation, Merging Data Frames, Outlier Detection Combining Multiple Vectors (14 Hours)

Unit IV

R and Database - Performing Queries, RODBC and DBI Package, Advanced Data Handling, Combined and Restructuring Data Frames (14 Hours)

Suggested Readings: (Latest Editions)

- 1. Matloff, Norman., The Art of R Programming: A Tour of Statistical Software Design, No Starch Press.
- 2. Lander, Jared P., R for Everyone: Advanced Analytics and Graphics, Addison-Wesley Data & **Analytics Series**
- 3. Teetor, Paul, R Cookbook, O'Reilly Publications,
- 4. Vries, A. D., Meys, Joris, R Programming For Dummies, Wiley Publications.
- 5. Gardener, Mark, Beginning R The Statistical Programming Language, Wiley Publications.
- 6. Rakshit, Sandip, R for Beginners, McGraw Hill.

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Web Designing & Development Lab

Course Code: BBA(CAM) 307

P - 4, Credits - 2

Objective: The Objectives of Web Designing & Development Lab is to introduce the PHP, Database Connectivity and implementation of HTML tags.

Course Outcomes:

CO1: Analyze a web page and identify its elements and attributes

CO2: To work with the website designing tool.

CO3: To work with the integrated development environment using Dream viewer.

CO4: To learn the basic use of flash and features to utilize in website.

Lab will be based on the Subject Code BBA(CAM) 303 – Web Designing & Development and contains the following tools:

1. Working with Html tags

2. Working with PHP

3. Database Connectivity

Note - Website to be created by every student using PHP and mysql.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	1	1	1	1	1	1	1	3	2	3	3
CO2	1	1	1	1	1	1	1	1	3	3	3	3
CO3	1	1	1	1	1	1	1	1	3	2	3	3
CO4	1	1	1	1	1	1	1	1	3	3	3	3

Poranie Chamdra

3



Summer Training Report

Course Code: BBA(CAM) 309

Credits - 4

Learning Outcomes:

1. Work & gain practical experience of working in a real business setting and environment.

2. Explore the various functional areas and correlate a few theoretical concepts taught in classrooms to real life work and life scenarios.

3. Identify and Analyze best practices, system, processes, procedures and policies of a company/industry in different functional areas and also identify areas with scope of improvements and recommend changes that may be incorporated.

 Develop skills in report writing through observation, data collection, data analysis and present it as a report for analysis to the company.

Each student shall undergo practical training of Six to Eight weeks duration after fourth semester in an approved business / industrial / service organization and submit Hard Copy of the Summer Training Report along with Soft Copy to the Director / Principal of the Institution before the commencement of the Fifth Semester End-term Examination. The Summer Training Report shall Carry 100 marks. It shall be evaluated for 60 marks by an External Examiner to be appointed by the University and for the rest of the 40 marks by an Internal Examiner to be appointed by the Director / Principal of the Institution.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3.	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3

Poranin Chamdra



Data Warehousing & Data Mining

Course Code: BBA(CAM) 311

L-3, Credits-3

Objective:

To understand the principles of Data warehousing and Data Mining, familiarize with the Data warehousing and Data Mining architecture and its Implementation and to understand the various Data preprocessing Methods.

Course Outcomes:

CO1: Analyze about the Data warehouse Architecture

CO2: Design about Data Preprocessing Methods

CO3: Implement about Association mining

CO4: Effective learning about Classification and Clustering methods

Course Content

Unit I

Introduction of Database: Types of databases: Relational databases, Data Warehouses, Transactional databases, OO databases, Spatial databases, Temporal and Time series databases, Text and multimedia databases.

Data Warehousing: Data Warehousing: Definition, Scope, Practical Implications, and Characteristics.

(10 Hours)

Unit II

Data Marts: Definition, usage and design. Introduction to Cube technology. OLTP and OLAP systems. Various OLAP operations. OLAP & DSS support in data warehouses.

Schemas: Star, snowflake and fact constellations. Types of measures. Concept hierarchies.

(10 Hours)

Unit III

Data Warehouse Architecture: Multi-dimensional Data warehouse model, 2-tier, 3-tier & 4-tier data warehouses.

Types of OLAP servers: ROLAP, MOLAP and HOLAP

Metadata repository: Contents.

Data Preprocessing: Its importance. Data Cleaning, Data Integration and Transformation, Data Reduction, Discretization and Concept Hierarchy Generation. (12 Hours)

Unit IV

Data Mining: Introduction: Data mining tasks, steps in KDD process. Steps of data mining, DM functionalities: Types of patterns that can be mined-Introduction to characterization, discrimination, association analysis, classification, prediction. Applications of Data Warehousing and Data Mining.

(10 Hours)

Suggested Readings (latest editions to be referred)

- 1. Berson, Alex & J.Smith, Stephen, Data Warehousing, Data Mining & OLAP, Tata McGraw Hill. 2. Soman, K.P., Diwakar, Shyam & Ajay, V., Insight into Data Mining Theory and Practice, Eastern
- 3. H. Witten, Ian & Frank, Eibe, Data Mining: Practical Machine Learning Tools and Techniques, Elsevier.
- 4. Poonia, Paul Raj, Fundamentals of Data Warehousing, John Wiley & Sons.

Porani Chamdra

5. Inmon, W. H., Building the Operational Data Store, John Wiley.
6. Shawkat Ali, B. M., Wasimi, Saleh A., Data Mining Methods and Techniques, Cengage Learning.

CO-PO MAPPING

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3	7	3	3	I	I	I	I	I	7	7	3	COt

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Multimedia Technology

Course Code: BBA(CAM) 313

L-3, Credits-3

Objective: The primary objective of this course is to familiarize the student with the concept of Multimedia, Motivation, Application of Multimedia, Multimedia Hardware and Software Requirements, Multimedia Industry, Production Cycle, Editing Multimedia Components and Multimedia on web.

Course Outcomes:

CO1: Apply the knowledge of the basic fundamentals components of Multimedia

CO2: To apply the animatic effects for basic multimedia formats CO3: Identify about compression and applying the video settings CO4: Functioning and creating of webpage with all the applications

Course Content

Unit I

Introductory Concepts: Multimedia - Definitions, Basic properties and Medium types.(Temporal and Non Temporal) . Multimedia Applications Uses of Multimedia, Introduction to making multimedia - The Stages of Project, Requirements to make good Multimedia, Multimedia Skills and Training .

Multimedia-Hardware and Software: Multimedia Hardware - Macintosh and Windows Production Platforms, Hardware Peripherals - Connections, Memory and Storage devices, Media Software - Basic tools, Making instant multimedia, Multimedia Software and Authoring tools, Production Standards. (12 Hours)

Unit II

Multimedia building blocks Creating & Editing Media Elements: Text, Image, Sound, Animation Analog/ Digital Video Data Compression: Introduction, Need, Difference of lossless/ Lossy Compression Techniques. Brief Overview to Different Compression Algorithms Concern to Text, Audio, Video and Images etc (10 Hours)

Unit III

Multimedia and the Internet: History, Internet Working, Connections, Internet Services, The World Wide Web, Tools for the WWW - Web Servers, Web Browsers, Web Page Makers and Editors, Plug-Ins and Delivery Vehicles, HTML, Designing for the WWW –Working on the Web, Multimedia Applications - Media Communication, Media Consumption, Media Entertainment, Media Games (10 Hours)

Unit IV

Multimedia-looking towards Future: Digital Communication and New Media, Interactive Television, Digital Broadcasting, Digital Radio, Multimedia Conferencing, Virtual Reality, Digital Camera. Assembling and Delivering a Multimedia Project-Planning and Costing, Designing and Producing, Content and Talent, Delivering, CD-ROM: The CD family, Production Process, CD-i – Overview – Media Types Technology

(10 Hours)

Suggested Readings: (Latest Editions)

1. Vaughan, Tay, Multimedia: Making it work, Tata McGraw Hill.

2. Steinmetz, Ralf & Naharstedt, Klara, Multimedia: Computing, Communications Applications, Pearson.

Poranin Chamdra

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- 3. Keyes, Jessica, Multimedia Handbook, Tata McGraw Hill.
- 4. Heath, Steve, Multimedia & Communication Systems, Focal Press, UK
- 5. Andleigh, K., & Thakkar, K. Multimedia System Design, PHI.
- 6. Rimmer, Steve, Advanced Multimedia Programming, McGraw Hill.

CO-PO MAPPING

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Block Chain Technology

Course Code: BBA (CAM) 315

L-3, Credits-3

Objective: The primary objective of this course is to identify significant research challenges and technical gaps existing between theory and practice in crypto currency domain and to quickly configure a new development platform to understand the applications of blockchain in cyber security, the integrity of information, E-Governance and other contract enforcement mechanisms.

Course Outcomes:

CO1: Explain design principles of Bitcoin and Ethereum.

CO2: Interact with a blockchain system by sending and reading transactions.

CO3: Design, build, and deploy a distributed application.

CO4: Evaluate security, privacy, and efficiency of a given blockchain system.

Course Content

Unit I

Introduction to Blockchain: Basic idea, Public Ledgers, Blockchain as Public ledgers, Bitcoin, Blockchain 2.0, Smart Contracts, Block in a Blockchain, Transactions, Distributed Consensus, The Chain and the Longest Chain, Crypto Currency to Blockchain 2.0, Permissioned Model of Blockchain.

(10 Hours)

Unit II

Basic Crypto Primitives: Cryptographic Hash Function, Properties of a hash function, Hash Pointer and Merkle tree, Digital Signature, Public Key Cryptography, A Basic Crypto Currency (10 Hours)

Unit III

Bitcoin Basics: Creation of coins, Payments and Double Spending, FORTH – the precursor for Bitcoin Scripting, Bitcoin Scripts, Bitcoin P2P Network, Transaction in Bitcoin Network, Block Mining, Block Propagation and Block Relay. (10 Hours)

Unit IV

Bitcoin Consensus: Distributed Consensus Importance, Distributed Consensus in Open Environments, Consensus in a Bitcoin Network, Consensus in Bitcoin- Bitcoin Consensus, Proof of Work (PoW), Hashcash PoW, Bitcoin PoW, Attacks on PoW and the Monopoly problem, Proof of Stake, Proof of Burn and Proof of Elapsed Time, The life of a Bitcoin Miner, Mining Difficulty, Mining Pool.

(12 Hours)

Suggested Readings: (Latest Editions)

- Narayanan, Arvind, Bonneau, Joseph, Felten, Edward, Miller, Andrew & Goldfeder, Steven Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction, Princeton University Press.
- 2. Antonopoulos, Andreas, Mastering Bitcoin: Programming the Open Blockchain, O'Reilly Publications.
- 3. Swan, Melanie, Bitcoin-Blueprint for a new economy, O'Reilly Publications.
- 4. Ammous, Saifedean, The Bitcoin Standard, Wiley Publications.
- 5. Wood, Gavin, ETHEREUM: A Secure Decentralized Transaction Ledger, Yellow paper.
- 6. Courey, A. K., Early Birds Gets the Bitcoin, Independent published.

Porani Chandra

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CO-PO MAPPING





E-Commerce

Course Code: BBA(CAM) 315

L-3, Credits-3

Objective: The course imparts understanding of the concepts and various application issues of e commerce like Internet infrastructure, security over internet, payment systems and various online strategies for e-commerce.

Course Outcomes:

CO1: To understand the business to business electronic commerce

CO2: Evaluate Strengths and Weaknesses, solve problems and make recommendations in business and

CO3: To evaluate problems posed by utilizing electronic commerce, including security, legal jurisdictions and effectiveness;

CO4: To be able to evaluate applications of electronic commerce in organizations and analyze the barriers to successful implementation of these technologies.

Course Content

Unit I

Introduction to E-Commerce: Meaning, nature, concepts, advantages, disadvantages and reasons for transacting online. Electronic Commerce. Types of Electronic Commerce, Electronic Commerce Models, Challenges and Barriers in E-Commerce environment: E-Commerce in India: Transition to E-commerce in India, Indian readiness for E-commerce. E-Transition challenges for Indian corporate. (10 Hours)

Unit II

E-Business Applications & Strategies: Electronic Markets, electronic Data Interchange, Internet Commerce Business & Revenue Models over Internet, Emerging Trends in E-Business, Digital Commerce, Mobile Commerce: Concepts, Benefits and Models, Emerging Trends in Mobile Apps; Internet based Business Models, Legal and Ethical Issues of E-Commerce.

(10 Hours)

Unit III

Electronic Payment System: Digital Payment Requirements, Electronic Payment System, Types of Electronic Payment Systems, Concept of e-Money, Infrastructure Issues and Risks in EPS, Electronic Fund Transfer.

Security Issues in E-Commerce: Need and concepts, Electronic Commerce security environment, security threats in E-Commerce environment, Basics of Encryption and Decryption (12 Hours)

Unit IV

E-commerce Applications: E-commerce applications in various industries, Emerging Trends in E Commerce, Mobile Commerce; Economic, Technological and Social Considerations, Regulatory and Ethical considerations in E-Commerce.

(10 Hours)

Suggested Readings (Latest Editions)

- 1. Wbiteley, David, E-commerce, Tata McGraw Hill.
- 2. Turban, Eframi, Lee, Jae, King, David & Chung, H. Michale, Electronic Commerce, Pearson Education.
- 3. Gary, Schneider, Electronic Commerce, Cengage Learning

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- 4. Chaffey, Dave, E-Business and E-Commerce Management- Strategy, Implementation and Practice, Pearson Education.
- 5. Bhaskar, Bharat, Electronic Commerce- Framework, Technologies and Applications, Tata McGraw Hill.
- 6. Hanson, W. and Kalyanam, E-Commerce and Web Marketing, Cengage Learning.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	3	3	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	2	3
CO3	3	3	3	3	3	3	3	3	3	3	2	3
CO4	3	3	3	3	3	3	3	3	3 (3	2	3

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Financial Markets And Institutions

Course Code: BBA(CAM) 319

L-3, Credits-3

Objective: The course aims to familiarize the learners with an overview of Financial Markets & Institutions in India.

Course Outcomes

CO1: Analyze the functioning of financial markets and Institutions in India.

CO2: Examine the functioning of money market and capital market.

CO3: Assess the impact of initiatives on financial inclusion.

CO4: Understand the Role and Functions of Financial Institutions.

Course Content

Unit I

Introduction to Financial System: Components of Financial System, Financial System and Economic Development, Financial Intermediaries, Overview of Indian Financial System, Financial Sector Reforms. (10 Hours)

Unit II

Money Market: Money Market – concept, role, functions and importance; Money market instruments; Reserve Bank of India (RBI)- structure and role; Money market operations, Monetary Policy Committee (MPC)- structure and role; Policy Rates. Impact of Monetary policy on Inflation and liquidity. (10 Hours)

Unit III

Capital market: Capital Markets –concept, role, functions and importance. Components of Capital market. Cash markets- Equity and Debt, Depository, Primary and Secondary Markets, Derivatives and commodity markets; Role of Stock Exchanges in India. Securities and Exchange Board of India (SEBI) – Role in capital market development and Investor Protection and Awareness. (10 Hours)

Unit IV

Banking and Other Financial Institutions: Commercial banks - classification; Payment Banks, Small Banks, Cooperative Banks; Recent initiatives like MUDRA financing scheme, Financial Inclusion; Non-Performing Assets (NPA)-Meaning, causes and Impact of NPAs on Banking Sector; Insolvency and Bankruptcy Code, 2016. Role and Importance of Non-Banking Financial Companies (NBFCs), Development Financial Institutions (DFIs), Housing Finance Institutions - National Housing Bank, HUDCO; Microfinance and Rural Credit-NABARD, Post Office Banks.

(12 Hours)

Suggested Readings: (Latest Editions)

- 1. Gordon, E. & Natarajan, K., Financial Markets and Services, Himalaya Publishing House.
- 2. Kumar, V., Gupta, K., & Kaur, M., Financial Markets, Institutions and Financial Services, Taxmann's Publications.
- 3. Khan M. Y., & Jain, P. K., Financial Services, McGraw Hill Publishing Company.
- 4. Khan, M. Y., Indian Financial System Theory and Practice, Vikas Publishing House.
- 5. Pathak, Bharati, Indian Financial System, Pearson Education.
- 6. Annual Reports: Reserve Bank of India, Ministry of Finance, Government of India.

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Talent Management

Course Code: BBA(CAM) 321

L-3, Credits-3

Objective: This course focuses on to discuss the issues from two perspectives: managing talent in organizations as well as managing one's own talents as an individual. In addition, the course will cover the hiring negotiation, the promotion negotiation, the firing decision, and HR-relevant cross-cultural negotiation issues.

Course Outcomes

CO1: To understand the concept of talent management

CO2: Competency to implement Talent Management Practices

CO3: Competency to develop leadership qualities among subordinates

CO4: To understand what is employee retention and emerging trends in HR

Course Content

Unit I

Introduction to Talent Management: Introduction, Meaning & Objectives, Role of Talent Management in building sustainable competitive advantage to a firm, Key Processes of Talent Management, Recruitment, Selection, Human Resource Planning, Retention, Talent vs. knowledge people, Source of Talent Management, Consequences of Failure in Managing Talent, Some suggestive tools for Managing Talent.

(10 Hours)

Unit II

Talent Acquisition: Job analysis-Method of collecting information, developing questionnaires, interviews, developing job description & job specification. Developing HR planning process (using MS-Excel and quantitative tools). Evaluation of factors affecting HRP, Strategic view of recruitment & selection. Talent Acquisition, Recruitment Process, Strategic Trends in Talent Acquisition, Talent acquisition management solutions.

(10 Hours)

Unit III

Employee Engagement: Preparing recruitment plan, E-recruitment (using various job portals), searching & downloading applicant profile by using job portals, selecting recruitment source, preparing recruitment budget, employer branding, formulating a recruitment strategy (specifically for Managerial/Executive jobs), Selection process, Use of assessment centres, selection errors & minimising selection errors, Reliability & Validity tests, Choosing the types of interviews.

(10 Hours)

Unit IV

Employee Retention: Comprehensive approach to Retaining employees, Managing Voluntary Turnover, dealing with Job Withdrawal, Strategic Compensation plan for Talent Engagement, Defining the Elements of Total Rewards, Integrated Rewards Philosophy, Designing Integrated Rewards, Sustainable Talent Management and Reward Model.

Emerging Trends in HR: Human Resource Audits, Human Resource Information System (HRIS), Human Resource Accounting (HRA), Contemporary development, and Cultural development, Business Process Reengineering, Contemporary Talent Management Issues and Challenges. (12 Hours)

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Suggested Readings: (Latest Editions)

1. Berger, L. A. & Berger, D., The Talent Management Handbook, McGraw Hill.

2. Reuff, Rusty & Stringer, Hank, Talent Force: A New Manifesto for the Human Side of Business, O'Reilly Publications.

3. Adler, Lou, The Essential Guide for Hiring & Getting Hired, Wiley Publications.

4. Joshi, Gowri & Vohra, Veena, Talent Management, Cengage Learning.

5. Gary, Dessler, Biju, Varkkey, Fundamentals of Human Resource Management, Pearson Publication.

6. Taylor, Stephen, Resourcing and Talent Management, Koganpage.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	2	3	2	2	3
CO2	3	3	3	3	3	2	2	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	2	2	3

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Sales and Distribution Management

Course Code: BBA(CAM) 323

L-3, Credits-3

Objective: The course aims to impart the knowledge and skills needed to manage the sales force and distribution functions in a business organization so as to help gain a competitive advantage.

Course Outcomes

CO1: Explore the nature and importance of sales management, types and skills of sales manager.

CO2: Demonstrate the personal selling process.

CO3: Analyze the ethical and legal issues in sales management.

CO4: Designing the Motivational and Compensation Plans of Sales Personnel.

Course Content:

Unit I

Introduction to Sales Management: Evolution of Sales Management. Scope and importance: Skills of a Sales Personnel, Types of Sales Managers; Penal Selling- Theories, Psychology in Selling, Buying Situations, Sales Process; Sales Forecasting Sales Territory Design. (10 Hours)

Unit II

Sales Force Management: Sales Organization structure: Sales Force Size; Recruitment & Selection of Sales force; Training, motivation and Compensation of Sales Force, Sales Quotas and Contests; Evaluation of Sales performance.

(10 Hours)

Unit III

Distribution Channels and Institutions: Functions of Intermediaries; Types and Role of Channel Intermediaries in India for Consumer and Industrial products; Retail -Structure, Types and Role, Strategies, Performance Measures, Franchising. Retail Scenario in India: Wholesaling-Features, Classification, Decisions, Trends and Future Scenario. (10 Hours)

Unit IV

Distribution Channel Design, Management and Logistics: Channel Strategy and Design; Selection, Motivation and Evaluation of Intermediaries; Managing Channel Dynamics, Relationships and Channel Conflict, Physical Distribution System -Objectives and Decision Areas: Introduction to Logistics and Supply Chain Management; Integration of Sales and Distribution Strategy. Ethical and Legal Issues in Sales and Distribution Management in Indian context. (12 Hours)

Suggested Readings: (Latest Editions)

- Still. K.R., Cundiff, E.W & Govoni. N.A.P, Sales Management-Decision Strategies and Cases, Pearson Education.
- 2. Tanner Jr., JF., Honeycutt Jr., E.D. and Erffmeyer, R.C., Sales Management, Pearson Education.
- 3. Donaldson, Bill, Sales Management, Principles, Process and Practice, Palgrave Macmillan.
- 4. Havaldar, K.K. & Cavale, V.M, Sales and Distribution Management-Text & Cases, Tata McGraw Hill Education Pvt. Ltd.
- 5. Jobber, David and Lancaster, Geoffery, Selling and Sales Management, Pearson Education.
- 6. Ingram, Thomas N., LaForge, Raymond W., Avila. Raman A., Schwepker, Jr., Williams M.R., Sales Management-Analysis and Decision Making, Routledge.

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	2	3	3	3	3
CO3	3	3	3	2	3	3	3	3
CO4	3	3	3	2	3	3	3	3

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Consumer Behaviour

Course Code: BBA(CAM) 325

L-3, Credits-3

Objective: To acquire an understanding of the psychological processes that underlie the effectiveness of marketing strategy in terms of impact on consumer behavior and to acquire a knowledge base that enables critical assessment of current and future metrics, research technologies and research data output.

Course Outcomes

CO1: Demonstrate how knowledge of consumer behaviour can be applied to marketing.

CO2: Identify and explain factors which influence consumer behaviour.

CO3: Relate internal dynamics such as personality, perception, learning motivation and attitude to the choices consumers make.

CO4: Study external determinants affecting consumer behavior

Course Content

Unit I

Introduction to Consumer Behaviour: Definition of C.B, Importance of C.B, Approaches to Study C.B, Basic Model Of C.B, Buying Decision process, Problem Recognition; Information Search, Alternative Evaluation – Decision rules & purchase, Outlet Selection, Post purchase behaviour & Customer Satisfaction, Types of Buying Behaviour, Role of Involvement; (10 Hours)

Unit II

Determinants to Consumer Behaviour: Attitude, Models and theories of attitude, Change in Attitude. Personality and self concept: Nature of personality, Theories of personality(Freudian, Jungian, Neo-Freudian & Trait theory), Personality and understanding consumer diversity, Self and self Image. (10 Hours)

Unit III

Influences to Consumer Behaviour: Culture Characteristics of Culture Defnamism of Culture Relevance of Sub Culture and Cross Culture on CB Indian Culture and Sub Culture Marketing Strategies and problems related to cross culture ii) Social Class Determinants of Social Class Objective Approach Composite – Variable Indices Social Class Mobility Applications Of social class to consumption iii) Family and life style Significance Family life cycle stages Influences on life cycle Applications of AlO Studies VALS system of classification (12 Hours)

Unit IV

External Determinants of Consumer Behaviour: Influence of Culture and Sub culture; Social Class, Reference Groups, Word of Mouth & Opinion Leadership; Family Influences (10 Hours)

Suggested Readings: (Latest Editions)

- 1. Schiffman, L.G, Wisenblit, J & Ramesh Kumar S., Consumer Behaviour, Pearson Education.
- 2. Gupta, S.L. & Paul, Sumitra, Consumer Behaviour, Sultan Chand & Sons Educational Publishers.
- 3. Hawkins, D.I, Motherbaugh, D. L. & Mookerjee, A., Consumer Behaviour, Building Marketing Strategy, McGraw Hill Education.
- 4. Solomon, Michael, Consumer Behaviour, Pearson Education.
- 5. Schiffman, Leon & Kanuk, Leslie, Consumer Behaviour, Pearson Education.
- 6. Thaler, Richard H., Misbehaving: The Making of Behavioral Economics, W. W. Norton Company.

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	. 3	3
CO4	3	3	3	3	3	3	3	3

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R Programming Lab

Course Code: BBA(CAM) 327

P - 2, Credits - 1

Objective: To be able to introduce core programming basics and program design with functions using R programming language.

Course Outcomes

CO1: Write, Test and Debug R programmes

CO2: Implementations of R programming for text processing

CO3: Application of R programming in Statistics

CO4: Connectivity of Relational Database.

Lab will be based on the Subject Code BBA(CAM) 305 - Data Analytics with R Programming containing:

- 1. Plotting various charts
- 2. Comparing means
- 3. Grouping
- 4. Functions Exploratory
- 5. Merging Data frames
- 6. RODBC & DBI Package

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	1	1	1	1	1	1	1	2	2	2	3
CO2	1	1	1	1	1	1	1	1	2	2	2	3
CO3	1	1	1	1	1	1	1	1	2	2	. 2	3
CO4	1	1	1	1	1	I	1	1	3	3	2	3

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SEMESTER VI

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Business Policy & Strategy Management

Course Code: BBA(CAM) 302

L-4, Credits-4

Objective: The course aims to acquaint the students with the nature, scope and dimensions of Business Policy and Strategy Management Process.

Course Outcomes:

CO1: Describe the concept of Business Policy, its evolution and strategic management.

CO2: Perform the SWOT analysis.

CO3: Develop skills to formulate various strategies in different Business portfolio models.

CO4: Discover the issues in Strategy Implementation.

Course Content

Unit I

Introduction: Nature, Scope and Importance of Business Policy; Evolution; Forecasting, Long-Range Planning, Strategic Planning and Strategic Management.

Strategic Management Process: Formulation Phase — Vision, Mission, Objectives and Strategy; Implementation phase — Strategic Activities, Evaluation and Control. (14 Hours)

Unit II

Environmental Analysis: Need, Characteristics and Categorization of Environmental Factors; Approaches to the Environmental Scanning Process — Structural Analysis of Competitive Environment; ETOP a Diagnosis Tool.

Analysis of Internal Resources: Strengths and Weakness; Resource Audit; Strategic Advantage Analysis; Value-Chain Approach to Internal Analysis; Methods of Analysis and Diagnosing Corporate Capabilities — Functional Area Profile and Resource Deployment Matrix, Strategic Advantage Profile; SWOT analysis. Mckinsey's 7s Framework.

(14 Hours)

Unit III

Formulation of Corporate Strategies: Approaches to Strategy formation; Major Strategy options — Stability, Growth and Expansion: Concentration, Integration, Diversification, Internationalization, Cooperation and Digitalization, Retrenchment, Combination Strategies. (14 Hours)

Unit IV

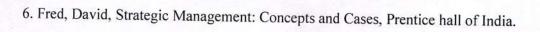
Choice of Business Strategies: BCG Model; Stop-Light Strategy Model; Directional Policy Matrix (DPM) Model, Product/Market Evolution — Matrix and Profit Impact of Market Strategy (PIMS) Model.

Major Issues involved in the Implementation of strategy: Organizational Cultural and Behavioural factors, Organization Structure; Role of Leadership. (14 Hours)

Suggested Readings: (Latest Editions)

- 1. Kazmi, Azhar, Strategic Management, McGraw Hill Education Company.
- 2. Kachru U, Strategic Management, McGraw Hill Education Company.
- 3. Dhir S, Cases in Strategic Management, McGraw Hill Education Company.
- 4. Walker, Gordon, Marketing Strategy, McGraw Hill Education Company.
- 5. Weelen, Concepts in Strategic Management and Business Policy, Pearson Education.

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3

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(10 Hours)

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI BACHELOR OF BUSINESS ADMINISTRATION (COMPUTER AIDED MANAGEMENT)

Digital Marketing

Course Code: BBA(CAM) 304

L-3, Credits-3

Objective: This course aims at creating an understanding of the concepts and techniques of internet and digital marketing so as to exploit the opportunities of this medium to support the organization's marketing activities

Course Outcomes:

CO1: Interpreting the concept of Digital Marketing.

CO2: Assess the online buyer behavior and models.

CO3: Explore Digital promotional techniques.

CO4: Acquire skills to take various decisions related to online marketing.

CO5: Attain skills to exploit the opportunities of this medium to support the organization's marketing activities.

Course Content

Unit I

Introduction to Digital Marketing: Digital Marketing meaning scope and importance, Internet versus traditional marketing communication, internet microenvironment; Use of Business to Consumer and Business to Business Internet Marketing; Internet marketing strategy. (12 Hours)

Unit II

Online buyer behavior and Models: The Marketing Mix (7- Ps) in online context. Managing the Online Customer Experience: Planning website design, Understanding site user requirement, site design and structure, developing and testing content, Integrated Internet Marketing Communications (IIMC); Objectives and Measurement of Interactive marketing communication (10 Hours)

Unit III

Digital Promotion Techniques I: Email Marketing, Opt-in-e-mail - Permission Marketing, Online PR, Interactive Advertising, Online Partnerships, Viral Marketing, Blogs. Search Engines- Search Engine Marketing (SEM), Search Engine Optimization(SEO); Website Optimization, Content Marketing.

Unit IV

Digital Promotion Techniques II: Social Media Marketing - Designing content for social media marketing, Campaign management, tracking SMM performance; Mobile Marketing — advertising on mobile devices, mobile apps, tracking mobile marketing performance.

Introduction to Web Analytics — Meaning, types, Key Metrics and tools. Legal and Ethical Issues in Digital Marketing.

(10 Hours)

Suggested Readings: (Latest Editions)

- 1. Chaffey, D., Ellis-Chadwick, F., Johnston, K. and Mayer, R., Internet Marketing: Strategy, Implementation and Practice, Pearson Education.
- 2. Strauss, Judy and Frost, Raymond, E-Marketing, PHI Learning Pvt. Ltd.

3. Roberts, M.L., Internet Marketing, Cengage Learning.

4. Hanson, W. and Kalyanam, e-Commerce and Web Marketing, Cengage Learning.

5. Shainesh G. and Sheth, Jagdish N., Customer Relationship Management- A Strategic Perspective, Macmillan India Ltd.

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	1	3	3	3	2
CO2	3	3	3	1	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	2	3	3	3	3
CO5	3	3	3	2	3	3	3	3

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Introduction to Artificial Intelligence

Course Code: BBA(CAM) 306

L-3, Credits -3

Objective: To learn the basics of designing intelligent agents that can solve general purpose problems, represent and process knowledge, plan and act, reason under uncertainty and can learn from experiences.

Course Outcomes:

CO1: Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.

CO2: Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.

CO3: Understand the basics of robotics and its applications in various fields

CO4: Understanding of the fundamental issues and challenges of machine learning

Course Content

Unit I

Introduction: Introduction to intelligent agents Problem solving: Problem formulation, uninformed search strategies, heuristics, informed search strategies, constraint satisfaction Solving problems by searching, state space formulation, depth first and breadth first search, iterative deepening. (10 Hours)

Unit II

Logical Reasoning: Logical agents, propositional logic, inferences, first-order logic, inferences in first order logic, forward chaining, backward chaining, unification, resolution (10 Hours)

Unit III

Game Playing: Scope of AI -Games, theorem proving, natural language processing, vision and speech processing, robotics, expert systems, AI techniques- search knowledge, abstraction. (10 Hours)

Unit IV

Introduction to Machine Learning: Definition of learning systems, Goals and applications of machine learning.

Aspects of developing a learning system: training data, concept representation, Function approximation and Logistic Regression

Types of Learning: Supervised and Unsupervised and Reinforcement Learning and Overview of classification: setup, training, test, validation dataset, over fitting. (12 Hours)

Suggested Readings: (Latest Editions)

1. Rich and Knight, Artificial Intelligencel, Tata McGraw Hill

2. Russel, S. & Norvig, P., Artificial Intelligence – A Modern Approach, Pearson Education.

3. Mitchell, Tom M., Machine Learning, McGraw Hill Education.

4. KM Fu, Neural Networks in Computer Intelligence, McGraw Hill.

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- 5. Bishop, Christopher, Neural Networks for Pattern Recognition. New York, NY: Oxford University Press.
- 6. Alpaydin, Ethem, Introduction to Machine Learning, MIT Press, Prentice Hall of India.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	1	2	2	1	2	3	3	3	3	3
CO2	3	2	1	2	2	1	2	3	3	3	3	3
CO3	3	2	1	2	2	1	2	3	3	3	3	3
CO4	3	2	1	2	2	1	2	3	3	3	3	3

Pranir Chamdra

Major Project

Course Code: BBA(CAM) 308

Credits - 6

Course Outcomes:

CO1: Apply all theoretical concepts learned in research methodology.

CO2: Articulate a clear research objective with accurate scope and limitations of the study.

CO3: Identify an appropriate sample size for a study.

CO4: Choose the appropriate data collection tools for accurate, authentic and complete data collection.

CO5: Study the data using techniques appropriate to the Research Design.

CO6: Analyze data using parametric techniques and conduct Univariate analysis.

CO7: Draw conclusions based on the results from the analysis

During the sixth semester each student shall undertake a project to be pursued by him / her under the supervision of an Internal Supervisor to be appointed by the Director / Principal. The project should preferably be based on primary data. Both the subject, the name of the Supervisor will be approved by the Director / Principal of the Institution. The Project Report in duplicate along with one soft copy will be submitted prior to the commencement of the End Term Examination of the Sixth Semester. Project Report shall carry 100 marks. It shall be evaluated for 60 marks by an External Examiner to be appointed by the University and for the rest of the 40 marks by an Internal Examiner to be appointed by the Director / Principal of the Institution.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	1	1
CO2	3	3	3	3	1	3	1	1
CO3	3	3	3	3	3	1	1	1
CO4	3	2	3	3	3	3	1	1
CO5	1	3	3	3	1	1	2	1
CO6	1	1	1	3	1	1	3	1
CO7	3	3	3	3	3	3	1	1

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Cloud Computing

Course Code: BBA(CAM) 310

L - 3, Credits - 3

Objective: This course gives students an insight into the basics of cloud computing along with virtualization, cloud computing is one of the fastest growing domain from a while now. It will provide the students basic understanding about cloud and virtualization along with it how one can migrate over it.

Course Outcomes:

CO1: Understand the concepts, characteristics and benefits of cloud computing

CO2: Apply fundamental concepts in cloud infrastructures.

CO3: Discuss system, network and outline their role in enabling the cloud computing system model.

CO4: Analyze various cloud programming models and apply them to solve problems on the cloud.

Course Content

Unit I

Cloud Computing Overview – Services of Internet, Origins of Cloud computing – Cloud components – Essential characteristics – On-demand self-service, The vision of cloud computing – Characteristics, benefits and Challenges ahead (12 Hours)

Unit II

Cloud Computing Architecture-Introduction – Internet as a Platform, The cloud reference model - Types of clouds - Economics of the cloud, Computing platforms and technologies, Cloud computing economics, Cloud infrastructure - Economics of private clouds - Software productivity in the cloud - Economies of scale: public vs. private clouds.

(10 Hours)

Unit III

Virtualization: Virtualization (CPU, Memory, I/O) Case Study: Amazon EC2 Software Defined Networks (SDN) Software Defined Storage (SDS)

(10 Hours)

Unit IV

Cloud Storage: Introduction to Storage Systems Cloud Storage Concepts Distributed File Systems (HDFS, Ceph FS), Cloud Databases (HBase, MongoDB, Cassandra, DynamoDB) and Cloud Object Storage (Amazon S3, OpenStack Swift, Ceph). (10 Hours)

Suggested Readings (Latest Editions):

 Kavis, Michael J., Architecting the Cloud: Design Decisions for Cloud Computing Service Models, John Wiley & Sons Inc.

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- 2. Buyya, R., Broberg, J., & Goscinski, A.M., Cloud Computing: Principles and Paradigms, John Wiley & Sons.
- 3. Shroff, G., Enterprise Cloud Computing Technology, Architecture, Applications, Cambridge University Press.
- 4. Sosinsky, B., Cloud Computing Bible , Wiley Publications India.
- 5. Velte, A.T., Toby, J. & Elsenpeter, V.R., Cloud computing a practical approach, TATA McGraw-Hill
- 6. Buyya, R., Vecchiola, C. & Selvi, T.S. Mastering Cloud Computing, Elsevier.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	1 =	2	1	2	2	3	3	3	3	3
CO2	3	2	1	2	1	2	2	3	3	3	3	3
CO3	3	2	1	2	1	2	2	3	3	3	3	3
CO4	3	2	1	2	1	2	2	3	3	3	3	3

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Cyber Security

Course Code: BBA(CAM) 312

L-3, Credits-3

Objective: The objective of this subject is to give understanding of the basic concepts and issues in Cyber Security and their application in IT Field.

Course Outcomes:

CO1: Analyze and evaluate the cyber security and crypography needs of an organization.

CO2: Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.

CO3: Measure the performance and troubleshoot cyber security systems.

CO4:Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools.

Course Content

Unit I

Introduction to Cyber Security: Cyber Security Concepts: Cyber security issues and challenges, goals, architecture, Attacks,

Introduction to Cyber Threat: Definition of Cyber Crime, Classification, Current Threats and Trends, Diversity of Cyber Crime, Cyber Hate Crimes, Cyber Terrorism, Security Services and Mechanisms.

Cryptography: Stream ciphers, Cryptanalysis of linear congruential generators, Block ciphers: Pseudorandom functions and permutations (PRFs and PRPs), PRP under chosen plaintext attack and chosen ciphertext attack, DES, AES, modes of operation. (12 Hours)

Unit II

Responding to Cyber Crime: Cyber Strategy, National Security Strategy, Cyber Security Strategy, Organized Crime Strategy, Cyber Crime Strategy, Policy Cyber Crime, International Response, National Cyber Security Structure, Strategic Policy Requirements, Police and Crime Commissioners Investigating Cyber Crime: Preventing Cyber Crime, Password Protection, Get Safe Online, Cyber Security Guidance for Business

Cyber Crime Investigation Skills, Criminal Investigation, Code of Ethics, Evidence, Hi Tech Investigations, Capturing and Analyzing Digital Evidence (10 Hours)

Unit III

Security Management: Disaster Recovery, Digital Signature, Ethical Hacking, Penetration Testing, Computer Forensics.

System Security: Desktop Security, Programming Bugs and Malicious Code, Database Security, Operating System Security: Designing Secure Operating Systems, OS Security Vulnerabilities.

(10 Hours)

Porami Chamadra



Unit IV

Cyber Law and Standards: ISO 27001, Cyber Law (Information Technology Act, 2000), International Standards maintained for Cyber Security, Security Audit, Investigation by Investing Agency, Cyber Security Solutions (10 Hours)

Suggested Readings(Latest Editions):

- 1. Halt, T. & Bossler, A.M., Cybercrime and Digital Forensics: An Introduction, Routledge Taylor and Francis Group.
- 2. Schell, B.H. & Martin, C., Cybercrime, ABC CLIO Inc, California.
- 3. Bishop, M., Computer Security: Art and Science, Addison-Wesley.
- 4. Das, A., Computational Number theory, CRC Press.
- 5. Boneh, D. & Shoup, V., A Graduate Course in Applied Cryptography,
- 6. Gertz, M. & Jajodia, S., Handbook of Database Security-Applications and Trends, Springer.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	2	1	1	2	2	3	3	3	3	3
CO2	3	3	2	1	1	2	2	3	3	3	3	3
CO3	3	3	2	1	1	2	2	3	3	3	3	3
CO4	3	3	2	1	1	2	2	3	3	3	3	3

Peaning Chambras



Investment Analysis & Portfolio Management

Course Code: BBA(CAM) 314

L-3, Credits-3

Objective: To familiarize with the concept of Investment and Portfolio Management. The course imparts skills for fundamental and technical analysis and to understand the recent trends in the area of investments.

Course Outcomes:

CO1: Assess the risk profile of investors and prepare an appropriate investment portfolio

CO2: Analyze investment alternatives and construct a portfolio to minimize risk and maximize returns.

CO3: Calculate risk and return for a portfolio and create a minimum risk portfolio.

CO4: Evaluate and compare the Intrinsic and Market Value of a share.

CO5: Examine the portfolio management techniques of Mutual Funds.

CO6: Analyze contemporary trends in Investment options available.

Course Content

Unit I

Introduction to Investment and Portfolio Management: Investment Process; Investment Vs Speculation, Avenues for investment- securities, features and classes; Risk- concept, elements, types (systematic and unsystematic); Measurement of risk of individual security and portfolio. (10 Hours)

Unit II

Modern Portfolio Theory- Assumptions and Applications, Creation of Efficient Frontier, Minimum risk portfolio, Concept of CML and SML, Factors influencing valuation and prices of securities; Capital Asset Pricing Model. Value of Equity - Constant growth model, Dividend capitalization Model, Valuation of Bonds & Debentures- Current Yield, YTM, YTC. (11 Hours)

Unit III

Fundamental and Technical Analysis: Economy, Industry and Company Analysis, Fundamental Analysis, Technical Analysis – Charts types, techniques and importance. Dow Theory, Efficient Market Hypothesis – Strong, Weak and Semi Strong Efficiency in Markets, Behavioural Finance.

(10 Hours)

Unit IV

Recent Trends in Investments: Mutual Fund- concept and types; Debt, Equity, Balanced, Tax Saving, Offshore Fund, Regulation of Mutual Fund, Money market mutual funds. Assets Under Management, Net Asset Value. Exchange Traded Funds, Real Estate Investment Trust, Value Investing, Green Investing, Environmental Social Governance based Investing, Socially Responsible Investing.

(11 Hours)

Poranir Chamdra



Suggested Readings: (Latest Editions)

- 1. Reilly & Brown, Investment Analysis and Portfolio Management, McGraw Hill Education.
- 2. Fisher & Jordan, Security Analysis and Portfolio Management, Pearson Education.
- 3. Chandra, P., Investment Analysis & Portfolio Management, Tata McGraw Hill Education.
- 4. Kevin, S., Security Analysis and Portfolio Management, PHI Learning.
- 5. Ranganatham M., & Madhumathi R., Security Analysis and Portfolio Management, Pearson Education
- 6. Pandian, P., Security Analysis and Portfolio Management, Vikas Publishing House.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3
CO6	3	3	3	3	3	3	3	3

Pranir Chamaba



Organizational Development

Course Code: BBA (CAM) 316

L-3, Credits-3

Objective: The course aims to provide an overview of learning and organizational development in relation to the discipline of psychology.

Course Outcomes:

CO1: Gaining knowledge about organizational development process.

CO2: How to change and develop organizations.

CO3: Better understanding of the change management model.

CO4: Skills needed to develop an action plan for the development process.

CO5: Better understanding of change resistance and how to handle it.

Course Content

Unit I

Organisational development-An introduction: Organisational Development – Meaning and Definition, History of OD, Relevance of Organisational Development for Managers, Characteristics of OD, Assumptions of OD

(10 Hours)

Unit II

Role of OD Practitioner: OD Practitioner, Role of OD Professional in Organisations, Competencies Required for an OD Professional, Scope of the Role of an OD Professional, Process of OD: Process of OD, Components of OD program, OD program phases, Making an Entry, Developing Contract, Launch, Situational Evaluation, Closure (11 Hours)

Unit III

Values and Ethics in OD: Professional Values, Value Conflict and Dilemma, OD Values and Changing Themes over Time, Ethics in OD, Ethical Dilemmas in Practicing OD, Factors that Influence Ethical Judgement, Learning Organisation, Senge's Approach Nonaka& Takeuchi's Approach, Executive View on Organisational Learning, Reality Checklist, Seven Steps of Initiating Organisational Learning (10 Hours)

Unit IV

Future of OD: Organisational Development and Globalization, Emerging Trends in OD- Expanding the use of OD, Combining traditional "hard" business competencies and OD, Creating whole system change, Using OD to facilitate partnerships and alliances, Enhancing constant learning, Trends within the Organisation, Debates, Presentations, Role plays and Group Discussions on Organisation Topics, Audio and Video Recording of the above exercises to improve the non-verbal communication and professional etiquettes

(11 Hours)

Pravir Chamdra



Suggested Readings: (Latest Editions)

1. French, W. L., Bell, C. H. & Vohra, V., Organization Development, Pearson.

2. Dwivedi, R. S., Human Relations and Organization Behaviour- A Global Perspective. Macmillan.

3. Kumar, A. Organizational Behaviour Theory and Practice. Anmol Publications.

4. Luthans, F., Organizational Behaviour, McGraw Hill.

5. Newstrom, J.W. & Davis, K., Human Behaviour at Work, Tata McGraw Hill.

6. Robbins, S.P., Organizational Behaviour. Prentice Hall.

CO-PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3	3	3	3	3	3	3
CO2	3	3	3	3	3	3	3	3
CO3	3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3

Pravir Chambra