



VELS
UNIVERSITY



VELS INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS)
(Deemed to be University Estd. u/s 3 of the UGC Act, 1956)

PALLAVARAM - CHENNAI - INDIA
NAAC ACCREDITED

SCHOOL OF MANAGEMENT STUDIES & COMMERCE

DEPARTMENT OF MANAGEMENT STUDIES

MBA BUSINESS ANALYTICS

MBA BUSINESS ANALYTICS

The following outcomes have been identified by the School of Management and commerce, Faculty Council, as important for students to be able to perform at the conclusion of the MBA program. The MBA curriculum has been mapped to these outcomes, which are regularly assessed to identify levels of student achievement and areas of improvement. Students who are Graduates of the Master of Business Administration degree program will be able to:

- PO1:** Communicate professionally as a business leader both orally and in writing to bridge diverse perspectives, cultures, and disciplines
- PO2:** Analyze ethical implications of business practices using advanced levels of ethical reasoning and legal implications
- PO3:** Perform strategic analysis effectively
- PO4:** Apply quantitative methods to business problem solving
- PO5:** Assess global opportunities and challenges for business growth
- PO6:** Collaborate effectively as a business leader
- PO7:** Demonstrate knowledge, skills and techniques to execute projects effectively and efficiently
- PO8:** Demonstrate knowledge, skills and techniques to manage supply chain operations effectively and efficiently
- PO9:** Demonstrate the legal knowledge and skills needed to identify and solve organizational problems in for shipping and logistics using a proper documentation and costing for decision-making.
- PO10:** Demonstrate awareness of their personal values and the effect of those values on their decision-making within an organization
- PO11:** Evaluate whether an organization's plans and actions align with its values.
- PO12:** Demonstrate the knowledge and skills to manage personnel to meet changing organizational needs in a business environment. Evaluate the implications of changing environmental factors on organizational choices within a global environment.

Program Specific Outcomes – MBA Business Analytics

- PSO1:** To comprehend the practice of iterative, methodical exploration of an organization's data with emphasis on statistical analysis. Business analytics is used by companies committed to data-driven decision making to automate and optimize business processes.
- PSO2:** To anticipate needs and the analytical perspective provides clearer insights through data visualization and the data gathered is vital for statistical analysis, which in turn is essential for decision making.
- PSO3:** The strategic perspective focuses on the holistic impact of the initiative. It's the most "big-picture" approach, usually focusing on competencies, competitive advantage, and overall systems and supported by evidence of best-practice, linkages to strategic objectives and reference to market influences.
- PSO4:** The Competitive advantage of analytics is multi-disciplinary activity: the value from insight comes not from the activity but from the execution, A business intelligence (BI) and analytics strategy empowers with the right information at the right time.
- PSO5:** The Advanced analytics tools enable deeper insights and discovery that will challenge business assumptions using data can help companies save thousands of pounds, improve their procurement efficiency, develop their marketing strategies, support business growth and, critically, differentiate themselves from competitors.

Vels University, Pallavaram, Chennai

SCHOOL OF MANAGEMENT STUDIES

BOARD OF STUDIES MEMBERS

MBA (GEN), MBA (LSM), MBA (LSCM) and MBA(BA)

Sl.No	Name & Address	Designation
1.	Dr.K.S.Meenakshisundaram, Director, School of Management Studies, Vels University,Chennai-600117	Chairperson
2.	Dr.R.Thenmozhi, Professor and Head, Department of Management Studies, Madras University, Chennai	External Expert
3.	Mr.K.V.V.Giri President CCHA, M/S Vaishnavi freight logistics Pvt ltd.	External Expert
4.	Mrs.Sripriya, Operations Programme Manager, TCS	Alumni
5.	Dr.S.Vasantha , Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
6.	Dr.S.Preetha, Associate Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
7.	Dr.G.Rajini Associate Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
8.	Dr.P.Shalini Associate Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
9.	Dr.P.G.Thirumagal Assistant Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member
10.	Dr.Madhumita.G Assistant Professor, School of Management Studies, Vels University,Chennai-600117	Internal Member



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PALLAVARAM - CHENNAI - INDIA

NAAC ACCREDITED

MBA

BUSINESS ANALYTICS

Curriculum And Syllabus

(Based on Choice Based Credit System)

Effective from the Academic year

2016-2017

Department of M.B.A

School of Management Studies

**MBA - BUSINESS ANALYTICS
CURRICULUM**

SEMESTER I

Total No of Credits: 90

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
16CMBN11	Applied Statistics for Decision Making	3	1	0	4
16CMBN12	Macro Economics in Global Economy	4	0	0	3
16CMBN13	Financial Analysis and Reporting	3	0	0	3
16CMBN14	Organizational Behavior	3	0	0	3
16CMBN15	Accounting for Managers	3	1	0	4
16CMBN16	Research Methodology	3	0	0	3
16CMBN17	Business Communication & Soft skills	3	0	0	3
16GMBN--	Generic Elective – I	2	0	0	2
16PMBN11	Database Management & SQL (Practical)	0	0	2	1
16PMBN12	Emerging area of Business Analytics* (Practical)	0	0	2	1
16MMBN11	Mini Project in Big Data and Analytics	0	0	0	2
		24	2	4	29

SEMESTER II

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
16CMBN21	Applied Operations Research	3	1	0	4
16CMBN22	Econometrics	3	1	0	4
16PMBN22	Foundation course in Business Analytics (Cognos Insight)*	0	0	2	1
16PMBN21	Spreadsheet Modeling (Practical)	0	0	4	1
16CMBN23	Business Intelligence	3	0	0	3
16CMBN24	Project Management	3	0	0	3

16CMBN25	Data Cleaning, Normalization and Data Mining	4	0	0	3
16GMBN--	Generic Elective – II	2	0	0	2
16IMBN21	Internship – Viva Voce				2
		18	2	6	23

SEMESTER III

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
16PMBN31	Foundation Course on Predictive Analysis (IBM SPSS)* (Practical)	0	0	2	1
16PMBN32	Foundation Course in Descriptive Analysis (IBM) * (Practical)	0	0	2	1
16CMBN31	Applied Business Analytics	4	0	0	3
16DMBN--	Discipline Specific Elective-I	4	0	0	3
16DMBN--	Discipline Specific Elective II	4	0	0	3
16DMBN--	Discipline Specific Elective-III	4	0	0	3
16GMBN--	Generic Elective-III	4	0	0	3
16GMBN--	Generic Elective-IV	4	0	0	3
16GMBN--	Generic Elective V	4	0	0	3
16PMBN33	Foundation course in Hadoop (IBM Hadoop)*	0	0	2	1
		28	0	6	24

SEMESTER IV

Code	Course	Hour / Week			Credits
		Lecture	Tutorial	Practical	
16DMBN--	Discipline Specific Elective –IV	4	0	0	3
16PMBN41	Foundation course in Big Data Analytics * (Practical)	0	0	2	1
16RMBN41	Project Work	0	0	0	10
		4	0	2	14

List of Discipline Specific Elective (DSE)

S.No	Subject Code	Subjects
1	16DMBN34	SAP FICO
2	16DMBN35	SAP SD
3	16DMBN36	SAP MM
4	16DMBN37	SAP HCM
5	16DMBN38	Stochastic Modeling
6	16DMBN39	Simulation Modeling
7	16DMBN40	Healthcare Analytics
8	16DMBN41	Social and Web Analytics
9	16DMBN42	R Programming
10	16DMBN43	HR Analytics
11	16DMBN31	Operations and Supply Chain Analytics
12	16DMBN44	Pricing Analytics for Revenue Management
13	16DMBN45	Modeling Techniques and IT for Operations Management
14	16DMBN46	Ethical and Legal Aspects of Analytics
15	16GMBN32	Advanced Research Methods and Predictive Analysis
16	16DMBN33	Business Optimization and Big Data Analysis

List of Generic Electives (GE)

S.No	Subject Code	Subjects
1	16GMBN34	E-Business Management
2	16GMBN35	E-technology & Management
3	16GMBN36	E-Marketing
4	16GMBN37	Electronic Commerce
5	16GMBN38	Time Series Analysis
6	16GMBN22	Human Resource Management
7	16GMBN39	Data Security
8	16GMBN40	Marketing and Retail Analytics
9	16GMBN31	Cloud Computing
10	16GMBN11	Personality Development
11	16DMBN32	Production and Operations Management
12	16GMBN41	E-Governance & Cyber Law
13	16GMBN42	Economic Analysis and Decision Making
14	16GMBN43	Business Strategy
15	16GMBN33	Financial Planning Data Modeling and Mining

16CMBN11 APPLIED STATISTICS FOR DECISION MAKING 3 1 0 4

Course Objective:

- The basic aim of this course is to impart knowledge of basic statistical tools & techniques with emphasis on their application in Business decision process and Management.
- Statistical analysis informs the judgment of the ultimate decision-maker—rather than replaces it—some key conceptual underpinnings of statistical analysis will be covered to insure the understandability of its proper usage.

Course Outcomes:

- CO-1: To facilitate objective solutions in business decision making under subjective conditions.
- CO-2: To enhance knowledge in probability theory
- CO-3: To understand normality and its distribution concepts.
- CO-4: To stress the need for collection of data and its dispersion techniques.
- CO-5: To apply time series analysis in market prediction rates.
- CO-6: To draw conclusions over the hypothetical situations.
- CO-7: To determine the relationship between dependent and independent variables.
- CO-8: To measure the trend setting factors for projection of sales and demand curves.
- CO-9: To extract the variance among the factors of study concerned.
- CO-10: To classify the distribution of data spread.

UNIT I	INTRODUCTION	12
Introduction to Statistics - Collection of Data - Measures of Central Tendency & Dispersion in Frequency Distribution		
UNIT II	PROBABILITY THEORY	12
Probability Theory– Addition, Multiplication & Baye’s Theorem. Test for Normality. Skewness & Kurtosis		
UNIT III	CORRELATION	12
Correlation-Karl Pearsons and Rank Correlation. Regression(linear)		
UNIT IV	HYPOTHESIS TESTING	12
Hypothesis Testing –Test for Single Mean & Two Mean– Chi-Square test, F test – ANOVA.		
UNIT V	TESTS	12
Index Nos-Unweighted and Weighted-Test of Consistency. Time Series Analysis-Measurement of Secular Trend		

Total – 60 Hours

Text Books:

1. R.S.N. Pillai, V. Bagavathi, "Statistics", S.Chand Limited, 7th Ed, 2008
2. N.D. Vohra, "Business Statistics", Tata McGraw-Hill Education, 2nd Ed, 2013
3. G. V. Shenoy, Uma K. Srivastava, S. C. Sharma, "Business Statistics", New Age International, 2nd Ed, 2005
4. Beri, "Business Statistics" Tata McGraw Hill, 2nd Ed, 2009

References:

1. Keller. G, "Statistics for Management", Cengage Learning, 1st Ed, 2009.
2. J. K Sharma, "Business Statistics", Pearson, 2nd Ed, 2010.
3. Arora PN & others, "Complete Statistical Methods", S. Chand, 3rd Ed, 2010

16CMBN12 MACRO ECONOMICS IN GLOBAL ECONOMY 4 0 0 3**Course Outcome:**

- Co-1: Analyze the changes in the macro economic indicators
- Co-2: Build the economic policy suitable for the open and closed economy.
- Co-3: Suggest a feasible solution for the inflationary situation.
- Co-4: Estimate the macroeconomic indicators
- Co-5: Distinguish the fixed and floating exchange rates

Unit I 12

Macro Economics and Global Economy – Globalization – Features – Advantages and Disadvantages – Globalization and Stability of the International Financial System

Unit II 12

National Income – Real and Nominal GDP – Stock Market Crash and the Great Depression- Price and Inflation – Meaning – Types – Effects – the ASAD Model – Cost Push and Demand Pull Inflation and Inflation as a Monetary Phenomenon – Effects of Inflation – Controlling Inflation – Anti-inflationary Measures

Unit III 12

Macroeconomic Policies – Objectives – Limitations – Macro Economic Policies in Open and Closed Economies – Monetary and Fiscal Policy in Open and Closed Economy – Migration – Globalization – Labour Market

Unit IV 12

Money - Demand for Financial Assets – Asset Market Equilibrium – Liquidity Preference Theory- Liquidity Trap – The ECB – Monetary Base – Controlling of Money Supply – Open

Market Operations – German Hyper Inflation – Inflation and Open Economy – IS and LM Curve in Closed and Open Economy

Unit V

12

Exchange Rate – Purchasing Power Parity Theory – Foreign Exchange Market – Fixed, Variable Floating Rates – Inter-dependence in Exchange Market

Total – 60 hours

REFERENCE BOOKS:

M.L. JHINGAN – MACRO ECONOMICS

S. SANKARAN – MACRO ECONOMICS

16CMBN13 FINANCIAL ANALYSIS AND REPORTING 3 0 0 3

COURSE OBJECTIVES:

- The objective of the course is to provide students with hands on experience in financial statement analysis.
- Students will be exposed to general tools of financial analysis, theoretical concepts, and practical valuation issues.
- Students should be comfortable with using firm's financial statements to develop understanding of their performance and to establish basis for making reasonable evaluation estimates.

Course Outcomes:

- CO1 - Describes and apply the basic techniques of financial statement analysis
- CO2 - Explain the relationship between strategic business analysis, accounting analysis and financial analysis;
- CO3 - Identify and utilise value-relevant information contained within financial statements;
- CO4 - Recognize and explain the fundamental role of accounting numbers in the valuation of entities and the key financial claims on these entities assets (equity and debt securities);
- CO5 - Understand the impact of financial reporting choices on the usefulness of reported earnings to predict future performance;
- CO6 - Prepare a written analysis of a listed company, which incorporates and synthesizes the strategic, accounting and financing techniques covered in the course;

- CO7 - Conduct applied business research (including locating, critically interpreting and evaluating firm-specific financial information);
- CO8 – Analyse the ratios for M & A and restructuring.
- CO9 – Forecast the future trend through time series analysis
- CO10 – Apply the knowledge to compare GAAP and IFRS.

UNIT 1: Introduction to financial analysis

12

Finance and accounting – meaning –Types of companies - Financial statement analysis – on the basis of materials used – on the basis of modus operandi – Comparing financial and non-financial listed companies performance through annual as a bench marking against competitor and industry.

UNIT 2: Financial analysis through ratios

12

Accounting analysis – Factors influencing accounting quality – Steps in accounting analysis – Drivers of firms profitability and growth – Measuring overall profitability – Decomposing profitability – Measuring earnings - Evaluating Investment management – Liquidity analysis and net trade cycle - Evaluating financial management& leverage analysis – Assessing sustainable growth rate of companies – Assessing historical pattern of key ratios among financial (CAMEL analysis) and non financial firms – Analysis of cash flow

UNIT 3: Prospective and Credit analysis

12

Prospective analysis – Techniques - Elements of detailed forecast – Sensitivity analysis – Decision tress analysis of capital budgeting - Credit analysis – Market for credit –Credit analysis process –Factors driving debt rating – Kalpan – Urwitz model of debt rating – Prediction of distress and turnaround – MDA, PCA and RPA

UNIT 4: M & A and Equity analysis

12

Mergers and acquisition – Motivations for M & A – Valuation of M & A - Valuation of equity and debt – Primary and secondary market analysis - Assessing market value of equity with book value and index, P/B analysis, Price earnings ratio – PEG analysis – F Score – Risk and return of equity – Dividend pattern analysis.

UNIT 5: Financial reporting

12

Financial reporting –Concepts – users, Objectives of financial reporting – Qualitative characteristics of information in financial reporting – basic problems of disclosure – Role of SEBI in IFRS – Statutory disclosures in IFRS – Corporate reporting practices in India- Challenges in financial reporting

Total – 60 hours

REFERENCES

- M Y Khan and P H Jain, “ Management accounting, McGraw hill, 5th edition
- Palepu Healy and Bernard, : Business analysis & valuation, South western college publication, 2nd edition
- Raghu Palat, “ Fundamental analysis for investors” ,

16CMBN14

ORGANIZATIONAL BEHAVIOR

3 0 0 3

Course Objective:

- To introduce students to theories and concepts of organizational behavior, increase knowledge and understanding of organizational behavior terminology and main concepts.
- To develop students’ skills in organizational behavior analysis, by providing practice in assessing organizational behavior problems.
- To acquaint the student with the determinants of intra -individual, inter-personnel and inter group behavior in organizational setting and to equip them with behavioral skills in managing people at work.

Course Outcome:

CO – 1: To define organization and classify the contributing disciplines, approaches to OB.

CO – 2: To clearly understand challenges and opportunities for OB.

CO –3: To acquire knowledge in applying motivational theories to resolve problems of employee absenteeism, turnover, stress, job satisfaction, job performance and organizational commitment.

CO – 4: To acquire abilities and in identifying why effective communication systems are particularly important in a pluralistic, multicultural workforce).

CO – 5: To analyses the behaviour of individuals and groups in organization’s in terms of the key factors that influence organizational behaviour.

CO – 6: To have a better comprehend of how organizations function, how individuals behave within organizations and how to manage interactions in the workplace.

CO – 7: To obtain knowledge on organizational factors affecting teams, recognize organizational cultures in which groups function).

CO –8: To assess the potential effects of organisational-level factors (such as Power, politics. Organisational culture, climate, change and organizational development on organizational behavior.

CO –9: To discover how transactional analysis can help people manage complex organizations.

CO –10: To develop skills in handling stress and also identify the different form of stress).

UNIT I INTRODUCTION 12

Introduction to Organizational Behaviour – Meaning- Definitions- Contributing disciplines to OB. Approaches to OB. OB model. Challenges and opportunities for OB. Personality and its types and traits. Learning – classical conditioning, operant conditioning, Social Learning.

Unit II FOUNDATIONS OF INDIVIDUAL BEHAVIOUR 12

Attitude- Values – Job satisfaction. Perception - making judgment about other. Emotional intelligence, Ethics and decision making. Organisational Citizenship Behaviour.

Unit III FOUNDATIONS OF GROUP BEHAVIOUR 12

Motivation- concepts, early theories, contemporary theories, motivation concepts to application. Leadership – concepts, theories – finding and creating effective leaders.

Unit IV GROUP DYNAMICS 12

Defining and classifying groups – stages of group –group decision making. Teams – creating effective teams – managing work teams. Communicating to teams.

Unit V UNDERSTANDING ORGANISATION SYSTEM 12

Power – politics. Organisational culture – organisational climate – organisational change – organisational development. Stress management -Conflict management - Transactional Analysis

Total: 45 Hours

Text Books:

1. Robbins, Judge & Vohra, 14th Edition, Organisational Behaviour, Pearson/PHI, 2012
2. Aswathappa, K., Organisation Behaviour, Himalaya Publishing House, New Delhi, 2006

References:

1. UdaiPareek , Understanding OrganisationalBehaviour, Oxford University Press,2004
2. LaurieJMullins, Management & Organizational Behavior, 7ed. Pearson Education, 2006.
3. Curtis W. Cook and Phillip L. Hunsaker, Management and OrganisationalBehaviour, McGraw-Hill Irwin Publication, 2006.
4. Robin Finchem and Peter Rhodes, Principles of OrganisationalBehaviour, Oxford University Press., 2006.
5. Luthans, Fred, Organizational Behaviour, McGraw-Hill, New York,2005

16CMBN15**ACCOUNTING FOR MANAGERS****3 1 0 4****Course Objective:**

- To make the learners familiar with various basic financial costing concepts.
- This course aims to convey sufficient knowledge for an adequate interpretation, analysis and use the information provided by financial accounting.

Course Outcome:

CO – 1: To be well versed with accounting concepts

CO – 2: To know about the different capital budgeting techniques for decision making purposes in accounting.

CO – 3: To analyze the different elements in a cost sheet.

CO – 4: To gain knowledge on different kinds of budgets and its preparation.

CO – 5: To clearly understand the ratio analysis techniques.

CO – 6: To gain knowledge on financial and operating leverages.

CO – 7:To be well versed in double entry system of accounting.

CO – 8: To gain a wide knowledge on various financial statement analyses.

CO – 9:To have diverse knowledge on working capital concepts.

CO – 10: to analyze on different capital budgeting decisions.

UNIT I INTRODUCTION 12

Introduction to Accounting – Classification of accounting – Accounting concepts and conventions – Balance sheet and profit and loss account concepts – Accounting cycle- Financial statement analysis – Comparative balance sheet and profit & loss A/c & , common size balance sheet and profit & loss A/c and Trend analysis. (No final accounts preparation)

UNIT II RATIO ANALYSIS 12

Ratio analysis –Fund flow statement – preparation, merits and demerits - Cash flow statements – preparation, merits and demerits.

UNIT III CAPITAL BUDGETING 12

Capital budgeting – meaning –steps – different types of investment decisions - Different methods – Payback, Net Present Value, Internal rate of return, Profitability index, Average rate of return – Capital rationing

UNIT IV COST ACCOUNTING 12

Cost accounting – Elements of costs, preparation of cost sheet – Standard costing and Variance analysis –material variance and labour variance

UNIT V BUDGETS 12

Budgeting – Different types of budgeting – Cash budget – Flexible budget- Marginal costing – Cost Volume Profit analysis – Break Even analysis – Applications of marginal costing

Case Study:

Financial statement analysis

Break Even Analysis

Fund Flow statement

Ratio analysis

Capital budgeting problems 14

Total – 60 Hours

Text Books:

1. R.S.N.Pillai&Bagavathi – Management Accounting, S.Chand& Co. Ltd., New Delhi, 6TH edition 2002.

2. T.S.Reddy&Y.Hari Prasad Reddy – Financial and Management Accounting, Margham publications, 12TH edition 2004.

References:

1. M.Y.Khan&P.K.Jain – Management Accounting, Tata McGraw Hill publishing company Ltd., 10th edition 2004.
2. R.Narayanawamy – Financial accounting – A Managerial Perspective, Prentice Hall India Ltd., New Delhi 5th edition, 2014.
3. Paresh Shah Basic Financial Accounting for Management, Oxford Publications, 3rd edition, 2007

16CMBN16

RESEARCH METHODOLOGY

3 0 0 3

Course Objective:

- The objective of this course is to develop a research orientation among the students and to acquaint them with fundamentals of research methods.
- To have knowledge about research and how research is conducted.
- The data collection methods the sampling methods and the data analysis are introduced to do research objectively and systematically.
- To create awareness about the importance of research in all fields.

Course Outcome:

CO-1: To obtain knowledge on various kinds of research questions and research design

CO-2: To understand qualitative, quantitative and mixed methods research, as well as relevant ethical and philosophical consideration

CO-3: To design a good quantitative purpose statement and good quantitative research questions and hypotheses

CO-4: To familiar with good practices in conducting a qualitative interview and observation.

CO-5: To understand how to distinguish between a population and a sample and to determine the sample size

CO-6: To know the various types of quantitative sampling techniques and conditions to use.

CO-7: To understand the various steps involved in coding qualitative data.

CO-8: To get practical exposure on application of various statistical tools to test the hypothesis & drawing inferences

CO-9: To obtain knowledge on writing different types of report

CO-10: To develop independent thinking for critically analysing research reports.

UNIT I INTRODUCTION 12

Introduction to Research – Business & Management Research – Research Characteristics – Research Approaches – Types of Research – Research as Process and Strategy – Applied & Basic Research Process – Problem Identification - Theoretical Framework/'Literature Survey – Scope and Course Objectives : – Research Design – Hypothesis Development – Hypothesis Testing – Exploratory Descriptive Studies – Cross Sectional & longitudinal studies.

UNIT II DATA COLLECTION 12

Data – Methods of data collection – Questionnaire design, interview, scheduling, and e-questionnaire design, guidelines for information collection questionnaire convention and pre-testing, panel research, major qualitative research techniques, scaling techniques – nominal, ordinal, ratio, interval scales.

UNIT III SAMPLING 12

Sampling techniques, probability and non-probability sampling – sample size determination for survey research, confidence in determining sample size – Hypothesis testing, procedures for pilot study – sampling error – sampling techniques for marketing – HR and other management areas.

UNIT IV DATA ANALYSIS 12

Data Analysis – Editing and coding of data univariate, bivariate and multivariate analysis chi square test – correlation and regression analysis – ANOVA – elementary concepts of factor and cluster analysis –use of MS excel, SPSS in data analysis

UNIT V REPORT 12

Introduction - Purpose of a Written Report – Basics of a Written Report – Types – Important Parts – Title, Table of Contents – Synopsis, bibliography - Introductory Section – Research Design - Result Section – Recommendation & Implementation Section.

Total – 60 Hours

Text Book:

1. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods, 11th Edition, Tata McGraw Hill, New Delhi, 2012.

References:

1. Alan Bryman and Emma Bell, Business Research methods, 3rd Edition, Oxford University Press, New Delhi, 2011.
2. Uma Sekaran and Roger Bougie, Research methods for Business, 5th Edition, Wiley India, New Delhi, 2012.
3. William G Zikmund, Barry J Babin, Jon C.Carr, AtanuAdhikari,Mitch Griffin, Business Research methods, A South Asian Perspective, 8th Edition, Cengage Learning, New Delhi, 2012.

16CMBN17 BUSINESS COMMUNICATION & SOFT SKILLS**3 0 0 3****Course Objective:**

- This course is designed to develop business communication skills of students by improving their speaking, listening and writing skills.
- The course is activity oriented and provides exposure to real world communication by presenting various real world business communication challenges in class-room structure

Course Outcome:

- CO1 - To understand the basics of communication and its process, elements and importance.
- CO2 – To learn the various barriers in the communication.
- CO3 – To learn the listening skills and the characteristics of good and poor listeners
- CO4 – To know the various types of listening, its approaches and barriers.
- CO5 - To know the effectiveness of oral communication and its application in group Presentation.
- CO6 – To develop the presentation skills and learning to organize and structuring a Presentation using visual aids
- CO7 – To Know the importance, techniques & types of reading and its factors.
- CO8 – To learn the skills of writing business correspondence, various qualities and parts.
- CO9 – To learn the art of report preparation and writing various types of letters.
- C10 – To know the various types of Non – Verbal skills and its application for effective Communication.

UNIT V BUSINESS CORRESPONDENCE

12

Through emails, Pleasant and Unpleasant Letters, Pleasant Letters and Unpleasant Letters, Understanding the Audience, Factors that Help in Understanding the Audience, Organizing the Message, Writing Pleasant Letters, Writing Unpleasant Letters, Persuasive Letters and Memos, Persuasive Letters, Understanding the Product, Customer and Purpose, Organizing the Message, Different Types of Persuasive Letters, Memos, Reports, Elements of a Report, Writing a Report, Using Graphics to Manage Data, Types of Visual Aids, Selection of Visual Aids, Non-verbal Communication, Characteristics of Nonverbal Communication, Conventional and Nonconventional Nonverbal Communication, Conventional Nonverbal Communication, Nonconventional Nonverbal Communication, Dress, Interaction of Verbal and Nonverbal Communication, Language Skills for Effective Communication.

Total – 60 Hours

Text books:

1. Sharan J. Genrson and Steven M. Gerson – “Technical Writing – Process and Product” – Pearson Education – 2000.
2. Raymond V. Lesikar, John D. Pettit and Mary E.Flatley – Lesikass Basic Communication Tata McGraw Will 8th Edition – 1999.
3. Stevel. E. Pauley, Daniel G. Riordan – Technical Report Writing Today – AITBS Publishing & Distributors, India 5th edition – 2000.
4. Robert L. Shurter, Effective letters in business Thrid Ed. 1983.

References:

1. Francis Soundararaj, “Speaking and Writing for Effective Business Communication, MacMillan Publication, 2009.
2. Madhukar, “Business Communication”, Vikas Publishing House, 2009
3. UrmilaRai, “Business Communication”, Himalaya Publishing house, 2008
4. McGraith – Basic Managerial Skills for all Prentice Hall of India – 6th Edition 2002.

Course outcomes:

- Co-1:** To understand the basic concepts and applications of Database management
- Co-2:** To define the terminology, features, classifications, and characteristics embodied in database systems.
- Co-3:** To analyze an information storage problem and derive information model expressed in the form of an entity relation diagram and other optional analysis forms, such as a data dictionary.
- Co-4:** To learn the basics of SQL and construct queries using SQL.
- Co-5:** To understand the query evaluation techniques and query optimization
- Co-6:** To design and develop the database application systems
- Co-7:** To be familiar with basic database storage structures and access techniques.
- Co-8:** To demonstrate an understanding of the relational data model.
- Co-9:** To formulate using SQL solutions to a broad range of query and data update problems.
- Co-10:** To use an SQL interface of a multi-user relational DBMS package to create, secure, populate, maintain, and query a database.

LIST OF EXPERIMENTS

1. DDL and DML Commands.
2. Join Queries.
3. Views and Set operations.
4. Built in functions.
5. Nested Queries.
6. Triggers.
7. Aggregate Functions.
8. Roles and Privileges.
9. Cursors.
10. PL/SQL programs.
11. PL/SQL cursor programs.
12. Front end tools – Mini Project.

SEMESTER II

16CMBN21

APPLIED OPERATIONS RESEARCH

3 1 0 4

Course Objective:

- The Objectives of the course is to acquaint the student with the applications of Operations Research to business and industry and help them to grasp the significance of analytical techniques in decision making.
- Students will be tested on the application of Operations Research to business related problems.

Course Outcomes:

CO-1: Apply research techniques in quantitative and qualitative aspects.

CO-2: Schedule the projects and find the early ways of finishing it.

CO-3: Develop simulation models.

CO-4: Minimize the resource allocation for project.

CO-5: Maximize the productivity with help of least cost techniques.

CO-6: Minimize the waiting hours of simultaneous projects undertaken.

CO-7: Sequence and priorities the daily activities of a project.

CO-8: Build the best fit route of transportation for carrying schedule of activities.

CO-9: Graphically locate the optimum peak point in completing the project.

CO-10: Apply the operations techniques in reality to market scenario

UNIT I INTRODUCTION

12

Origin, Nature, Definition, Managerial applications & Limitations of OR. Linear programming – Formulation - Graphical & Simplex Method.

Unit II TRANSPORTATION MODEL

12

Transportation Model - Initial Solution - NW Corner Rule, Least Cost Method, Vogel's Approximation method - Assignment Problem - Sequencing Problem

Unit III ANALYSIS

12

PERT & CPM – Project scheduling by PERT/CPM – Cost considerations in PERT/CPM.

Unit IV THEORY & PRACTICE**12**

Replacement – Game Theory – Pure & Mixed Strategy – Graphical Method – Dominance Property.

Unit V QUEUING THEORY**12**

Queuing Theory – Models – Simple Problem – Introduction to simulation

Case study: Unit II – Optimum Solution in Transportation and Assignment problem

Total – 60 Hours**Text Books:**

1. Singh &Kumar,"OperationResearch"UDH Publisher,2013
2. Kothari,"QuantitativeTechniques"Vikas, 3rd Ed,2006
3. TahaHamdy," Operation Research -An Introduction", Prentice-Hall, 2010

References:

1. S.R. Yadav, A.K. Malik,"Operations Research" Oxford University Press; First edition,2014
2. J.K.Sharma," Operations Research THEORY AND APPLICATION" Macmillan Publishers,4th Ed,2009 .
3. G.V.Shenoy,U.K.Srivastava,S.C.Sharma,"Operations Research for Management"New Age International,Revised 2nd Ed,2005

16CMBN22 ECONOMETRICS 3 1 0 4

Course Objective: To understand the importance of econometrics with statistical concepts, regression analysis, time series and forecasting

Course Outcome:

Co-1:An integration of economics with statistics and mathematics for the purpose of framing economic policies, empirical studies and building economic models for economic development and growth as well as to provide solutions for major economic problems such as business crises, inflation, deflation etc.,

Co-2:To understand the basis of econometrics

Co-3:To know the anatomy of basic econometric models

Co-4:To understand the role of econometrics in policy framing

Co-5: To construct econometric models for estimating future sales

Co-6: To prepare case study using econometric methodology in order to evaluate Government policies

Co-7: To understand the basis of probability and statistics

Co-8: To know how to construct ANOVA table

Co-9: To conduct research surveys through multiple regression and multiple correlation

Co-10: Proving the relevance of the estimator through econometric models – OLS and BLUE

INTRODUCTION

12

Historical perspective of Econometrics – Econometrics – Importance of Econometrics – Types of Econometrics – Methodology of Econometrics

BASIC STATISTICAL CONCEPT

12

Probability – Hypothesis Testing – Univariate Statistics – Bivariate Statistics – Analysis of Variance – Correlation

REGRESSION ANALYSIS

12

Historical origin of the term regression – The modern interpretation of regression – Statistical versus deterministic relationships – Regression versus causation – Regression versus correlation – Two Variables Regression analysis

TIME SERIES

12

Basics of Time Series Box – Jenkins Methods – Error Measurements – Univariate Time Series Modelling.

ECONOMETRIC FORECASTING

12

Forecasting with moving averages, linear trend, exponential trend – Forecasting with linear regression – Classical time series decomposition – Measures of forecast performance: Mean square error and root mean square error

Total:60 hours

TEXT BOOKS:

1. Gujarati D & Porter D. Basic Econometrics 5th edition, McGraw-Hill Education, India, 2008

REFERENCE BOOKS:

1. Gujarati D. Econometrics By Example Indian, Palgrave Macmillan, India, 2012.
2. Kaur N. & Shyamala A. A text book on Econometrics, Vishal Publishing, India, 2013.
3. Stock J. & Watson M. Introduction to Econometrics, Pearson Education, India, 2015.

Course Objective:

- This course will cover all aspects of creating spreadsheet, performing calculations, formatting, some very widely used formulas.
- It will enable the students to create, build models and customize graphs, develop advanced solutions on the worksheet in the areas of marketing, finance, statistics, production and human resource and to assemble the proper Excel tools.

Course Outcomes:

- CO1 - Understand the basic features of Excel spreadsheet functions.
- CO2 - Analyse and provide optimal solutions for the financial problems related to firms' cash flows, operations, and financial leverage.
- CO3 - Understand the basic features of Spread sheets.
- CO4 - Analyse and assess the fair values of various securities including stocks and bonds
- CO5 - Understand the pricing tools for European and American options, including Black-Scholes option formula and binomial trees.
- C06 - Understand the basic features of the foreign exchange markets and develop basic knowledge in relevant analysis
- CO7 - Create MS Excel based financial models.
- CO8 - Use the advanced tools of Excel.
- CO9 - Record and build Excel Macros for implementing advanced functionalities in Excel.
- CO10 - Carry out financial analysis, forecasting, etc.

UNIT –I INTRODUCTION**12**

Module: Introduction to Spread sheet Modeling–Formulas/Formatting/Printing/Functions
Cellreferences, Lookup tables, Linkingdisparateworkbooks,Dynamiclinking,updatinglinks,data
validation,Goalseek,Pivottable,Sorting,Chartingandfilteringandprotectingspreadsheets.

UNIT – II SPREADSHEETMODELLINGINSALESANDMARKETING**12**

New product decision making–Sales and marketing data analysis.

UNIT – III SPREADSHEET MODELLING IN FINANCE 12

Forecasting financial statements –
capital budgeting decisions, Bond valuation, Stock valuation, Breakeven analysis, Budgeting, Ratio analysis, Sensitivity analysis, Simulation analysis, Portfolio construction and Working capital.

UNIT – IV SPREADSHEET MODELLING IN STATISTICS 12

Measures of central tendency, t test, ANOVA, Correlation, Regression and Time series analysis.

UNIT – V SPREADSHEET MODELLING IN PRODUCTION AND HUMAN RESOURCE 12

AB Analysis, Economic order quantity, Production budget – employee and payroll decision making.

TEXTBOOKS:

Walkenbach, John. Excel Bible. New Delhi: Wiley India Pvt Ltd. 2nd edition, 2010

1. MacDonald, Mathew. Excel: The Missing Manual. Sebastopol: O'reilly. 2nd edition, 2010

REFERENCES:

1. Ragsdale, Cliff. T, Spreadsheet Modelling and Decision Analysis. New York: Thomson south-western publications. 6th edition, 2008
2. Monahan, George E. Management Decision Making: Spread Sheet, Modelling, Analysis. London: Cambridge University. 8th edition, 2000

Course Objective:

- Business Analytics is a set of techniques and processes that can be used to analyze data to improve business performance through fact-based decision-making.
- The objective of this subject is to introduce the Business Intelligence methods that support the decision process in business operations.

UNIT I INTRODUCTION 12

Business Intelligence: definition, concept and need for Business Intelligence, Case studies BI Basics: Data, information and knowledge, Role of Mathematical models

UNIT II ANALYTICS STRATEGY 12

Business Analytics at the strategic level: Strategy and BA, Link between strategy and Business Analytics, BA supporting strategy at functional level, dialogue between strategy and BA functions, information as strategic resource.

UNIT III DATA MINING 12

Business Analytics at Analytical level : Statistical data mining, descriptive Statistical methods, lists, reports, automated reports, hypothesis driven methods, data mining with target variables, cluster analysis, Discriminate analysis, logistic regression, principal component analysis.

UNIT IV DATA WAREHOUSING 12

Business Analytics at Data Warehouse Level, Designing physical database, Deploying and supporting DW/BI system

UNIT V BUSINESS INTELLIGENCE 12

Business Intelligence Architectures: Cycle of Business Intelligence Analysis, Development of Business Intelligence System, spread sheets, concept of dashboard, CLAP, SQA, decision

engineering. BI Tools: Concept of dashboard. BI Applications in different domains- CRM, HR, Production

Total: 60 Hours

Text Book:

1. Turban, Sharda, Decision Support and Business Intelligence Systems, Delen, Pearson, 9th Edition, 2014

References:

1. Olivia Parr Rud, Business Intelligence Success Factors Tools for aligning your business in the global economy, John Wiley and Sons, 2009
2. Steve Williams and Nancy Williams, The Profit impact of Business Intelligence, Morgan Kaufman Publishers! Elsevier, 2007
3. Gert H.N. Laursen, Jesper Thorlund, Business Analytics for Managers: Taking Business Intelligence beyond reporting, Wiley and SAS Business Series. 2010

Course Objective:

- The objective of this course is to understand the concept and principles of the Project Management.
- The course is to understand the tools and technique for identification, analysis and implementation of Project Management.

Course Outcomes

- To understand the business case for a project, the scope and constraints involved in a specific opportunity.
- To be able to function in a project management environment successfully.
- To be able to apply your skills immediately to the efficiency of the business operation.
- To describe a project life cycle and skillfully map each stage in the cycle
- To identify the resources needed for each stage, including involved stakeholders, tools and supplementary materials
- To describe the time needed to successfully complete a project, considering factors such as task dependencies and task lengths
- To provide internal stakeholders with information regarding project costs by considering factors such as estimated cost, variances and profits.

UNIT I PROJECT MANAGEMENT**12**

Introduction – ProjectManagement: An Overview – Types, Characteristics of Projects – Project life cycle – Project Management Process – Project Parameters: Cost, Time, Quality – Scheduling.

UNIT II PROJECT IDENTIFICATION & FORMULATION**12**

Identification of investment opportunities – Selection – Project Planning – Project charter – Scope Management – Work Breakdown Structure (WBS)

UNIT III FINANCIAL ANALYSIS & APPRAISAL**12**

Financial analysis – cash flows for project appraisal- Investment evaluation using capital budgeting techniques - net present value, profitability index internal rate of return, payback period, accounting rate of return – Cost Management

UNIT IV ANALYSIS**12**

Network technique for Project Management – CPM, PERT – Risk Management – Nature of Risk – Types of Risk – Managing Risk – Hazard Identification – Hazard Analysis – Risk Planning and Control – FMEA.

UNIT V IMPLEMENTATION, MONITORING & CONTROL 12

Organization systems for project implementation – Coordination and Control – Project Management Software.

Total – 60 Hours**Text Books:**

1. S. Choudry “Project Management”, Tata McGraw Hill, 27th edition, 2006.
2. Prasanna Chandra, “Projects – Planning, Analysis, Financing, Implementation and Review”, Tata McGraw Hill, 4th Ed, 1997.
3. Narendra Singh, “Project Management and Control”, Himalaya publication, Mumbai, 1998.

References:

1. Mike Field and Laurie Keller, “Project Management”, Thompson Business press, 2002
2. Gido and Clements, “Successful project management”, 2nd edition; Thompson southwestern, 2003
3. John M Nicholas, “Project Management for business and technology”, 2nd edition, Pearson Education Asia, 2001
4. Bhavesh M Patel, “Project Management – Strategic financial planning, Evaluation and control”, Vikas publishing house, 2000.

Course Objective:

- This course helps to know how to derive meaning from huge volume of data and information. Understand and interpret a business objective, and translate the business objective to business intelligence and data mining objectives.
- Identify possible risks and limitations of a data set in achieving business objectives.
- Apply the appropriate business intelligence and data mining techniques to match a business objective. Present results to stakeholders in terms of the business objectives set, and how the information learned can be used to add value to the business.
- Work through all stages of a data mining methodology.

Course Outcome:

Co 1: Design and implement OLTP, OLAP and Warehouse concepts.

Co 2: Design and develop Data Warehouse using Various Schemas & Dimensional modelling.

Co 3: Use the ETL concepts, tools and techniques to perform

Co 4: Extraction, Transformation, and Loading of data.

Co 5: Report the usable data by using various reporting concepts, techniques/tools, and use charts, tables for reporting in BI.

Co 6: Use Analytics concepts like data mining, Exploratory and statistical techniques for predictive analysis in Business Intelligence.

Co 7: To present survey on different learning, classification and data mining foundations.

Co 8: To solve problems for multi-core or distributed, concurrent/Parallel environments.

Unit – I INTRODUCTION**12**

Data mining, Text mining, Web mining, Spatial mining, Process mining, BI process- Private and Public intelligence, Strategic assessment of implementing

Unit - II DATA WAREHOUSING**12**

Data ware house – characteristics and view - OLTP and OLAP - Design and development of data warehouse, Meta data models, Extract/ Transform / Load (ETL) design

**Unit –III DATA MINING TOOLS, METHODS AND
TECHNIQUES 12**

Regression and correlation; Classification- Decision trees; clustering –Neural networks; Market basket analysis- Association rules-Genetic algorithms and link analysis, Support Vector Machine, Ant Colony Optimization

**Unit - IV MODERN INFORMATION TECHNOLOGY &
ITS BUSINESS OPPORTUNITIES 12**

Business intelligence software, BI on web, Ethical and legal limits, Industrial espionage, modern techniques of crypto analysis, managing and organizing for an effective BI Team

Unit – V BI AND DATA MINING APPLICATIONS 12

Applications in various sectors – Retailing, CRM, Banking, Stock Pricing, Production, Crime, Genetics, Medical, Pharmaceutical

TOTAL – 60 Hours

TEXT BOOKS:

1. Jaiwei Ham and MichelineKamber, Data Mining concepts and techniques, Kauffmann Publishers 2006
2. Efraim Turban, Ramesh Sharda, Jay E. Aronson and David King, Business Intelligence, Prentice Hall, 2008.

16IMBN21 - INTERNSHIP – VIVA VOCE

Course Outcome:

- CO – 1: To contribute to organizations of all types and sizes by managing critical short-term projects.
- CO – 2: To provide creative solutions to key challenges.
- CO –3: To design marketing strategies.
- CO – 4: To leverage business analytics with key strategic decision makers.
- CO – 5: To lay the foundation for strong relationships and subsequent job offers.
- CO – 6: To provide a variety of ways to engage in experiential learning.
- CO – 7: To apply the knowledge and skills acquired in the classroom to a professional context.
- CO – 8: To understand what skills are transferable to new contexts.
- CO – 9: To successfully reflect on the quality of the contribution interns have made to the organization.
- CO – 10: To refine and reassess interns’ own career goals as a result of the experience.

SEMESTER - III

16CMBN31 APPLIED BUSINESS ANALYTICS 4 0 0 3

Course Objective: The course is to understand the management and administration, functions of management, formal and informal organization, staffing, creativity and innovation, process of communication.

Course Outcomes

- CO -1: Design, device, and query relational databases for operative data.
- CO - 2: Design, implement, populate and query data warehouses for informational data .
- CO - 3: To integrate very large data sets to make business decisions.
- CO - 4:Evaluate the use of data from acquisition through cleansing, warehousing, analytics, and visualization to the ultimate business decision.
- CO - 5:Evaluate the key concepts of business analytics.
- CO - 6:Determine when to implement relational versus document oriented database structures.

CO -7:Outline the relationship of the business analytics process within the organisation's decision-making process.

CO - 8:Examine and apply appropriate business analytic techniques and methods.

CO - 9:Execute real-time analytical methods on streaming datasets to react quickly to customer needs.

CO -10:To critically analyse the predictive analysis methods.

Unit I

Introduction to Descriptive analytics, Descriptive Statistics, Probability Distributions, Inferential Statistics through hypothesis tests, Permutation & Randomization Test

Unit II

Regression, ANOVA (Analysis of Variance), Machine Learning Introduction and Concepts- Differentiating algorithmic and model based frameworks, Regression: Ordinary Least Squares, Ridge Regression, Lasso Regression, K Nearest Neighbours, Regression & Classification

Unit III

Supervised Learning with Regression and Classification techniques- Bias-Variance Dichotomy, Model Validation Approaches, Logistic Regression, Linear Discriminant Analysis, Quadratic Discriminant Analysis, Regression and Classification Trees, Support Vector Machines, Ensemble Methods: Random Forest, Neural Networks, Deep learning

Unit IV

Unsupervised Learning and Challenges for Big Data Analytics- Clustering, Associative Rule Mining, Challenges for big data analytics,

Unit V

Prescriptive analytics Creating data for analytics through designed experiments, creating data for analytics through Active learning, creating data for analytics through Reinforcement learning, Graph Visualization, Data Summaries, Model Checking & Comparison

References:

1. Hastie, Trevor, et al. The elements of statistical learning.Vol.2.No. 1. New York: springer, 2009.

2. Montgomery, Douglas C., and George C. Runger. Applied statistics and probability for engineers. John Wiley & Sons, 2010
3. Bekkerman et al. Scaling up Machine Learning
4. Tom White “Hadoop: The Definitive Guide” Third Edition, O’reilly Media, 2012.
5. AnandRajaraman and Jeffrey David Ullman, “Mining of Massive Datasets”, Cambridge University Press, 2012.
6. Vincent Granville, Developing Analytic Talent: Becoming a Data Scientist, wiley, 2014.
7. Jeffrey Stanton & Robert De Graaf, Introduction To Data Science, Version 2.0, 2013.

Discipline Specific Elective (DSE)

16DMBN34

SAP FICO

4 0 0 3

COURSE OBJECTIVES:

- Latest software tools for managing financial activities in the organizations.
- To improve the financial processes in your company thereby increasing value-addition.
- About methods and techniques for smooth financial accounting and controlling functions.
- To track and monitor data of different cost and profit centers situated across the globe from one single platform.
- (FI) module provides integrated, on-line, real-time functionality for processing, recording and maintaining the financial accounting transactions of the business for external reporting purposes
- CO Application Module provides integrated functionality for the management and reporting of cost and revenue information used for internal business decision making.

COURSE OUTCOMES:

- **CO1** To learn about SAP – FI CO enterprise structure
- **CO2** To understand Financial Accounting and Global settings
- **CO3** To understand General ledger accounting
- **CO4** Understand asset accounting, cash journal, and closing of operations

- **CO5** Financial Accounting and Controlling is inter-related and helps one to manage a better business process towards better finance accounting and data management.
- **CO6** SAP FICO module towards better management of finance accounting and reporting in enterprises.
- **CO7** To integrate different modules of ERP for bringing financial automation by getting complete information on Accounts Receivable, Accounts Payable, General Ledger, Tax, etc.
- **CO8** To integrate FICO module with other ERP modules including, FI-MM, FI-SD, FI-HR
- **CO9** SAP FICO is the important module of ERP and both FI &CO modules stores the financial transactions data.
- **CO10** To gain knowledge on aspects such as Financial Statements for external reporting

Unit I

General Ledger Accounting, General Ledger Master, General Ledger Postings, General Ledger Parking and postings, Reversals, Automatic Clearing, Recurring Entries, Taxes, General Ledger Reports Cash and Bank Accounting, Cash Journals, Cheque Management, House bank Masters, Bank Reconciliations

Unit II

Accounts Payable, Vendor Master, Vendor Invoice Posting, Vendor Credit Memo, Vendor Down Payment, Vendor Down Payment Clearing, Vendor Outgoing payment, Partial payment against an invoice, Residual Payment, Automatic Payment Run, Withholding Tax (TDS), Vendor Reports Accounts Receivable, Customer Master, Customer Invoice Posting, Customer Credit Memo, Customer Down Payment, Customer Down Payment Clearing, Customer Incoming Payment, Partial payment against an invoice, Residual Payment, Customer Reports

Unit III

Asset Accounting, Asset Master, Asset Procurement (Direct), Asset Procurement (through MM), Asset Retirements, Asset Scrapping, Depreciation Run SAP FI Consultant Level: Define a Company, Define a Company Code, Assign Company Code to Company, Define Chart of Accounts, Assign Company Code to Chart of Accounts, Setup Account Groups and their Number Ranges, Assign Fiscal Year Variant to Company Code, Assign Posting Period Variant to Company Code, Document Number Ranges for the Company Code, Assign Field Status

Variant to Company Code, Define Employee Tolerance, Define Retained Earnings Account , Document types, Posting Keys , Validation and substitution, General Ledger Account Introduction, Reconciliation Accounts, Expense and Revenue GL Accounts, Account Assignment Model, Setup tolerance for customers and vendors, Customer Account Groups, Create number ranges for customer accounts, Assign number ranges to customer groups, Customer Master Record, Create Vendor Groups, Create number ranges for vendor accounts, Assign number ranges to vendor groups, Create Vendor Master, Create underpayment account and Over payment accounts, Create cash discount account, Payment within tolerance (incoming), Payment within tolerance (outgoing)

Unit IV

Configure Automatic Payment Program, Financial Statement Version, Cash Journals, House Bank Configuration, Check Management, Manual Bank Reconciliation, Asset Masters, Asset Number Ranges, Depreciation Areas, Asset General Ledger Account Determination, Depreciation Keys, NEW GL and Document Splitting concepts

Unit V

Controlling Area, Maintain Controlling Area, Assignment of Controlling Area, Activate Components/Control Indicators, Number Range, Maintain Versions Master Records, Cost Element, Cost Center, Profit Center Cost Element ,Primary Cost Elements (Manual), Secondary Cost Elements (Manual), Automatic Creation of Primary and Secondary Elements Cost Center Accounting, Define Standard Hierarchy, Create Cost Center, Create Cost Center Group Transaction – Based posting, Number assignment for CO documents, Account assignment logic, Automatic and default account assignment, Transaction-based posting in CO Profit Center Accounting, Define Standard Hierarchy, Create Profit Center, Create Profit Center Group, Define Dummy Profit Center Repost CO Line Items (Using FI Document)

References:

1. Andrew Okungbowa, SAP ERP FICO: Configuration and Use Management, Apress, 2011
2. Narayanan, SAP FI Financial Accounting, 2009
3. BhushanJairamdasMamtani, SAP FICO - Black Book, dreamtech press, 2011

COURSE OBJECTIVES:

- Maintain the key master data in Sales and Distribution, and name and define the required business structures.
- Work with the various documents in Sales and Distribution Describe the points of contact from Sales and Distribution to the materials management, production (for example, make-to-order) and financial accounting areas
- Perform analyses for Sales and Distribution processes
- Integrate sales in the Sales and Distribution process chain Configure Customizing so that it represents your specific sales requirements
- Describe the position of distribution within the supply chain
- Execute the different functions within distribution processing
- Adapt the system to suit your distribution processing requirements

COURSE OUTCOMES:

CO1 Learn about the main business processes in sales processing

CO2 Execute the most important functions in the process chain from the pre sales phase to the incoming payment in the system

CO3 Creation of org structures in Sales area and its corresponding units

CO4 Gain an extensive overview of the sales and distribution areas as part of the SD component in the SAP system

CO5 Obtain a more detailed insight into sales and distribution functions using selected examples

CO6 Build up the knowledge needed to implement these functions and be able to use them

CO7 Acquire knowledge of how to adapt the system using Customizing settings to meet your own specific requirements in sales and distribution

CO8 Hands on material determination and product selection and material Listing and material exclusion

CO9 Hands on free goods process. Condition technique, free goods master data, free goods

Calculation rule

C10 creation and exploring them to complete the process in agreements

Unit I

OVERVIEW OF SD MODULE, Organizational Structure, Reaching IMG, SALES ORGANIZATION SETUP, Creating Sales Organization, Creating Distribution Channel, Creating Division

Unit II

ASSIGNING OF ORGANIZATIONAL UNITS, Assigning Sales Organization with Company code, Assigning Distribution Channel to Sales Organization, Assigning Division to Sales Organization

Unit III

CREATING MASTER DATA, Introduction to Master data, Preparing the system for Master Data Creation - Creating Common Distribution Channel - Creating Common Division, Customer Master Data – Introduction, Creating Customer Master

Unit IV

SALES ORDER CREATION, Definition and Prerequisites, Preparing the system Combining Organization Units, Assigning Sales Document to Sales Area, Sales Order Creation

Unit V

Viewing Header Details, Viewing Item Details, Viewing Schedule Lines

References:

1. Glynn Williams, **Implementing SAP ERP Sales & Distribution**, McGraw Hill Education, 2005
2. Ashok Faujdar, BinniKumariChoudhary, **SAP Sales and Distribution Certification Guide**, McGraw Hill Education, 2009
3. K. A. Samad, **SAP SD for Beginners Vol.1**, Shroff; First edition, 2005

COURSE OBJECTIVES:

- To learn everything working with SAP Purchasing and Material Master, which is an integral part of Warehouse Management.
- To gain a complete understanding of SAP MM and also has acquired the ability to apply these skills and knowledge in a practical manner.
- To gain knowledge on wide range of topics such as consumption-based planning, purchasing, vendor evaluation and invoice verification.
- This course also focuses on inventory, production planning, and warehouse management.

COURSE OUTCOMES:

CO1 To learn about ERP Packages, Functions and Objectives of materials management

CO2 To learn how to create, release and send the request for quotation (RFQ) to selected vendors.

CO3 Company, Company code, Controlling Area, Plant, Storage Location, Purchase Organization, Purchasing group

CO4 Creation of Master Data and Source determination and list.

CO5 To know about document types for purchasing documents.

CO6 To know the release procedure for purchasing documents.

CO7 Pricing Procedure, External Service Management, Inventory Management

CO8 Physical Inventory, Special Stocks and Special Procurement Types, Valuation and Account Determination.

CO9 Offers complete knowledge of Warehouse and Stock Management & Procurement Supply Chain Method implementation using SAP ERP.

C10 Integration Concepts- integration of MM with SD, Stock Transport Order (STO), Intra Company Stock Transfer, Inter Company or Cross Company Stock Transfer, Integration of MM with PP

Unit I

SAP Overview Processes in Procurement, Basics of Procurement Process, Master Data, Procurement of Stock Material, Procurement of Consumable Material, Procurement of External Services, Reporting in MM, Materials Planning, Basics, Planning Run, Lot-Size Calculation, Reorder Point Planning and Planning Evaluation

Unit II

Purchasing Details & Optimization, Introduction to Purchasing Details, Outline Agreements, Source Determination, Optimized Purchasing Inventory Management/ Physical Management, Inventory Management: Overview, Goods Receipts, Reservations and Goods Issues, Stock Transfers and Transfer Postings, Consignment, Subcontracting, Physical Inventory Management, Cycle Counting, Inventory Sampling

Unit III

Valuation and Account Determination, Introduction to Material Valuation, Valuation and Account Assignment, Material Price Changes, Special Inventory Management Features Invoice verification, Introduction to Invoice Verification, Basic Invoice Verification Procedure, Taxes, Cash Discounts, and Foreign Currency

Unit IV

Variances and Blocking Reasons, Invoice Reduction, Variances without Reference to an Item, Invoices for POs with Account Assignment, Delivery Costs, Subsequent Debits/Credits, Credit Memos and Reversals, Invoice Verification in the Background, ERS and Invoicing Plans, Releasing Blocked Invoices, GR/IR Account Maintenance, Conventional Invoice Verification, Customizing for Invoice Verification, Conclusion

Unit V

Classification and related areas in MM, Classification, Document Release (Approval) Procedure, Batch Management ASAP, ASAP Overview, Implementation Roadmap Cross-Functional Customizing, Global Settings, MM Organizational Levels: Business Scenario, Master Data in Materials Management, Purchasing, Pricing, Inventory Management

References:

1. MukeshShukla, **SAP Materials Management**, McGraw Hill Education, 2012, 2nd Edition.
2. Rajesh Vyas, Sap Mm: Complete Reference to Implementation / Customization, Createspace, 2010
3. Martin Murray, SAP MM: Functionality and Technical Configuration, SAP Press; 2nd Revised edition edition, 2008

16DMBN37

SAP HCM

4 0 0 3

COURSE OBJECTIVES

- Understand the business processes of SAP HCM
- Understand and maintain employee data for an enterprise
- Implement infotypes for supporting transaction processing in SAP
- Define time recording processes
- Outline payroll processes
- Execute configurations and processes for organization management
- Implement authorizations and key elements of configuring authentications in HCM module
- Support and manage SAP HCM implementation procedure

COURSE OUTCOMES

CO1 To learn SAP HR sub-modules and its benefits and three tier

CO2 To understand system navigation and implementation road map.

CO3 To understand Organizational management and structure, relationships and infotypes

CO4 To create HR master data, Personnel structure assignment and HR infotypes.

CO5 To understand the different types of HR info type groups

CO6 To learn about customizing user procedures

CO7 To learn about employee sub group, Pay scale type

CO8 To learn about recruitment infotypes, Training and Event Management Posting to Financial Accounting

CO9 To learn about maintaining employee data for business event

C10 To learn about transferring of applicant data to Personnel Administration

Unit I

Introduction ERP & SAP, Overview on SAP HR sub modules, System Landscape – Three tier Architecture, ASAP Methodology, System navigation, Implementation road map

Unit II

Organization Management, Introduction about Organizational Management, Structures in SAPHCM, Objects, Relationships, Creation of Organizational structure Methods, Expert mode, Simple maintenance, Organizational and Staffing, Info types in OM, Plan version, Evaluation path, Reports Personnel Administration:Enterprise structure Assignment, Company, Company code, Personnel area, Personnel sub area, Personnel structure Assignment, Employee group, Employee sub group, Payroll accounting area, Integration settings with OM & PA, HR Master Data, Accounting global settings, Period Parameters, Fiscal year setting, Posting periods, Employee Attributes, Info types in PA, Features, Info type Ranges in HR, Number Ranges for Employee personnel numbers, Reports

Unit III

Customizing user Procedures, Configuration of Personnel Actions – Info group – Action menu, Dynamic Actions, Administration Group, Payroll Area, Control record, Period Parameters, Date Modifiers, Payroll Period, Pay scale structure, Pay scale area, Pay scale type, Pay scale groups & Levels, Employee sub group, Grouping for CAP Time Management: Time Management Info types

Unit IV

Pay scale type, Pay scale groups & Levels, Employee sub group grouping for CAP, Creation of Wage types, Primary wage types, Technical / Secondary wage types, Customer wage types, Indirect evaluation mode, Wage type characteristics, Wage type models, Payments & Deductions, Garnishments, Factoring, Off – Cycle payroll, Posting to Financial Accounting (Symbolic Accounts)

Unit V

Recruitment, Info types, Work force requirement & Advertisement, Applicant Administration, Applicant selection, Applicant data, Transferring of applicant data to Personnel Administration Training & Event Management, Info types, Training & event interdiction, Training requirement, Defining cost of Training, Location for the Training or business event, Business event group, Business event type, Maintaining employee data for business event type Personnel Development,

Planning, Setting up of Qualifications catalog, Setting up of rating scales, Appraisals, Old Appraisals, Appraisal catalog, Appraisal system, Employee Appraisal

References:

1. Ganesh Karthik S, **SAP HCM - A Complete Tutorial**, Packt Publishing Limited, 2014
2. Aggarwal P.K, Sap Hr India Payroll: Technical Reference and Learning Guide, Prentice Hall India Learning Private Limited (2009)
3. KARTHIK S, Sap Hcm- A Complete Tutorial : Deploy And Implement The Diverse Functionalities Of Sap, Packt Enterprise, 2014

16DMBN38

STOCHASTIC MODELLING

4 0 0 3

Course Objective:

1. To learn the basic concepts for modeling the stochastic process. To study the various aspects of stochastic systems modeling and conducting experiments with those models.
2. To understand the appropriate and relevant, fundamental and applied mathematical knowledge, methodologies and modern computational tools.
3. To understand the study of systems evolve randomly over time and to understand the behavior of these systems, especially in long run.

Course Outcomes:

Students will be able

1. To understand the basic probability axioms and rules and the moments of continuous random variables and discrete variables.
2. To derive the probability density functions of transformation of random variables and use these techniques to generate data from various distribution.
3. To understand the discrete time Markov chains and methods of finding the equilibrium probability distributions
4. To understand how to calculate probabilities of absorption and expected hitting times for discrete time Markov chains with absorbing states.
5. To demonstrate the specific applications to Poisson processes

TEXT BOOKS:

1. Mark A. Pinsky and Samuel Karlin An Introduction to Stochastic Modeling, Fourth Edition
4th Edition, Academic Press,2010.

REFERENCE BOOKS:

1. Samuel Karlin and Howard M. Taylor, An Introduction to Stochastic Modeling, Third
Edition 3rd Edition, Academic Press, 1998.
2. Paul Gerhard Hoel, Sidney C. Port, Charles J. Stone, Introduction to Stochastic Processes,
Waveland Pr Inc,1986.

Course Objective:

1. To study and develop the concepts, techniques, tools for modeling and simulation models.
2. To study the various aspects of discrete and stochastic systems modeling and conducting the experiments with the simulation models.
3. To understand the concept in modeling and simulation

Course outcomes:

Students will be able :

1. To define basic concepts in modeling and simulation
2. To understand the basic probability axioms and rules and the moments of continuous random variables and discrete variables.
3. To generate and test random number variates and apply them to develop simulation models.
4. To classify models and understand the methodology of model building.
5. To understand the different methods of random number generation.
6. To have a clear understanding of principle and techniques for generating random numbers.
7. To construct a model for a given set of data and motivate its validity
8. To analyze output data produced by a model and test validity of the model.
9. To classify various simulation models and give practical examples for each category
10. To verify and validate the simulation models

UNIT I INTRODUCTION**12**

Introduction to simulation – Discrete and Continuous simulation – Simulation models – Types of Models – Steps in Simulation study.

UNIT II RANDOM NUMBERS**12**

Properties of Random Numbers – Generation of Random number – Testing for Random numbers – Techniques for generating Random Numbers – Random Variate Generation.

UNIT III ANALYSIS: INPUT AND OUPUT MODELING**12**

Input modeling – Data collection – Identifying the distribution with data – Parameter estimation – Goodness of fit tests – Output analysis for a Single model.

UNIT IV ANALYSIS: VERIFICATION AND VALIDATION**12**

Model Building – Verification of Simulation Models – Validation of Simulation Models.

UNIT V LANGUAGES AND APPLICATIONS**12**

Simulation Languages and Simulators – Simulation of Queuing system – Simulation of Inventory system – Simulation of Manufacturing.

Total: 60 hours**TEXT BOOKS:**

1. Banks, J., Carson, J. S. and Nelson, B. L. , Discrete Event System Simulation, 4th edition, Pearson Education Asia, 2006.

REFERENCE BOOKS:

1. Averill, M. L. and David, W. K., Simulation Modeling and Analysis, 3rd Edition, McGraw Hill, 2000.
2. David W. K., Sadowski, R. P. and Sasowski, D. A., Simulation with ARENA, McGraw Hill, 2002.
3. Gordon, G., Systems Simulation, Prentice Hall, 2002.

Course Objective:

- To understand how big data principles implemented in healthcare
- To understand the data processing for healthcare analytics
- To describe the management principles for implementation of analytics in the healthcare industry
- To understand the statistical principles for healthcare industry

Course outcome:

CO – 1: To gain knowledge on the concepts of health care management.

CO – 2: To understand the implementation of analytics for health care.

CO – 3: To understand the types of data analytics.

CO – 4: To understand the data structures for healthcare.

CO – 5: To gain knowledge on the concepts of Health Care Management.

CO – 6: To understand the Training & Education in health care industry.

CO – 7: To understand the Attitude among Hospital Service Providers.

CO – 8: To understand the Motivation among Hospital Service Providers.

CO – 9: To gain knowledge on the statistical concepts for healthcare data scientists.

CO – 10: To estimate the data using the various statistical tools.

UNIT 1: Introduction and Strategic Importance of fostering a data-driven culture in**healthcare organizations****12**

Introduction – Health Care Management – Evolution of Health Care Systems in India & Abroad
- – Evolution of Present Health Care Services in India - Business value of data to a healthcare organization- -Data governance and what it means to a healthcare organization-Importance of fostering a data-driven culture in a healthcare organization - skill sets should a data analytics team must have.

UNIT 2:Health data processing and reporting techniques**12**

The Data Life Cycle- Healthcare data sources and data structures- Types of data analytics techniques and their strengths and weaknesses - Measuring quality and safety of caring and Developing Key Performance Indicators.

UNIT 3: Health care management **12**

Introduction to Health Care Management- Importance-Features-Success in Team Work in Health care management– In-service Training & Education in health care industry- recent trends in health care industry.

UNIT4: Attitude and Motivation among Hospital service providers **12**

Development of Attitude & Motivation among Hospital Service Providers – Awareness of Health Insurance – Role of Hospital Administrator.

UNIT 5: Health data summary and visualization techniques **12**

Statistics – the basics all healthcare data scientists should know-Data summary techniques (for measurement and categorical data)-Visualization techniques (for measurement and categorical data)-Interactive visualization techniques-Common misuses of data visualization- Techniques for Statistical Inference – the 95% Confidence Interval- General principles involving test of statistical significance – Null Hypothesis, p-value and interpreting test outcomes.

Total – 60 Hours

Text Books:

1. S.L. Goel, Healthcare Management and Administration, Deep & Deep Publications Pvt. Ltd. New Delhi, 7th edition, 2007.
2. Srinivasan, A.V. (ed.), Managing a Modern Hospital, Chapter 12, Response Books, New Delhi, 6th edition, 2000.

Reference Books:

Sharon B. Buchbinder , Nancy H. Shanks, Introduction To Health Care Management , Malloy Incorporation, 2nd edition, 2012.

Course Objective:

- To understand how big data principles implemented in Social media & Web
- To understand the data processing for Social media & Web analytics
- To describe the different metrics for Social media & Web analytics
- To understand the application for Social media & Web analytics

Course outcome:

CO – 1: To recognize on the fundamental concepts of Social media.

CO – 2: To recognize on the fundamental concepts of Web.

CO – 3: To understand the implementation framework of web analytics.

CO – 4: To explain the experimental methods in web data analytics.

CO – 5: To recognize the types of data for Social media & Web analytics.

CO – 6: To design the experiments for Social media & Web analytics.

CO – 7: To identify the different metrics for Social media & Web analytics.

CO – 8: To select the appropriate metrics for Social media & Web analytics.

CO – 9: To investigate the various tools for Social media analytics.

CO – 10: To estimate the data using the Web analytical tools.

UNIT I :**12**

Introduction, History of Social media- Basics of Social Media and Business Models- Basics of Web Search Engines and Digital Advertising. Web & social media (websites, web apps , mobile apps & social media) .

UNIT II :**12**

Web analytics- Web analytics 2.0 framework (clickstream, multiple outcomes analysis, experimentation and testing, voice of customer, competitive intelligence, Insights) - Experimental methods in web data analytics - Air France Internet Marketing Case Study - Econometric modeling of search engine ads

UNIT III:**12**

Data (Structured data, unstructured data, metadata, Big Data and Linked Data) - Lab testing and experiment design (selecting participants, within-subjects or between subjects study,

counterbalancing, independent and dependent variable; A/B testing, multivariate testing, controlled experiments)

UNIT IV:

12

Web metrics and web analytics - PULSE metrics (Page views, Uptime, Latency, Seven-day active users) on business and technical issues; -HEART metrics (Happiness, Engagement, Adoption, Retention, and Task success) on user behaviour issues; -On-site web analytics, off-site web analytics, the goal-signal-metric process

UNIT V:

12

. Social media analytics - Social media analytics (what and why) - Social media KPIs (reach and engagement) - Performing social media analytics (business goal, KPIs, data gathering, analysis, measure and feedback) 6. Data analysis language and tools

Cases and examples - User experience measurement cases - Web analytics cases 8. Group work and hands on practice - Usability study planning and testing; and data analysis using software tools (Google Analytics, Google Sites, R and Deducer)

Total – 60 hours

TEXT BOOKS ;

1. AvinashKaushik, Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity, John Wiley & Sons; Pap/Cdr edition (27 Oct 2009)
2. Tom Tullis, Bill Albert, Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics, Morgan Kaufmann; 1 edition (28 April 2008) .

REFERENCE :

1. Jim Sterne, Social Media Metrics: How to Measure and Optimize Your Marketing Investment, John Wiley & Sons (16 April 2010)
2. Brian Clifton, Advanced Web Metrics with Google Analytics, John Wiley & Sons; 3rd Edition edition (30 Mar 2012)

Course Objective:

- The objective of the course is partly to give an introduction to the software R and how to write elementary programs and partly to demonstrate how statistical models are implemented and applied.
- At the end of the course the student will be able to import, manage and structure data files.
- Write simple program scripts for data analysis produce illustrative data plots and carry out statistical tests.

Course Outcomes:

- CO1 - Recognize and make appropriate use of different types of data structures;
- CO2 - Use R to create sophisticated figures and graphs;
- CO3 - Identify and implement appropriate control structures to solve a particular programming problem; and
- CO4 - Design and write functions in R and implement simple iterative algorithms.
- CO5 - Participants will learn to apply structured thinking to unstructured problems
- CO6 - Participants will be able to categorize and understand various data types.
- CO7 - Participants will be able to convert imprecise business relevant problem statements to precise data analytic problems.
- CO8 - Participants will learn the importance of visualization in the data analytics solution process
- CO9 – Outlines the application of R in real world situations.
- CO10 – Distinguishes between SAS and R programming.

Unit 1 Introduction to the R language**12**

SAS versus R - R, S, and S-plus - Obtaining and managing R - Objects - types of objects, classes, creating and accessing objects - Arithmetic and matrix operations - Introduction to functions

Unit 2 Working with R**12**

Reading and writing data - R libraries - Functions and R programming - the if statement - looping: for, repeat, while - writing functions -function arguments and options

Unit 3 Graphics**12**

Basic plotting - Manipulating the plotting window - Advanced plotting using lattice library - Saving plots

Unit 4 Standard statistical models in R**12**

Model formulae and model options - Output and extraction from fitted models - Models considered: Linear regression: `lm()` , Logistic regression: `glm()` , Linear mixed models: `lme()`

Unit 5 Advanced R**12**

Data management (importing, subsetting, merging, new variables, missing data etc.) Plotting– Loops and functions-Migration SAS to R– Plotting and Graphics in R – Writing R functions, optimizing R code– Bioconductor, analysis of gene expression and genomics data. More on linear models – Multivariate analysis, Cluster analysis, dimension reduction methods (PCA).

Total – 60 hours**Text Books:**

1. Peter Dalgaard. Introductory Statistics with R (Paperback) 1st Edition Springer-Verlag New York, Inc. ISBN 0-387-95475-9
2. W. N. Venables and B. D. Ripley. 2002. Modern Applied Statistics with S. 4th Edition. Springer. ISBN 0-387-95457-0

References:

1. Andreas Krause, Melvin Olson. 2005. The Basics of S-PLUS. 4th edition. Springer-Verlag, New York. ISBN 0-387-26109-5
2. Jose Pinheiro, Douglas Bates. 2000. Mixed-effects models in S and S-PLUS Springer-Verlag, Berlin. ISBN 0-387-98957-9
3. An Introduction to R. Online manual at the R website at <http://cran.r-project.org/manuals.html>

16DMBN43**HR ANALYTICS****4 0 0 3****Course Objective:**

- To understand the concepts, tools and techniques of HR Analytics that could be applied as resource management evidence based.
- To understand HR reports & to understand the decisions technologies.
- Recognize the fundamental strategic priorities of the business and learn how to provide enhanced decision support leveraging analytics.
- Develop a structured approach to apply judgment, and generate insight from data for enhanced decision making.

Course Outcomes:

- CO1 - It helps to analyse appropriate internal and external human resource metrics benchmarks and indicators.
- CO2 - Operate relational databases and make recommendations regarding the appropriate HRIS to meet organization's human resource needs.
- CO3 - Employ appropriate software to record, maintain, retrieve and analyse human resources information (e.g., staffing, skills, performance ratings and compensation information).
- CO4 - Apply quantitative and qualitative analysis to understand trends and indicators in human resource data; understand and apply various statistical analysis methods
- CO5 - Manage information technology to enhance the efficiency and effectiveness of

human resource functions within the organization.

- CO6 - In employee engagement, to measure the outcomes driven by data profiling.
- CO7 - In identifying metrics that influence attrition, and modelling the data for lowering attrition
- CO8 - In identifying the impact of L&D, through Evidence-based management, in enhancing employee performance
- CO9 - In ranking employees for their career progression roadmap
- CO10 – Identifies the data requirement and analysis.

UNIT I

12

Introduction to HR Analytics:

Basics of HR Analytics: Concept and Evolution of HR Analytics & data sources - HCM: 21Model. Use of workforce analytics to improve decision making. Analytics and Prediction. Introduction to HR Metrics and predictive analytics. Importance of HR Analytics. Data Analytic techniques using software packages. Future of Human Resource Analytics. HR Metrics and HR Analytics; Intuition versus analytical thinking.

UNIT II

12

Creating business understanding for HR initiatives: Workforce segmentation and search for critical job roles; Statistical driver analysis – association and causation; Linking HR measures to business results; choosing the right measures for scorecards; Identifying and using key HR Metrics.

UNIT III

12

Forecasting budget numbers for HR costs: Workforce planning including internal mobility and career pathing; training and development requirement forecasting and measuring the value and results of improvement initiatives; optimizing selection and promotion decisions

UNIT IV

12

Predictive modelling in HR: Employee retention and turnover; workforce productivity and performance; scenario planning.

UNIT V :**12**

Communicating with data and visuals: Data requirements; identifying data needs and gathering data; HR data quality, validity and consistency; Using historical data; Data exploration; Data visualization; Association between variables; Insights from reports; Root cause analysis of HR issues

Total – 60 hours**TEXT BOOK :**

1. Jac Fitz-Enz, The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments, Amacom.

2. Gene Pease, Boyce Byerly and Jac Fitz-enz, Human Capital Analytics: How to Harness the Potential of Your Organization's Greatest Asset, John Wiley & Sons

REFERENCE :

1. The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments: Predicting the Economic Value of Your Company's Human Capital Investments Hardcover – Import, 1 Jun 2010, Jacfitz-Enz

16DMBN31**OPERATIONS AND SUPPLY CHAIN ANALYTICS****4 0 0 3****Course Objective:**

- To provide foundational knowledge associated with the operations analytics
- To provide foundational knowledge associated with the supply chain analytics
- To describe the various tools and techniques for implementation of analytics based on the supply chain drivers such as location, logistics and inventory
- To describe the various techniques for analytics based on the Multi Attribute Decision Making (MADM) and risk
- To provide the applications of analytics in operations and supply chain

Course outcome:

CO – 1: To recognize on the fundamental concepts of location and layout.

CO – 2: To understand on the implementation of analytics in location and layout.

CO – 3: To understand the inventory techniques for analytics.

CO – 4: To analyze the inventory using aggregate production model

CO – 5: To identify the different network models.

CO – 6: To illustrate the transportation problems for analytics in network design.

CO – 7: To analyze the different dimensions using Analytic Hierarchy Process.

CO – 8: To analyze the different dimensions using Data Envelopment Analysis.

CO – 9: To identify the different types of analytics for operations and supply chain.

CO – 10: To explain the applications of analytics in operations and supply chain.

Unit I

Warehousing Decisions, Mathematical Programming Models, P-Median Methods, Guided LP Approach, Balmer – Wolfe Method, Greedy Drop Heuristics, Dynamic Location Models, Space Determination and Layout Methods

Unit II

Inventory Management, Inventory aggregation Models, Dynamic Lot sizing Methods, Multi-Echelon Inventory models, Aggregate Inventory system and LIMIT, Transportation Network Models, Notion of Graphs, Minimal Spanning Tree,

Unit III

Shortest Path Algorithms, Maximal Flow Problems, Multistage Transshipment and Transportation Problems, Set covering and Set Partitioning Problems, Traveling Salesman Algorithms, Advanced Vehicle Routing Problem Heuristics, Scheduling Algorithms-Deficit function Approach and Linking Algorithms

Unit IV

Analytic Hierarchy Process, Data Envelopment Analysis, Risk Analysis in Supply Chain, Measuring transit risks, supply risks, delivering risks

Unit V

Risk pooling strategies, Fuzzy Logic and Techniques-Application in SCM

References

1. Gerad Feigin, Supply Chain planning and analytics – The right product in the right place at the right time, Business Expert Press, 2011
2. Peter Bolstorff, Robert G. Rosenbaum, Supply Chain Excellence: A Handbook for Dramatic Improvement Using the SCOR Model, AMACOM Div American Mgmt Assn, 2007

3. Robert Penn Burrows, Lora Cecere, Gregory P. Hackett, The Market-Driven Supply Chain: A Revolutionary Model for Sales and Operations Planning in the New On-Demand Economy, AMACOM Div American MgmtAssn, 201

16DMBN44 PRICING ANALYTICS FOR REVENUE MANAGEMENT 4 0 0 3

Course Objective:

- This course provides an introduction to both the theory and the practice of revenue management and pricing.
- Fundamentally, revenue management is an applied discipline; its value derives from the business results it achieves. At the same time, it has strong elements of an applied science and the technical elements of the subject deserve rigorous treatment.
- The plan of this course is to discuss both these practice and theory elements.

Course outcomes;

- CO1 - Understand strategic and tactic roles of pricing in relevant business contexts
- CO2 - Know how to model real-world pricing decision making processes
- CO3 - Provide business insights using data and analytics
- CO4 - Know how to implement pricing solutions
- CO5 - Know how to measure financial performance of pricing
- CO6 - Understand that a successful business requires adequate revenues and a positive operational cash flow to generate profits
- CO7 - Pinpoint potential customer segments, anticipate needs and wants of customers, understand consumer behavior and their how these affect the business potential
- CO8 - Identify capacity bottlenecks and make adjustments to the business accordingly
- CO9 - Be able to utilize Ecommerce to support sales and marketing
- CO10 - Recognize the strategic impact of revenues to the business, organize resources

UNIT I Introduction: 12

Introduction: Examples and simulations - The Revenue Management Process - Classification and introduction to the models, course plan The Theories of Pricing: Brief review of microeconomic and marketing theories on consumer behavior and pricing - Product design, bundling and demand segmentation - Dynamic pricing policies

UNIT II Pricing policies and Revenue management model: 12

Pricing Policies in Action: Markdown policies and liquidations - Pricing with supply constraints - Customized pricing and e-commerce An Operational Model of Revenue Management: Stochastic Inventory Management and the Newsvendor Model - Single resource Revenue Management, expected marginal value to control sales – Overbooking

UNIT III Network Revenue Management: 12

Network Revenue Management: Network revenue management, control mechanisms - Linear Programming approach to Revenue Management - Applying network Revenue Management to different industries. Implementing a Revenue Management System: Solving Revenue Management Problems - Computational methods in Revenue Management - Performance Measurement

UNIT IV Demand Forecasting and Data Analysis: 12

Demand Forecasting and Data Analysis: Data, sources, systems, automation - Time-series forecasting and perfect demand segmentation models - Estimation techniques - Unconstraining for unobservable no-purchases--concept and the EM technique Competitive Factors: Imperfect segmentation model: Discrete choice models - Customer management and strategic purchasing behavior - RM Process management (organizational issues)

UNIT V Industry Applications: 12

Industry Applications: Various case studies related to capacity management in airlines, hotels, car rentals, cruises. Industry implementations and practices New Directions in Revenue Management: Business Analytics - Applications in new industries: Event sales, casinos, Display advertising - Bundling and Revenue Management

Total – 60 Hours

Text Books:

Robert L. Phillips., “Pricing and Revenue Optimization”, Stanford Business Book, 2005.

References:

K. Talluri and G. Van Ryzin., “The Theory and Practice of Revenue Management” , Kluwer Academic Publishers, 2004

16DMBN45**MODELING TECHNIQUES AND IT FOR OPERATIONS
MANAGEMENT****4 0 0 3****Course Objectives:**

1. To understand business requirements and technical requirements, regarding software systems that implement many functions required by modern organizations.
2. Controlling process executions, business processes can be performed faster, more reliably and more economically.
3. Process technology can also be used to model processes that are executed within software systems.

Course Outcomes:

- CO1: To understand and develop business models that supports a company's strategic objectives
- CO2: To understand the interdependence between financial and operational metrics used in value chain analysis to key decision makers.
- CO3: To understand a decision tree can also be used to help build automated predictive models, which have applications in machine learning, data mining, and statistics.
- CO4: To analyse the decision tree can also be created by building association rules, placing the target variable on the right.
- CO5: To acquire an idea about the computational procedure of Dynamic Programming
- CO6: To understand the basic concepts on which a problem is solved using dynamic programming.
- CO7: To understand Information Technology (IT) operations to analyze, design, integrate, and manage information systems using information technology.
- CO8: To understand the methods and tools to design, implement, test, document, and maintain a software system
- CO9: To understand the Methods and tools for analyzing complex real world problems and devise software-based solutions
- CO10: To Analyse complex real world problems and devise efficient software based solutions.

UNIT 1. INTRODUCTION TO BUSINESS MODELING: 12

Modeling – meaning and process, Certainty and uncertainty in models, importance of understanding data before modeling, modeling with spreadsheet in simple decision situations.

LINEAR PROGRAMMING: Application of LPP in operations management, Formulation of LPP, simplex method, duality, Sensitivity Analysis. Trans-shipment problems. Concept of Goal programming, Goal programming model formulation. (Numericals Expected)

UNIT 2. DECISION TREES: 12

Concept, Application of Decision Trees in operations management. (Numericals Expected) SEQUENCING PROBLEMS: Concept, Application, n jobs – 2 machines, jobs - 3 machines, n jobs – m machines. Comparison of priority sequencing rules. (Numericals Expected)

UNIT 3. DYNAMIC PROGRAMMING: 12

Conceptual Introduction to Dynamic programming. SIMULATION: Concept, Applications in Operations management

UNIT 4. DESIGN OF EXPERIMENTS: 12

Concept and Introduction, IT IN OPERATIONS: Importance of IT in operations, IT as a competitive edge, Role of IT in – Design, Production Planning, Layout and Logistical operations.

UNIT 5 SOFTWARES IN OPERATIONS: 12

Introduction, characteristics and key (5) features of software's for Project Scheduling, Logistics / Supply chain management and Quality management.

INTRODUCTION TO ERP SYSTEMS: Review of DBMS and Transaction processing concepts - Business Processes and integration across functions. Salient features of ERP systems offered by leading vendors, prerequisites and process of implementation.

Books Recommended:-

1. Quantitative Techniques in Management- N.D. Vohra – Tata- Mcgraw-Hill Publications
2. Quantitative Techniques for Managerial Decisions – J.K.Sharma – Macmillan India Ltd.
3. Managerial Decisions Modeling with Spreadsheets – Bal Krishnan, Render, Stair, Jr. - Pearson Education.
4. Operations Management for Competitive Advantage – Chase, Aquilano, Jacobs, Agarwal – Tata McGraw- Hill Publications

5. Production and Operations Management – Chary - Tata McGraw- Hill Publications
6. Introduction to Operations Research – Gillette B.E. – A computer oriented Approach – Tata McGraw Hill Publications
7. Operations Research – Taha Hatndy, A – An Introduction- PHI New Delhi
8. Quantitative Analysis for Management – Render, Stair, Jr. – Pearson Education.
9. Optimization Methods in Operations Research and Systems Analysis – Mittal and Mohan – New Age International Publishers, New Delhi
10. ERP Demystified- Eilon.

16DMBN46

Ethical and Legal Aspects of Analytics

4 0 0 3

Course Objective:

- To create the knowledge of Legal perspective and its practices to improvise the business.
- To describe the nature and classes of contracts.
- To identify the elements needed to create a contract.
- To read, interpret contracts, and cases.
- To identify personal property and bailment.

Course Outcome:

- CO – 1: To create the knowledge of ethics legal perspective and its practices to improvise the business.
- CO – 2: To clearly understand basics elements of contracts, classifications of contract and how to breach and get remedies of the contract
- CO – 3: To figure out the differentiate Sale and agreement to sell -conditions and warranties
- CO – 4: To have a better comprehend of companies act which will helpful for the budding managers
- CO – 5: To know about the different type of negotiable instrument in practice
- CO – 6: To be well versed with the ethical procedure to be followed in decision making and project.

- CO – 7: To analyses the magnitude of morale and ethics towards business.
- CO – 8: To familiar conflict management in legal perspective and judicial system pertaining to labour management relations.
- CO – 9: To realize the current legislative framework covering employment relations in present scenario.
- CO – 10: To understand a perspective of labour problems and remedial measures in the country.

Unit -I: Law of Contracts: 12

Definition of Contract and Agreement – Classification of Contracts, Essential elements of a valid Contract – Offer -Acceptance -Consideration –Capacity to Contract -Free consent – Legality of Object -Performance of Contract -Remedies for breach of Contract - Quasi Contracts.

Unit -II: Sale of Goods Act: 12

Distinction between Sale and agreement to sell -Conditions and Warranties. Negotiable Instruments Act – Definition and Characteristics of a Negotiable Instrument – Definitions, Essential elements and distinctions between Promissory Note, Bill of Exchange, and Cheques - Types of crossing.

Unit -III: Companies Act : 12

Definition of company – Characteristics -Classification of Companies-Formation of Company - Memorandum and Articles of Association – Prospectus -Share holders meetings -Board meetings -Law relating to meetings and proceedings-Qualifications, Appointment, Powers, and legal position of Directors -Board -M.D and Chairman - Their powers.

Unit -IV: Introduction: 12

Why human beings are ethical, why they are not ? Moral development in humans, theories, concepts . Definitions, theories of ethics and ethics projects . A Decision Making Model: Ethics as Making decisions and choices. Decision – making frameworks

Unit-V: Conflicts and Ethical Dilemmas : 12

moral& ethical dilemmas. Ethics and Business: A sense of business ethics. Ethics and International Business: Ethics Issues beyond borders

References:

1. N.D. Kapoor, 1999, 'Elements of Mercantile Law' , Sultan Chand & Co.
2. AkhileshwarPathak, 2007, Legal Aspects of Business, 3rd Edition, Tata McGraw Hill.

3. K.R. Bulchandani, 2006, Business Law for Management, Himalaya Publishing House
4. V.K. Agarwal, 1988, 'Consumer Protection in India ', Deep and Deep Publications.
5. Dr. Avtar Singh, 1999, 'Companies Act', Eastern Book Company.
6. PPS Gogna, 2006, A Text Book of Company Law, S. Chand.
7. V. Ramakrishna Raju, 2005, Business Laws and Economic Legislations, Himalaya Publishing House.
8. S.N. Maheswari and S. K. Maheswari, 2006, Business Laws, Himalaya Publishing House.

16GMBN32

**ADVANCED RESEARCH METHODS AND
PREDICTIVE ANALYSIS**

4 0 0 3

COURSE OUTCOME :

- CO -1: Understand appropriate and relevant fundamental and applied evidence based knowledge and undertake lifelong learning to improve personal and professional practice.
- CO – 2: Demonstrate a capacity to employ a variety of approaches and procedures to research to permit judgments and decisions to be supported by appropriate evidence that places practice within a global and local context.
- CO -3: Applies knowledge to diagnose and solve problems in a wide range of diverse situations, with an ability to work independently or with others and incorporate the analysis of evidence based scientific literature to solve psychological problems.
- CO -4: Engage in dialogue with a diverse range of people and communicate in a broad range of forms (written, electronic, graphic, oral) to meet the circumstances of the situation and the capabilities of the audience.
- CO -5: Maintains tolerance and respect for individuals and groups from diverse backgrounds, holding diverse values, adhering to professional expectations and demonstrating ethical behavior.
- CO -6: Describe the important methodological and design issues underlying applied human research.
- CO -7: Carry out independent research using a range of research designs and methods.

CO -8: Analyze, and interpret the data using specific statistical tools.

CO -9: Describe the essential features of a range of advanced statistical techniques.

CO -10: Students will engage in a range of learning activities, with an emphasis on problem-based learning focusing on the application of data analysis techniques for addressing the research questions at the heart of their own research projects.

Unit I - Conceptual foundations of research **12**

Meaning of research and scope of research methodology, Identification of problem area, Formulation of research questions, Typology of Research Designs. Overview of quantitative research, Logic of Inquiry, Construction of theories, Conceptual framework in quantitative research. Introduction to Academic Writing, Structure of Academic Writing, Reading for Research, Academic Styles, Plagiarism, Publication, Online Resources. Specific Research Methodology

Unit 2: Sampling Design and Tools **12**

Sampling: Process and Types sampling; probability and non probability sampling, Validity: Internal and external validity, Threats to Validity: Threats to internal validity and external validity, balancing internal and external validity. Reliability: Factors influencing reliability.

Unit3: Multivariate Designs and Analysis **12**

Introduction to Multivariate methods and analysis, Discriminant Analysis Multiple, logistic and hierarchical regression Factor analysis, structural equation modeling (SEM) ,Meta analysis, Mediation Analysis, Canonical Analysis. Advantages of multivariate strategies

Unit4: Predictive analysis **12**

Simple linear regression: Coefficient of determination, Significance tests, Residual analysis, Confidence and Prediction intervals

Multiple linear regression: Coefficient of multiple coefficient of determination, Interpretation of regression coefficients, Categorical variables, heteroscedasticity, Multi-collinearity, outliers, Autoregression and Transformation of variables

Unit 5 : **12**

Logistic and Multinomial Regression: Logistic function, Estimation of probability using logistic regression, Deviance, Wald Test, Hosmer Lemshow Test Forecasting: Moving average,

Exponential smoothing, Trend, Cyclical and seasonality components, ARIMA (autoregressive integrated moving average).

Application of predictive analytics in retail, direct marketing, health care, financial services, insurance, supply chain, etc.

Total: 60 hours

Text Books:

1. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods, 11th Edition, Tata McGraw Hill, New Delhi, 2012.
2. Alan Bryman and Emma Bell, Business Research methods, 3rd Edition, Oxford University Press, New Delhi, 2011.

References:

1. Uma Sekaran and Roger Bougie, Research methods for Business, 5th Edition, Wiley India, New Delhi, 2012.
2. William G Zikmund, Barry J Babin, Jon C.Carr, AtanuAdhikari,Mitch Griffin, Business Research methods, A South Asian Perspective, 8th Edition, Cengage Learning, New Delhi, 2012.

16DMBN33 BUSINESS OPTIMIZATION AND BIG DATA ANALYSIS 4 0 0 3

Course Objective:

- To provide foundational knowledge associated with the domain of business optimization and analytics
- To familiarise the students with all concepts of optimisation techniques
- To understand the simulation for analytics
- To describe the big data analytics

Course outcome:

- CO – 1: To recognize on the fundamental concepts of Optimization.
- CO – 2: To understand on the Business applications of Optimization.
- CO – 3: To understand the operations research techniques for analytics.
- CO – 4: To illustrate the transportation problems for analytics.
- CO – 5: To recognize the types of Simulation for analytics.
- CO – 6: To design the Simulation models for analytics.

CO – 7: To identify the different dimensions data for big data analytics.

CO – 8: To explain the applications of big data analytics.

CO – 9: To identify the different types of analytics.

CO – 10: To explain the application software of analytics.

Unit I : Modeling

12

Overview: processes, Big Data, Models. Productivity and efficiency. Classification of models. Sensitivity analysis. The seven-step modeling process. Spreadsheet modeling. Excel's pivot function.

Unit II: Linear Programming

12

Linear Programming, Introduction to Linear Programming (LP). Graphical representation. Basic assumptions. The simplex algorithm. Infeasibility and unboundedness. Production problem example. Production scheduling. Bond portfolio optimization. Extracting additional meaning from LP models: shadow prices, sensitivity analysis

Unit III, Visualization

12

Visualization, Organization/sources of data , Importance of data quality . Dealing with missing or incomplete data, Data Classification

Unit IV:

12

Decision modeling, Optimization Use of Excel to solve business problems: e.g. marketing mix, capital budgeting, portfolio optimization, Goal programming; pareto optimality and trade-off curves; the Analytic Hierarchy Process (AHP)

Unit V :

12

Process Mining, Concept and content of workflow logs; discovering the underlying process; discovering exceptions. Process Mining (Course Notes). ProM - process mining toolkit

References:

- Winston, Wayne L. and S. Christian Albright, "Practical Management Science." Pacific Grove, CA: Duxbury, 2001 (3rd edition). (W&A)
- Vasant Dhar and Roger Stein (1997). Seven methods for transforming corporate data into business intelligence. Upper Saddle River: Prentice Hall.
- Kelton, W. David, et al. (2006). Simulation with Arena, McGraw-Hill Professional (5th edition).

- Weske, Mathias (2007), Business Process management: Concepts Languages and Architectures. Berlin: Springer-Verlag.

List of Generic Electives (GE)

16GMBN34

E - BUSINESS MANAGEMENT

4 0 0 3

Course Objective: To understand the practices and technology to start an online business. To know how to build and manage an e-business. Businesses are recognizing the Internet's role in the decision process that organizations go through in analyzing and purchasing goods and services. E-Business Management involves all aspects of an organization's electronic interactions with its stakeholders, the people who determine the future of the organization

Course Outcome:

CO – 1: To recognize the impact of Information and Communication technologies, especially of the Internet in business operations.

CO – 2: To recognize the fundamental principles of e-Business and e-Commerce.

CO – 3: To distinguish the role of Management in the context of e-Business and e-Commerce

CO – 4: To explain the added value, risks and barriers in the adoption of e-Business and e-Commerce

CO – 5: To examine applications of e-Commerce in relation to the applied strategic

CO – 6: To use tools and services of the internet in the development of a virtual e-commerce site

CO – 7: To understand the various characteristics of electronic payment systems.

CO – 8: To explain the security protocols and the issues in internet security.

CO – 9: To discuss various legal and ethical issues specific to E-Business.

CO – 10: To explain the privacy issues specific to e-business.

UNIT I INTRODUCTION TO E-BUSINESS

12

Overview of E-Business; Fundamentals, E-Business framework; E-Business application; Major requirements in E-Business; Emerging trends and technologies in E-Business; From E-Commerce to E-Business.

16GMBN35 E-TECHNOLOGY & MANAGEMENT 4003

Course Objective: To expose the students to the basic principles of the information technologies for e-business management. Upon completion of this course, the students should have a good working knowledge of information technologies, management information systems, legal issues, and marketing issues of e-business.

Course outcomes:

1. To understand the basic requirement of e-business and major requirements for doing e-business
2. To understand the fundamentals and technologies associated with e-business
3. To explain the importance of e-marketing.
4. To explain and illustrate the use of online advertising and online marketing strategies.
5. To understand the different forms of electronic payments.
6. To understand about the access and security over electronic payment systems.
7. To explain the value of CRM. Able to help teams articulate their CRM goals and identify key milestones in the relationship management process.
8. To measure the success of their relationship management efforts.
9. To appraise various social issues associated with the conduct of e-business
10. To understand the legal and ethical issues involved in e-business.

UNIT I INTRODUCTION TO E- BUSINESS

12

Overview of E-Business; Fundamentals, E-Business framework; E-Business application; Major requirements in E-Business; Emerging trends and technologies in E-Business; From E-Commerce to E-Business.

UNIT II E-MARKETING AND ADVERTISING

12

Web marketing strategies – communicating with different market segments – E-mail marketing – steps involved in E-marketing plan – E-marketing technologies – building a website– Advertising on the web – banner ads – other web ad formats.

UNIT III ELECTRONIC PAYMENT SYSTEMS 12

Online payment basics – E-payments and protocols – E-cash –Online and offline cash — electronic wallets –Yahoo wallet – EGML standard – stored value cards – magnetic strip cards – smart cards.

UNIT IV CRM 12

Fundamentals of CRM - CRM benefits – building customer relationship – CRM building blocks – CRM metrics – Building a CRM infrastructure

UNIT V LEGAL ETHICAL & SECURITY ISSUES IN E-BUSINESS 12

Legal environment of e-commerce – ethical issues – Taxation and e-commerce – Security threats – Intellectual property threat – Cyber squatting – name changing – name stealing – potential exposures – virus, hacking, line tapping, spoofing and sniffing

Total: 60 hours

TEXT BOOKS:

1. Gary P. Schneider, Electronic commerce – 4 th edition, 2002
2. Judy Strauss, Adel el-Ansary, Raymond Frost, E-Marketing 4 th edition, 2006

REFERENCE BOOKS:

1. Dr. Ravi Kalakota, Robinson, E-Business – Road map for success – 2nd edition 2000
2. Thomas H. Davenport Process Innovation - Reengineering Work through Information Technology Harvard Business School Press, Boston 1993

Course Objective: The overall objectives are to understand internet users and to identify profitable E-Marketing strategies. Understand the E-Marketing context: e-business models, performance metrics, and role of strategic planning. Describe marketing strategies of segmenting, targeting, positioning, and differentiation. Know how to use marketing functions of product, pricing, distribution, and marketing communication for a firm's E-Marketing strategy. Evaluate several customer relationship management (CRM) strategies using internet technology.

Course Outcomes

- CO – 1: To explain the importance of e-marketing;
- CO – 2: To understand the applications of various e-business models.
- CO – 3: To explain and illustrate the use of search engine marketing, online advertising and online marketing strategies;
- CO – 4: To explain the role of e-marketing plans as a component of corporate-level plans;
- CO – 5: To conduct secondary research using various sources to identify and synthesize data into useful management information;
- CO – 6: To recognise and write appropriate e-marketing objectives;
- CO – 7: To critically analyse planning options and offer constructive and practical alternative solutions
- CO – 8: To formulate an integrated and comprehensive e-marketing plan
- CO – 9: To describe in detail the implementation of an e-marketing plan, including the management of necessary internal organizational change;
- CO – 10: To communicate effectively about e-marketing in written and oral reports.

UNIT I INTRODUCTION TO E-MARKETING**12**

Business Models to E-Business Models – E-Business Models – Performance Metrics – The Balanced Scorecard. E-Marketing Plan: Overview of the E-Marketing Planning Process – Creating an E-Marketing Plan – A Seven-Step E-Marketing Plan.

UNIT II THE E-MARKETING ENVIRONMENT**12**

Overview of Global E-Marketing Issues – Country and Market Opportunity Analysis – Technological Readiness Influences Marketing – Wireless Internet Access – The Digital Divide Ethical and Legal Issues – Privacy – Digital Property – Online Expression – Cyber Security – Cyber Crime

UNIT III E-MARKETING RESEARCH**12**

Data Drive Strategy – Marketing Knowledge Management – Monitoring Social Media – Technology-Enabled Approaches – Real-Space Approaches – Marketing Databases and Data Warehouses – Data Analysis and Distribution – Knowledge Management Metrics

UNIT IV E-MARKETING MANAGEMENT**12**

Products on Internet – E-Marketing Enhanced Product Development – Distribution – Online Channel Intermediaries – Distribution Channel Length and Functions – Distribution Channel Metrics – Internet Advertising – Sales Promotion Offers – Direct Marketing – Personal Selling

UNIT V CUSTOMER ACQUISITION AND RETENTION**12**

Profile of Consumers – Browsing Behavior Model – Building Customer Relationships – Relationship Marketing – Stakeholders – Customer Relationship Management (CRM) – Privacy – Security – Intellectual Property – Mobile Marketing

Total: 60 hours**TEXT BOOKS:**

1. Judy Strauss and Raymond Frost, E-Marketing, Prentice Hall, 7th Edition, 2013
2. M. L. Roberts and Debra Zahay, Internet Marketing: Integrating Online and Offline Strategies., Cengage Publishing, 3rd edition, 2013
3. Digital Marketing: Strategy, Implementation and Practice, Chaffey D., Ellis-Chadwick F., Pearson, 5th Edition, 2012
4. Rob Stokes, E Marketing – the essential guide to online marketing, flat world

Knowledge, 2nd edition, 2010

5. Hatem El-Gohary and Riyadh Eid, E-marketing in Developed and Developing Countries: Emerging Practices, IGI Global, 1st edition, 2013

REFERENCE BOOKS:

1. David Meerman Scott, “The New Rules of Marketing and PR: How to Use Social Media, Blogs, News Releases, Online Video, and Viral Marketing to Reach Buyers Directly”, Wiley 4th Edition, Jan 2010

3. P. T. Joseph, E-Commerce: An Indian Perspective, Prentice Hall, 4th Edition, 2013

16GMBN37

ELECTRONIC COMMERCE

4 0 0 3

COURSE OBJECTIVE:

To understand e-commerce, types of e-commerce, retail e-commerce-commerce industry frame work, electronic payment systems, electronic fund transfer, web branding strategies, mobile commerce strategies for business over web, web hosting. Train in regulatory aspects and implications of e-commerce in the region, as well as its technological, political, security and economic components.

COURSE OUTCOME

CO – 1: Demonstrate an understanding of the foundations and importance of E-commerce

CO – 2: Demonstrate an understanding of retailing in E-commerce by analyzing branding and pricing strategies.

CO – 3: By sing and determining the effectiveness of market research& Assessing the effects of disintermediation.

CO – 4: Analyze the impact of E-commerce on business models and strategy

CO – 5: Describe Internet trading relationships including Business to Consumer, Business-to-Business, Intra-organizational.

CO – 6: Describe the infrastructure for E-commerce

CO – 7: Describe the key features of Internet, Intranets and Extranets and explain how they relate to each other.

CO – 8: Discuss legal issues and privacy in E-Commerce

CO – 9: Assess electronic payment systems

CO – 10: Recognize and discuss global E-commerce issues

UNIT I Introduction **12**

Traditional commerce and E commerce – Internet and WWW – role of WWW – value chains – strategic business and Industry value chains – role of E commerce.

UNIT II Infrastructure for E COMMERCE **12**

Packet switched networks – TCP/IP protocol script – Internet utility programmes –SGML, HTML and XML – web client and servers – Web client/server architecture – intranet and extranets.

UNIT III Web Based Tools for E COMMERCE **12**

Web server – performance evaluation - web server software feature sets – web server -software and tools – web protocol – search engines – intelligent agents –EC software – web hosting – cost analysis.

UNIT IV Security **12**

Computer security classification – copy right and Intellectual property – electronic -commerce threats – protecting client computers – electronic payment systems – electronic cash – strategies for marketing – sales and promotion – cryptography – authentication.

UNIT V Intelligent Agents **12**

Definition and capabilities – limitation of agents – security – web based marketing – search engines and Directory registration – online advertisements – Portables and info mechanics – website design issues.

Total – 60 Hours

Text Books:

1. Gary P Schneider “Electronic commerce”, Thomson learning & James T Peny Cambridge USA, 5th edition 2001.
2. Manlyn Greenstein and Miklos “Electronic commerce” McGraw-Hill, 7th edition 2002.

Reference Books:

1. EfraimTurvanJ.Lee, David Kug and Chung, “Electronic commerce” Pearson Education Asia, 7th edition, 2001.

2. Brenda Kienew E commerce Business Prentice Hall, 5th edition, 2001

16GMBN38 TIME SERIES ANALYSIS 4 0 0 3

Course Objective: The objective of this course is to provide students with an overview and in depth knowledge of quantitative techniques used for forecasting and their application. This includes techniques that range from simple ones like moving averages and smoothing techniques to more sophisticated ones like regression models, ARIMA (and related) models, VAR and VECM models, Causality testing and ARCH and GARCH models to test volatility.

Course Outcomes:

CO-1: To utilize the time series method to predict the future of sales in a concern.

CO-2: To record the cyclical variations of the market and its trend.

CO-3: To assess the degree of regression among the variables.

CO-4: To record and predict the seasonal variations of a product and its derivatives.

CO-5: To estimate the variance and regression in complex web of factors.

CO-6: To suppress the large variations in predicting the trend.

CO-7: To undermine the smoothing of rough variations along a seasonal curve.

Co-8: To characterize the factors of causality in time series analysis.

Co-9: To construct a chain of time factors during which operations of management excels.

Co-10: To record the random variations associated in constructive model of business over the years.

Unit I INTRODUCTION TO TIME SERIES ANALYSIS 12

Utility of the Time Series , Components of Time Series - Long term trend or secular trend - Seasonal variations - Cyclic variations - Random variations, Methods of Measuring Trend - Free hand or graphic method - Semi-average method - Method of moving averages - Method of least squares.

UNIT-II MODELS AND FORECAST FOR TIME SERIES DATA 12

Additive model - multiplicative model, Editing of Time Series, Measurement of Seasonal Variation - Seasonal average method - Seasonal variation through moving averages - Chain or link relative method - Ratio to trend method, Forecasting Methods Using Time Series - Mean forecast - Naive forecast - Linear trend forecast - Non-linear trend forecast - Forecasting with exponential smoothing.

UNIT III VECTOR AUTO REGRESSION MODEL(VAR) 12

Estimation and Identification, - Variance decomposition and Impulse response functions, - Causality applying Granger Causality Tests and VAR model, -Forecasting using a VAR model.

UNIT IV STOCHASTIC PROCESS 12

Stochastic process and its main characteristics Stochastic process. Time series as a discrete stochastic process. Stationarity. Main characteristics of stochastic processes (means, autocovariation and autocorrelation functions). Stationary stochastic processes. Stationarity as the main characteristic of stochastic component of time series.

UNIT V LINEAR TIME SERIES 12

Moving Average Models, Autoregressive Models, Mixed Autoregressive and Moving Average Models, Homogeneous Non-Stationary Processes: ARIMA Models, Box-Jenkins Methodology, Specification of ARIMA Models, SARIMA, ARMAX Models

TOTAL – 60 HOURS

TEXT BOOKS:

1. Wayne A. Woodward, Henry L. Gray, Alan C Elliott, Applied Time Series Analyses, October 26, 2011 by CRC Press.
2. K.Krishnamoorthy, Handbook of Statistical Distributions with Applications, Second Edition, November 6, 2015.

REFERENCE BOOKS:

1. Jonathan D. Cryer, Kung-Sik Chan, Time Series Analysis: With Applications in R (Springer Texts in Statistics), second edition, November 17, 2010.
2. Sally Lesik, Applied Statistical Inference with MINITAB®, December 21, 2009

Course Objective:

- To introduce the basic concepts, functions and processes of human resource management.
- To create an awareness of the role, functions of human resource department of the organizations

Course Outcome:

CO 1: Discuss the History and evolution of HRM.

CO 2: Explain the importance of HRM in the organizations through their Roles and responsibilities, challenges etc.

CO3: To assess the major HRM functions and processes of HRM planning, job analysis and design, recruitment, selection, training and development, compensation and benefits, and performance appraisal

CO4: Identify strategic HR planning and the HRM process to the organization's strategic management and decision making process.

CO 5: Explain how training helps to improve the employee performance.

CO 6: Discuss and understand the concept of career development and various career stages

CO7: Compare the difference between coaching and Mentoring

CO8: Analyze the emerging trends, opportunities and challenges in performance appraisal.

CO 9: To apply the Concept of job application and how it is practically applied in the org.

CO10: Discuss various recent techniques related to HRM.

UNIT I- HUMAN RESOURCE MANAGEMENT**12**

Meaning, Scope & Objectives of HRM, Evolution of HRM, Difference between PM & HRM, HRM function's, HR as a Strategic Business Partner, HR Policy & procedures. Competitive challenges influencing HRM Qualities & qualification of HR Manager, Roles and Responsibilities of HR Manager/Departments,

UNIT II - HUMAN RESOURCE PROCESS**12**

Human Resource Planning – Job Analysis and Design -Recruitment - Selection and placement process – Types of interviews, Placement, Orientation & Induction, Determining training needs, Training Approaches. Separation process & Exit interview.

UNIT III MANAGING CAREERS**12**

Career Development vs Employee development, Career stages – Career Choices and Preferences, Mentoring and Coaching, Time Management.

UNIT IV PERFORMANCE MANAGEMENT**12**

Purposes of Performance Management, Performance Appraisal Methods, Punishment and Promotion, Job evaluation. Wage & Salary administration – Concepts, Pay structure, Incentives, Bonus, Insurance.

UNIT V CONTEMPORARY ISSUES IN HRM**12**

Talent Management, Competency Mapping, Industrial Relations – Health & Safety issues, grievance handling, D Work Life Balance, Quality of Work Life, HRD in India, International HRM

TOTAL – 60 HOURS**Text Books**

1. Aswathappa.K, Human Resource Management, Text and Cases, Tata McGraw Hill, New Delhi. 2014
2. Gupta. S.C, Advanced Human Resource Management, Strategic Perspective, ANE Books Pvt.Ltd, New Delhi.2009.

Course Objective:

- To provide foundational knowledge associated with the Information Security.
- To provide the knowledge based on the security investigation.
- To describe the risk analysis for security.
- To describe the logical design for security
- To provide the applications of physical design for security

Course outcome:

CO – 1: To recognize on the fundamental concepts of information security.

CO – 2: To understand the different security models.

CO – 3: To understand the business needs for security investigation.

CO – 4: To identify the Issues such as Legal, Ethical and Professional

CO – 5: To identify the risk for security.

CO – 6: To assess the risk for security.

CO – 7: To understand the different standards and practices for logical design.

CO – 8: To understand the design of security architecture.

CO – 9: To identify the security technology for physical design.

CO – 10: To access the control devices for physical design.

UNIT I**INTRODUCTION****12**

History, What is Information Security?, Critical Characteristics of Information, NSTISSC Security Model, Components of an Information System, Securing the Components, Balancing Security and Access, The SDLC, The Security SDLC

UNIT II**SECURITY INVESTIGATION****12**

Need for Security, Business Needs, Threats, Attacks, Legal, Ethical and Professional Issues

UNIT III**SECURITY ANALYSIS****12**

Risk Management: Identifying and Assessing Risk, Assessing and Controlling Risk

UNIT IV

LOGICAL DESIGN

12

Blueprint for Security, Information Security Policy, Standards and Practices, ISO17799/BS 7799, NIST Models, VISA International Security Model, Design of Security Architecture, Planning for Continuity

UNIT V

PHYSICAL DESIGN

12

Security Technology, IDS, Scanning and Analysis Tools, Cryptography, Access Control Devices, Physical Security, Security and Personnel

TEXT BOOK:

1. Michael E Whitman and Herbert J Mattord, "Principles of Information Security", Vikas Publishing House, New Delhi, 2003

REFERENCES:

1. Micki Krause, Harold F. Tipton, "Handbook of Information Security Management", Vol 1-3
CRC Press LLC, 2004.
2. Stuart McClure, Joel Scrambray, George Kurtz, "Hacking Exposed", Tata McGraw- Hill,
2003
3. Matt Bishop, "Computer Security Art and Science", Pearson/PHI, 2002

16GMBN40 MARKETING AND RETAIL ANALYTICS 4 0 0 3

Course Objectives:

1. To create an understanding of the use of analytics in Marketing and Retail Management.
2. To use the predictive analysis in decision making.

Course Outcome:

1. To understand the market place and the changing consumer needs.
2. To identify various methods followed build CRM practices.
3. To recognize the various segments for a product.
4. To identify the various positioning strategies followed by the companies.
5. To compare and contrast products and services.
6. To contrast the characteristics of industrial and consumer goods.
7. To apply the predictive analysis in the marketplace.
8. To identify the various techniques for predictive analysis
9. To apply predictive modelling in retailing sector.
10. To understand the need for digital evolution in marketing and retail sector specifically.

UNIT I INTRODUCTION TO MARKETING 12

Understanding the marketplace and consumer needs, Designing a Customer Driven Marketing Strategy, Building Customer Relationships, Consumer Behaviour and Business Buyer Behaviour

UNIT II MARKETING STRATEGY 12

Market Segmentation and Product Positioning, Market Segmentation, Market Targeting, Target Market Strategies, Product Positioning and Differentiation, Choosing a Differentiation and Positioning Strategy.

UNIT III PRODUCT AND SERVICE**12**

Products and services, product and service classifications, consumer products, industrial products, product and service decisions, product and service attributes, product support services, services marketing – the nature and characteristics of a service

UNIT IV RETAIL ANALYTICS – I**12**

Customer Analytics Overview; Quantifying Customer Value. Using Stata for Basic Customer Analysis. Predicting Response with RFM Analysis, Statistics Review, Predicting Response with Logistic Regression, Predicting Response with Neural Networks. Predicting Response with Decision Trees.

UNIT V RETAIL ANALYTICS – II**12**

The digital evolution of retail marketing, Digital natives, Constant connectivity Social interaction, Predictive modelling, Keeping track, Data availability, Efficiency optimization.

Total: 60 hours**TEXT BOOKS:**

1. Kotler, P., Keller, K. L., Koshy, A., Jha, M. Marketing Management: A South Asian Perspective. New Delhi: Pearson Education, 14th edn., 2013
2. Rajan, S. Marketing Management. India: New Delhi: Tata McGraw-Hill Education. 4th edn, 2005

REFERENCE BOOKS:

1. Karunakaran, K. Marketing Management. New Delhi: Himalaya Publishing House. 3rd edition, 2013
2. Kumar, A., Meenakshi. Marketing Management. New Delhi: Vikas Publishing House Pvt Ltd., 2nd edition, 2013
3. Ramaswamy, V. S., Namakumari, S. Marketing Management Global Perspective, Indian Context. New Delhi: Macmillan India Limited. 3rd edition, 2009

Course Objective:

- To provide foundational knowledge associated with the Cloud Computing.
- To provide the knowledge based on the development of Cloud Service.
- To describe the applications of Cloud Computing.
- To describe the applications of Collaborating using Cloud Service.
- To describe the applications of Collaborating using online.

Course outcome:

CO – 1: To recognize on the fundamental concepts of Cloud Computing.

CO – 2: To understand the Cloud Architecture and Storage.

CO – 3: To recognize on the fundamental concepts of Cloud Services.

CO – 4: To identify the development of Cloud Service.

CO – 5: To identify the applications of Cloud Computing.

CO – 6: To compare the applications of Cloud Computing.

CO – 7: To identify the applications of Collaborating using Cloud Service.

CO – 8: To compare the applications of Collaborating using Cloud Service.

CO – 9: To identify the tools of the applications of Collaborating using online.

CO – 10: To understand the applications of Collaborating using online.

UNIT I UNDERSTANDING CLOUD COMPUTING 12

Cloud Computing – History of Cloud Computing – Cloud Architecture – Cloud Storage – Why Cloud Computing Matters – Advantages of Cloud Computing – Disadvantages of Cloud Computing – Companies in the Cloud Today – Cloud Services

UNIT II DEVELOPING CLOUD SERVICES 12

Web-Based Application – Pros and Cons of Cloud Service Development – Types of Cloud Service Development – Software as a Service – Platform as a Service – Web Services – On-Demand Computing – Discovering Cloud Services Development Services and Tools – Amazon Ec2 – Google App Engine – IBM Clouds

UNIT III

CLOUD COMPUTING FOR EVERYONE

12

Centralizing Email Communications – Collaborating on Schedules – Collaborating on To-Do Lists – Collaborating Contact Lists – Cloud Computing for the Community – Collaborating on Group Projects and Events – Cloud Computing for the Corporation

UNIT IV USING CLOUD SERVICES

12

Collaborating on Calendars, Schedules and Task Management – Exploring Online Scheduling Applications – Exploring Online Planning and Task Management – Collaborating on Event Management – Collaborating on Contact Management – Collaborating on Project Management – Collaborating on Word Processing - Collaborating on Databases – Storing and Sharing Files

UNIT V OTHER WAYS TO COLLABORATE ONLINE

12

Collaborating via Web-Based Communication Tools – Evaluating Web Mail Services – Evaluating Web Conference Tools – Collaborating via Social Networks and Groupware – Collaborating via Blogs and Wikis

Total: 60 hours

REFERENCES

1. Michael Miller, Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online, Que Publishing, August 2008.
2. Haley Beard, Cloud Computing Best Practices for Managing and Measuring Processes for On-demand Computing, Applications and Data Centers in the Cloud with SLAs, Emereo Pty Limited, July 2008.

Course Objective:

- The objective of the course is to bring about personality development with regard to the different behavioural dimensions that have far reaching significance in the direction of organizational effectiveness.
- To enhance the overall development of the students.
- To understand the concept of success and failures and its implications on organizational function.
- To improve interpersonal skills and be an effective team player.

Course Outcome:

Co1: To discuss the concept SWOT and its outcome.

Co2: To explain the communication skills and the self confidence.

Co3: To revise the concept of self esteem with examples

Co 4:To compare the concept of success and failure and its causes

Co5: To discuss the concept of motivation and also various factors leading to motivation and demotivation,

Co6: To discuss leadership skills and also to know various types of leadership.

Co7: To explain the concept of Team building and the problem solving techniques

Co8: To analyze the time management skills and various techniques to handle

UNIT I INTRODUCTION**12**

Introduction to Personality and working towards developing it – Definition and Basics of Personality – Analyzing Strengths and Weakness – Increasing Vocabulary – Body Language – Preparation for Self-Introduction – Communication Skills – Building Self Esteem and Self Confidence

UNIT II TEAMS**12**

Term self-esteem - Symptoms - Advantages - Do's and Don'ts to develop positive self- esteem – Low self-esteem - Symptoms - Personality having low self-esteem - Positive and negative self-esteem. The concept of success and failure. What is success? - Hurdles in achieving success -

Overcoming hurdles - Factors responsible for success – What is failure - Causes of failure - Do's and Don'ts regarding success and failure.

UNIT III ATTITUDE

12

Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude - Advantages - Negative attitude - Disadvantages - Ways to develop positive attitude - Difference between personalities having positive and negative attitude. Concept of motivation - Significance - Internal and external motives - Importance of self-motivation- Factors leading to demotivation

UNIT IV LEADERSHIP

12

Introduction to Leadership, Leadership Power, Leadership Styles, Leadership in Administration. Group Dynamics Importance of groups in organization, and Team Interactions in group, Group Building Decision Taking, Team Building, Interaction with the Team, How to build a good team?

UNIT V TECHNIQUES

12

Group Discussion - Resume Writing- Telephone, E-mail and Public Relations Office's Etiquettes - Telephone conversation - Time Management Styles- Techniques for better Time Management.

Total – 60 hours

Text Books:

1. K.S.Antonyamy, Soft Skills and Personality Development – A hand book of Employability skills, nichole, 2012

References:

1. Paul C. Nutt, Why Decisions Fail, BerrettKochler Publishers, Inc. San Francisco, 2002.
2. Kenneth G. Mcgee, Heads Up : How to Anticipate Business Surprises & Seize Opportunities First, Harvard Business School Press, Boston, Massachusetts, 2004.
3. James G. March, Primer on Decision Making, Simon & Schuster Inc., New York, 1994.
4. Indrajit Bhattacharya, An Approach to Communication Skills, DhanpatRaiDelhi, 2008.

CourseObjective:

- To understand the strategic role of operations management in creating and enhancing a firm's competitive advantages.
- To understand the concepts of layout, planning, maintenance, quality and inventory control, material and store management.

Course Outcomes

- To gain an understanding and appreciation of the principles and applications relevant to the planning, design, and operations of manufacturing/service firms.
- To understand the managerial responsibility for Operations, even when production is outsourced, or performed in regions far from corporate headquarters
- To describe the boundaries of an operations system, and recognize its interfaces with other functional areas within the organization and with its external environment.
- Demonstrate a basic understanding of the problems of waiting lines.
- Demonstrate an understanding of the principles of just-in-time systems.
- Demonstrate the ability to apply some mathematical forecasting techniques.
- Develop basic materials requirement schedules.
- Demonstrate an understanding of the concepts of operations scheduling.

UNIT I INTRODUCTION**12**

Definition of Operations Management, evolution of Production Management as Operations Management.-Role of Operations Management in total management System-Interface between the operation systems and systems of other functional areas. Production systems. Plant Location and the factors influencing location. Plant layout - different types of layouts.LineBalancing.

UNIT II PLANNING AND CONTROL OF PRODUCTION OPERATIONS 12

Production Planning and Control: Basic functions of Production Planning and Control, Maintenance Management: Objectives: – Failure Concept, Reliability, Preventive and Breakdown maintenance, Replacement policies.

UNIT III QUALITY CONTROL**12**

Quality Control and Quality Circles – Statistical Quality Control – Method Study and Work measurement – Its uses and different methods, computation of allowance and allowed time.

UNIT IV MATERIALS MANAGEMENT**12**

Need use and importance of Material management - Materials Requirement Planning- Materials Budgeting- Sources of Supply of Materials -election, evaluation and Performance of suppliers - make or buy decisions - Vendor rating - determinants of vendor rating

UNIT V: STORES MANAGEMENT:**12**

Objectives: of Stores Management – Requirements for efficient. Management of Stores -safety stock. Inventory Control - Different Systems of Inventory Control, Types of Inventory. Costs - Systems of inventory control – ABC, VED and FSN analyses.

Total – 60 Hours**Textbooks:**

1. Stevenson J. William, Operations Management, 9th Edition, TMH, 2007.
2. Hanna, D.Mark& Rocky Newman, W, Integrated Operations Management-Addingvalue for Customers,PHI, 2001,
3. Aswathappa K. and SridharaBhat, Production and Operations Management, Himalaya Pub. House, 2003.
4. Lee J. krajewski and Larry P.Ritzman, Operations Management strategy and analysis,9th Edition, Pearson Education / Prencice Hall of India, 2007.

References:

1. Everett.Adam, Jr. and Ronald J. Elbert, Production and Operations Management Concepts, Models and Behaviour, 5th Edition, PHI, 2003.
2. Edward M. Knod and Richard J. Schonberger, Operations Management meeting customers demands, McGraw hill international, 2001.
3. KanishkaBedi, Production and Operations Management, Oxford University Press, 2005
- 4.Chary, S.N, Production and Operations Management, Tata McGrawhill,2nd Edition, 2003.
5. Heizer Jay & Render Barry, Operations Management, Pearson Education, 8th Edition, 2007.

Course Objective:

- To introduce the cyber world and cyber law in general
- To explain about the various facets of cyber crimes
- To enhance the understanding of problems arising out of online transactions and provoke them to find solutions
- To clarify the Intellectual Property issues in the cyber space and the growth and development of the law in this regard, To educate about the regulation of cyber space at national and international level.

Course Outcome:

CO – 1: To facilitate understand & critical understanding about Cybercrimes, Ethical Hacking, cyber security, forensics and cyber laws

CO – 2: To Exploration of the legal and policy developments in various countries for cyber space

CO – 3: To provide in-depth knowledge of Information Technology Act, 2000 including Information Technology Amendment Act, 2008

CO – 4: To understand e-Governance, Electronic Contracts, e-Banking & Secure electronic records

CO – 5: To share knowledge of the regulation of cyber space at national and international level

CO – 6: To know about the different type of cyber-crimes avail in the present scenario

CO – 7: To be acquainted with the e governance framework in our country.

CO – 8: To get aware of cyber law and use of computer, web technologies in the secured way

CO – 9: To acquaint the students with various dispute resolution available.

CO – 10: To know where to begin if you are presented with an employment law grievance

Unit I

Introduction, Computers and its Impact in Society, Overview of Computer and Web Technology, Need for Cyber Law, Cyber Jurisprudence at International and Indian Level

Unit II

Introduction to e-governance, techniques, e-governance in India, Challenges faced, Indian theory of Public administration

Unit III

Cyber Law - International Perspectives, UN & International Telecommunication Union (ITU) Initiatives, Council of Europe - Budapest Convention on Cybercrime, Asia-Pacific Economic Cooperation (APEC), Organization for Economic Co-operation and Development (OECD), World Bank, Commonwealth of Nations

Unit IV

Cyber Crimes & Legal Framework, Cyber Crimes against Individuals, Institution and State, Hacking, Digital Forgery, Cyber Stalking/Harassment, Cyber Pornography, Identity Theft & Fraud, Cyber terrorism, Cyber Defamation, Different offences under IT Act, 2000

Unit V

Dispute Resolution in Cyberspace 1. Concept of Jurisdiction 2. Indian Context of Jurisdiction and IT Act, 2000. 3. International Law and Jurisdictional Issues in Cyberspace. 4. Dispute Resolutions

References:

1. S. R. Bhansali, Information Technology Act, 2000, University Book House Pvt. Ltd., Jaipur (2003).
2. Vasu Deva, Cyber Crimes and Law Enforcement, Commonwealth Publishers, New Delhi, (2003)
3. Sudhir Naib, The Information Technology Act, 2005: A Handbook, OUP, New York, (2011)
4. Verma S, K, Mittal Raman, Legal Dimensions of Cyber Space, Indian Law Institute, New Delhi, (2004)

Outcomes:

- To understand the basic elements of managerial economics aspects of firm and SSI
- To understand the role of manager, so as to manage or organize FOP
- To forecast demand for a product
- To know what to produce, where to, when to, how to, for whom to
- To frame policy for production to minimize the cost and maximum the profit
- To construct the cost function
- To understand the basics of market structures and their environment
- To prepare capital budget
- To know the basic theories related to business practices
- To enable them to take a decision with given business situation in order to make effective management
- To prepare a case study report on demand prediction for a product and capital budget and cost analysis.

Unit 1

Introduction to Managerial Economics; The roles of the firm and the House hold, Decision Making in the Household, Consumer Choice, Theory of Demand; its Determination, Estimation and Forecasting

Unit II

Decision Making in the Firm , Production, Cost, Supply : its Determination and Derivation, Equilibrium in Different Market Structures

Unit III

Competitive markets- Equilibrium in the short run and long-run, Monopoly equilibrium and pricing practices of firms with market power, Oligopoly: Strategic interactions and its game theoretic analysis

Unit IV

Analysis of the Markets for Factor Inputs, The Economics of Information, The problem of Adverse Selection z Moral Hazard problem, Market Failure z Externalities, Public Goods

Unit V

Finance for Development, Trade and Development, State and the Market, Privatisation and Regulation, Institutions and Growth

References

1. YogeshMaheswari, Managerial Economics, Phi Learning, Newdelhi, 2005 Gupta G.S.,
2. Managerial Economics, Tata Mcgraw-Hill, New Delhi Moyer &Harris,
3. Anagerial Economics, Cengage Learning, Newdelhi, 2005 Geetika, Ghosh&Choudhury,
4. Managerial Economics, Tata Mcgrawhill, Newdelhi, 2011

16GMBN43

BUSINESS STRATERGY

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OBJECTIVES

1. To study the various perspectives and concepts in the field of Strategic Management.
2. To achieve conceptual clarity.
3. To develop skills for applying these concepts to the solution of business problems.

Course outcome:

CO -1: To analyze the main structural features of an industry and develop strategies that position the firm most favorably in relation to competition.

CO -2: To recognize the different stages of industry evolution and recommend strategies appropriate to each stage.

CO -3: To appraise the resources and capabilities of the firm in terms of their ability to confer sustainable competitive advantage.

CO -4: To demonstrate understanding of the concept of competitive advantage and its sources and the ability to recognize it in real-world scenarios.

CO -5: To distinguish the two primary types of competitive advantage: cost and differentiation and formulate strategies to create a cost and/or a differentiation advantage.

CO -6: To analyze dynamics in competitive rivalry including competitive action and response, and first-mover advantage.

CO -7: To formulate strategies for exploiting international business opportunities including foreign entry strategies and international location of production.

CO -8: To explain how to formulate strategies that leverage a firm's core competencies.

CO -9: To demonstrate the ability to think critically in relation to a particular problem, situation or strategic decision through real-world scenarios.

CO -10: To recognize strategic decisions that present ethical challenges and make appropriate recommendations for ethical decision-making.

UNIT - I. Introduction to Strategic Management **12**

The Importance of Strategic Management - Schools of thought in Strategic Management - Strategy Content, Process and Roles -The Fit Concept and the Configurational Perspective in Strategic Management - Dimensions and Levels of Strategy

UNIT – II Competitive Strategy **12**

Five Forces that Shape Strategy - Generic Strategies - Generic Strategies and the Value Chain- Mission and business definition - Environmental Scanning- Analyzing industry and competition - internal appraisal - concepts, techniques and cases.

UNIT –III Corporate Strategy **12**

The Motive for Diversification - Related and Unrelated Diversification - Business Portfolio Analysis Strategy formulation- Types of strategies - Integration, intensive, diversification, and defensive strategies - strategic analysis -comparative cost analysis, operating and financial analysis.

UNIT- IV Strategy Implementation **12**

Structure, Systems and People - The 7S Framework Strategy Choice-criteria and process- Routes for executing strategy. Strategy implementation - Role of organizational structure, Culture and Leadership, Strategy and Social Responsibility.

UNIT -V Recent Advances **12**

Core Competence as the Root of Competitive Advantage - Business Processes and Capabilities-based Approach to Strategy .Strategy review, evaluation and control- Auditing - Using computers to evaluate strategies; strategy for entrepreneurial ventures and small business. Strategy for non-profit organizations.

Reference Books:-

1. Henry and Quinn, J.B. The Strategy Process, Prentice-Hall, Harlow, 1988..
- 2.Ghemawat, Pankaj (Spring 2002). "Competition and Business Strategy in Historical Perspective".

3. Hill, Charles W.L., Gareth R. Jones, Strategic Management Theory: An Integrated Approach, Cengage Learning, 10th edition 2012
- 4 Lamb, Robert, Boyden Competitive strategic management, Englewood Cliffs, NJ: Prentice-Hall, 1984
5. Drucker, Peter The Practice of Management, Harper and Row, New York, 1954.
6. Markides, Constantinos “A dynamic view of strategy” Sloan Management Review, vol 40, spring 1999,
7. Moncrieff, J. “Is strategy making a difference?” Long Range Planning Review, vol 32spring 1999.

16GMBN33 FINANCIAL PLANNING, DATA MODELLING AND MINING 4003

COURSE OBJECTIVES:

- To teach students the techniques and tools useful for financial planning and analysis in today’s financial and economic scenario.
- To improve students’ technical and interpersonal skills through the use of case studies.
- To engender the required analytical knowledge and skills in order to develop proficient financial planners.
- To nurture and groom the aspirants in order to match the requirement of the financial industry.
- To know how to derive meaning from huge volume of data and information
- To understand how knowledge discovering process is used in business decision making.

Course Outcomes:

- CO1 - Provide solutions assessments and validation to a broad range of financial securities concepts including t-bills, bonds, debentures, common and preferred shares, equities and financial derivatives.
- CO2 - Document, manage, understand and communicate all aspects of the personal financial process and its components and steps.
- CO3 - Use a financial calculator in determining the time value of money.
- CO4 - Understand fundamental and technical analysis and discuss investment theory and financial economics and strategic decision making through planning.

- CO5 - Understand data mining principles and techniques: Introduce DM as a cutting edge business
- CO6 - Intelligence method and acquaint the students with the DM techniques for building competitive advantage through proactive analysis, predictive modelling, and identifying new trends and behaviours.
- CO7 - Learning how to gather and analyze large sets of data to gain useful business understanding.
- CO8 - Learning how to produce a quantitative analysis report/memo with the necessary information to make decisions.
- CO9 - Describing and demonstrating basic data mining algorithms, methods, and tools
- CO10 - Identifying business applications of data mining

UNIT 1: Introduction to financial planning

Financial planning – meaning, Scope, Objectives and Characteristics – Factors influencing financial planning – Essentials, Significance and limitations of financial planning – Estimation of capital requirement – Over capitalization and under capitalization – Time value of money.

UNIT 2: Financial planning system and model

Steps in financial planning - Principles of financial plan – Risk return trade off – Financial planning system in a firm – Strategic decision making and planning –Strategic financial planning – Constructing a financial model.

UNIT 3: Data mining

Data mining – Evolution – Steps in data mining – Data warehouse – Techniques in data mining – Applications targeted in data mining – Major issues –Data pre-processing – Data warehousing – Difference between traditional database and data warehouse –Multi dimensional data model – Market based analysis – Classification and prediction of data

UNIT 4: Decision tree and Cluster analysis

Decision tree - Cluster analysis – Time series data mining - Graph mining – Social network analysis – Multi relational data mining – Spatial data mining – Multimedia data mining – Audi and video and text data mining – Web usage mining – Applications of data mining – Trends in data mining.

UNIT 5:

Data Modelling – meaning and concept – Data modelling objects – data modelling development cycle – Steps to create a data model – Data modeller role – model versioning – modelling standards – Data modelling reports – data modelling relationships – types.

REFERENCES:

1. General Principles of Financial Planning Textbook, John Keir
2. W.H.Inmon, Building the Data Warehouse, fourth edition Wiley India pvt.Ltd. 2005.
3. Ralph Kimball and Richard Merz, The data warehouse toolkit, John Wiley, 2005.
4. Michel Berry and Gordon Linoff, Mastering Data mining, John Wiley and Sons Inc 2nd Edition, 2011
5. Michel Berry and Gordon Linoff, Data mining techniques for Marketing, Sales and Customer support, John Wiley, 2011
6. G. K. Gupta, Introduction to Data mining with Case Studies, Prentice hall of India, 2011