School of Management
Course Structure and Syllabi
for
B. Tech. Integrated (Dual degree)

Academic Programmes
July, 2013
### Course Structure

<table>
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<tr>
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JECRC UNIVERSITY
School of Management
(B Tech Integrated) Dual Degree

Teaching Scheme

Semester IX

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SEMESTER I

**M11001 Principles and Practices of Management**

**Unit-I:**

**Unit-II:**
Fundamentals of Planning - Objectives, Strategies, Policies, Decision making, Strategic organizing design, line and staff authority and decentralization

**Unit-III:**
Direction-concept, Leadership- Meaning and Importance, transitions in leadership theories, trait theories, behavioral theories, contingency theories, leadership styles and skills, managerial culture and leadership. Coordination. Control- concept, nature and purpose, control technique, control of overall performance, span of control.
SEMESTER I

**M11004 Organisational Behavior**

**Unit I:**
The nature and functions of an organization; meaning and systematic study of O.B; contribution of behavioral sciences to O.B.; developing contingency model of O.B; OB in a global perspective; Challenges and opportunities in OB. Nature of human behavior; Personality; meaning; theories and determinants;

**Unit II:** Values, attitudes and job satisfaction; Perception – Meaning and definition, Perceptual process, perceptual errors. Motivation, early theories of motivation; contemporary theories of motivation; an integrative model of motivation; Motivational techniques for Indian managers.

**Unit III:**
Formation, classification, stages and group dynamics; Group decision making; teams and team work; transactional analysis; Conflict and stress management: meaning, process, functional and dysfunctional conflict, conflict handling, nature causes and consequences of stress. Management of change: concept, Lewin’s stages of change, forces of change, resistance to change, and managing planned change.
SEMESTER II

**M12001 Information Technology for Management**

**Unit I:**

**Unit II:**

**Unit III:**
SEMESTER II

**M12006 Business Communication and Personality Developments**

**Unit I:**
Communication - Meaning, importance, process, types, effective and efficient communication, barriers in communication, Communication effectiveness, Formal and informal communication. Interpersonal skills and rapport. The art of listening. Role expectation/role ambiguity and conflict.

**Unit II:**
Organisational strategies for effective communication, written communication. Presentations, use of audio visual aids. Managerial report writing.

**Unit III:**
What Makes A Winning Personality, Building Self – Esteem and Self – Confidence, Indicators of a Positive & negative Self – Image, Looking Great and Attractive, Eye Contact and body Language, Dressing and Make – up, Physical Fitness, Social Graces and Table, Manners in Conversations, Developing a Win – Win Attitude, Positive Strokes, The Magic of Affirmations, Becoming a Pro – Active and Responsible Adult, Ego States and Personality, Difference Between Reactive and Pro – active Response, Discipline in Problem Solving
M11003 Managerial Accounting in Management

Unit-I:

Unit-II:

Unit-III:

Unit-IV:
Budgetary control-meaning, need, objectives, essentials of budgeting, different types of budgets; Variance Analysis- Classification of variances, Material cost, Labour cost, Overhead cost variances. Causes and Disposition of variances. Cases and Problems
M11005 Marketing Management

Unit I:

Unit II:

Unit III:
Implementation and Control. The marketing organization- alternative organization structures; the concept of product management. Administration of the marketing programme: sales forecasting; marketing and sales budgeting; sales management; management of sales force. Evaluation of marketing performance; sales analysis; control of marketing effort; marketing audit.
M12004 Management Research Methodology

Unit I:

Unit II:
Sampling Decisions, Probability and Sampling. Introduction to probability theory; Measures of central tendency and dispersion. Testing hypotheses, Parametric one sample test and two sample tests, Level of Significance, Tables and Graphs, and using software for analysis Grouping and displaying data to convey meaning.

Unit III:
Non-Parametric methods - the sign test for paired data, the rank sums test. The mann-whitney U test, chi-square test and analysis of variance, Simple regression and correlation, the one sample Runs test, rank correlation. Attitude Measurement- Motivational Research, Focus Group; Scaling Techniques- Socio Metric and Rating Scale, Scalograms, Internal Consistency Scales. Report Writing Organization. Presentation, Bibliography and References.
M12005 Human Resources Management

Unit I:

Unit II:

Unit III:
SEMESTER V

M11006 Quantitative Methods in Management

Unit I
Role of quantitative methods and operations research for managerial decision making and support. Role of mathematical models in problem formulation and solving. Structure of decisions, statistical decision theory; decision making under uncertainty, risk, certainty. Decision Trees; method, Game theory applications.

Unit II
Simplex technique; transportation, assignment. Mathematical Programming models formulation and applications. Linear Programming- graphical problems.

Unit III
PERT and CPM. Queuing theory- M/M/1 and M/M/n model. Monte Carlo System Simulation concepts and applications. Case Study applications and use of OR software packages.
SEMESTER VI

M12002 Advanced Financial Management

Unit I:

Unit II:

Unit III:
M12003 Production and Operations Management

Unit I:

Unit II:

Unit III:
Concept of total Quality (TQ). International Quality Certification and other standards and their applicability in design manufacturing Humanistic and Marketing Aspects of TQ. Total Quality of services. Total Quality and safety. ERP and Business process engineering maintenance Management, project management.
SEMESTER VII

**M11002 Managerial Economics**

**Unit-I:**
Role of Economic Analysis in managerial decisions. Basic concepts; Objectives of Business Firms and profit policies. Theories of Profit; Demand analysis and Demand Management w.r.t. domestic and world markets. Determinants, estimation and managerial uses of elasticities of demand. Demand forecasting. Supply function and market equilibrium analysis.

**Unit-II:**
Cost concepts; cost function; Break-Even Analysis; Equilibrium Analysis of firm in an open economy. Pricing and output under different market situations. Recent advances in Pricing theory and practices. Production analysis and Input. Demand Functions. Project appraisal techniques. Social cost benefit analysis. Investment decisions under risk and uncertainty.

**Unit-III:**

**M11009 Empirical studies**

In this paper, the student with the help of corporate mentors will identify some problem of a specific industry and will work out research methodology and analysis of that problem with the help of faculty mentors. The student will prepare a report under guidance of faculty members. There will be regular internal assessments by the concerned faculty members. The student will submit written report and make an oral presentation before a panel of internal examiners (Dean, Management of the university or his or her nominee and faculty members).
M11008 Business Environment

Unit I:
Business Environment – Nature, Concept and Significance of Internal environment. Management of organisational resources for developing effective internal organizational environment, introducing organisational change when this equilibrium is found. External Environment - nature and significance - Economic, Socio- Cultural, Political and Technological factors influencing

Unit II:

Unit III:

M12007 Contemporary issues and viva voce

In this paper, the faculty members will assign contemporary issues concerning with Indian Corporate sector like, merger & acquisition, current economic issues, global interface, stock market developments, new HR initiatives, recent trends in marketing trends etc, to the students. The student will prepare seminar under guidance of faculty members. There will be regular internal assessments by the concerned faculty members. The student will submit written report and make an oral presentation before a panel of internal examiners (Dean, Management of the university or his or her nominee and faculty members).
M13001 Strategic Management and Social Capital

Unit I:

Unit II:
Competitive strategy and competitive advantage: Industry and competitive analysis, strategy and competitive advantage, Principles of Competitive Advantage—Identifying Value Activities, Competitive Scope and the Value Chain.

Unit III:
Social Capital—Social theory and social structure, Concept and characteristics, concept of bonding—bridging & linking: Putnam’s theory, A paradigm for social capital, Leveraging social capital in Business set-up & NGO’s, Social capital in the organisation, Social capital outside the organisation, Social capital, exchange and contribution, Social capital, intellectual capital and the organizational advantage.
M13002 Business Law

Unit I:

Unit II:

Unit III:
Negotiable Instruments act. Definition and characteristic of Negotiable instrument. Liabilities of Parties to Negotiable Instruments. Brief exposure to Company Law including incorporation of a company - objects, registration, article of association, raising capital from public, company management and reconstruction, amalgamation and winding up.
SEMESTER IX

M13003 Summer Training Project

The summer training project report Evaluation and presentation will be done by internal and external examiners. There will be no internal assessment. The student will submit written report and make an oral presentation before a panel of internal examiner (Dean, management of the university or his or her nominee) and external examiner (to be appointed by the Dean, Management of the university). The assessment of the report and its presentation will be jointly done by the internal and external examiner.
ELECTIVES

Finance

M13101 Security Analysis and Portfolio Management

Unit I:

Unit II:

Unit III:
M13102 Indian Financial System

Unit I:

Unit II:

Unit III:
Mutual Funds, Insurance and others. Investment Policy and performance appraisal of Unit Trust of India, Insurance Industry , IRDA Insurance Regulator . New Developments such as financial instruments, Private foreign investments, case studies and problems.
M13103 Financial Decision Making

Unit I:

Unit II:

Unit III:
Strategic decisions regarding financial services- Valuation of exchange rate mechanism, strategic decisions regarding securitization factoring and forfeiting, value creation and value based financial strategy. Analysis of enterprise – concept of valuation EVA, MVA, enterprise value. Analysis of corporate financial models.
**M13104 International Financial Management**

**Unit I:**

**Unit II:**

**Unit III:**
Unit I:
The Sales Management - Introduction to sales management and sales organization, Sales function & policies, Personal selling - nature, scope & objectives, Formulating Personal selling strategy. Planning the Sales Effort - Sales planning and Budgeting, Estimating Market Potential and Sales forecasting, Setting the sales territory & quotas, Sales and cost Analysis.

Unit II:
Organizing and Directing the sales Force - Recurring and training sales personnel, Designing & compensating sales Personnel, Motivating and Leading the sales force, Evaluating sales force performance. Distribution Management - Managing marketing logistics & channels,

Unit III:
M13106 Product Management and Brand Building

**Unit I:**
The product in corporate life, Corporate and product objective, product management role, responsibility, scope and functions, product strategy and policy, optimum product pattern/line range.

**Unit II:**

**Unit III:**
Organization for Product Management, Marketing manager product manager-brand manager concept, approaches and organizational role, product manager- functions and tasks-tools and techniques. Brand extensions, acquisitions, Brand value, Consumer insight.
M13107 Advertising Management

Unit I:
Mass communication theory and practices, marketing and promotion mix interrelationship and interdependence advertising. Sales Promotion, Publicity and Public Relations- Scope, Objectives, activities and creative role. Advertising, objectives tasks and process, market segmentation and target audience- Message and copy development. Mass media, selection, planning, budgeting and scheduling. Integrated programme and budget planning. Implementing the programme, coordination and control.

Unit II:
Advertising Agencies in India, their services and terms, advertisement campaign development, Agency selection and appointment; Agency Organization and operation, Getting the best of the agency services. Analysis of effectiveness of advertisement and promotional campaign.

Unit III:
Why and when sales promotion support, Sales promotion activities; Consumer Oriented-Sales channel Oriented-Sales staff oriented, Planning, budgeting, implementing and controlling campaigns. Module III: Valuation and measurement of advertising and sales promotion effectiveness, Company organization for advertising: sales manager, Sales Promotion Manager, Market Development Manager- Role of Tasks, advertising ethics, economics and social relevance. The Public Relations Activities, Public relations and mass media.
Unit I:

Unit II:

Unit III:
Export credit system pre shipment and post-shipment, finance, medium and long term credit financing; ECGC; Transportation and shipment of cargo; Marine insurance of cargo; procedure for claiming rebate of excise duty. Import replenishment licensing procedures. Generalized scheme of preferences. Sourcing and Transfer pricing mechanism. WTO related issues and IPR related issues impacting global trade.
**Human resource**

*M13109 Organizational Development and Management of Change*

**Unit I:**

**Unit II:**

**Unit III:**
M13110 Sourcing, Training and Development

Unit I:

Unit II:
Learning: Principles Of Learning, Theories of Learning, learning process; learning styles, Andragogy .Training – concept and rationale; training process of stakeholders in training programme; Organization and Management of training function; Training needs assessment-organization analysis, operational analysis, person analysis; competency mapping. Designing the training programme: process of learning in training programme- attributed and factors influencing; training climate and pedagogy; developing training modules;

Unit III:
Training aids. Training methods and techniques, Trainers. Budgeting Of Training, Evaluation of training-need for evaluation, principles of evaluation, criteria and approaches; return on investment in training, process of calculating ROI in training; emerging trends in training and development; new perspectives on training –cross culture training, e-learning
M13111 Performance Management and Retention Strategies

Unit I:

Unit II:

Unit III:
Competency Analysis and Competency Mapping - Meaning of competency, Competency Analysis and Approaches to competency Analysis, Competency mapping ; Need development and assessment of competency models, Competency and performance, Tools to identify the competencies of the employees.
**M13112 Strategic Human Resource Management**

**Unit I:**
Understanding Strategic HRM: Traditional vs. strategic HR, Typology of HR activities, “best fit” approach vs. “best practice” approach, HR strategy and the role of national context, sectoral context, and organizational context on HR strategy and practices, investment perspective of human resources. Aligning HR systems with business strategy:

**Unit II:**
Sustained competitive advantage - how HR adds value to the firm - HR as scarce resource – non-substitutable resource, linking HRM practices to organizational outcomes – assessing and reducing costs – behavioral impact of HR practices – marginal utility models – auditing HR practices and department, linking strategy to HRM practices – corporate HR philosophy and company wide HR standards – HRM leading strategy formulation, alternative HR systems – universalistic – contingency – on figurational, congruence and integrated HR systems.

**Unit III:**

**Unit IV:**
Accounting for HRM – purpose of measuring cost and benefits of HRM – approaches to HRM performances – employee wastage and turnover rates – cost of absenteeism – measuring human resource cost.HR Score card: HR as a strategic partner and measurement challenge, seven step model for implementing HR strategic role, creating an HR score card, measuring HR alignment – two dimensions of alignment – assessing internal and external alignment – systems alignment map.
Information Technology

M13113 Database Management System

Unit-I
Introduction to Database: Organization of Database; Components of Database Management Systems; Database & Database Users, Database Concepts & Architecture, Data Modeling Using the Entity-Relationship Approach, Record Storage & Primary File Organizations, Index Structures for Files.

Data Base Models: Entity-Relationship Model: Components of ER Model, ER Modeling Symbols, Super Class and Sub class types; Network Data Model; Hierarchy Data Model; Relational Data Model; Semantic Data Model; Advantages of DBMS.

Unit-II
Database Normalization: Keys, Relationships, First Normal Form., Functional dependencies, Second Normal form, Third Normal Form, Boyce-Coded Normal form, Case study
Database Design: Normalization for Relational Databases, Decomposition of Relation Schemes, Introduction to Data Mining & Data Warehousing, Knowledge Extraction through Data Mining.

Unit-III
Introduction to SQL: SQL data types and literals, Types of SQL commands, SQL Operators and their precedence, Tables-Create, Alter, Rename, Drop, Insert, Update, Delete, Queries and Sub-queries, Arithmetic Operators, Range Searching, Pattern Matching, Viewing sorted Data, Joins, Unions, Intersection, Minus. Aggregate functions, Group Functions, String Functions, Conversion Functions, Security Management using grant, revoke and views
Advanced Data Models & Emerging Trends: Advanced Data Modeling Concepts, Object-Oriented Databases, Distributed Databases & Client Server Architecture, XML.
M13114 System Analysis and Design

Unit-I
Introduction: System Definition and concepts, System Environments and Boundaries. Real-time and distributed systems, Basic principles of successful systems, Structured System Analysis and Design

Systems Analyst: Role and Need of Systems Analyst. Qualifications and responsibilities, System Analysis as a Profession


Unit-II


Unit-III
System Implementation and Maintenance: Planning considerations, Conversion methods, procedures and controls, System acceptance criteria, System Evaluation and Performance and Validation, Preparing User Manual, Maintenance Activities and Issues
M13115 Enterprise Resource Planning (ERP)

Unit-I
ERP Implementation :ERP Implementation Lifecycle:Implementation Methodology Evaluation and selection of ERP package, Project planning, Implementation team training & testing, End user training & Going Live, Post Evaluation & Maintenance

Unit-II
The ERP Market :ERP Market Place, SAP AG, Peoplesoft, Baan, JD Edwards, Oracle, QAD, SSA

Unit-III
ERP Case Studies: Post implementation review of ERP Packages in Manufacturing, Services, and other Organizations
M13116 Business Process Reengineering

Unit-I
Historical background: Nature, significance and rationale of business process reengineering (BPR), Fundamentals of BPR.


Unit-II
Major issues in process redesign: Business vision and process objectives, Processes to be redesigned, measuring existing processes, Role of information technology (IT) and identifying IT levers.
Designing and building a prototype of the new process: BPR phases, Relationship between BPR phases. Typical BPR activities within phases: Change management, Performance management, and programme management.

Unit-III
BPR and Information Technology Process-People View and Perspectives-Empowering People through IT-Managing Change in the Global Environment-BPR Rediscovering Indian Paradigm-Need of Reengineering-Case Studies
BPR and continuous improvement: Co-ordination and complementary efforts, IT capabilities and their organizational impacts, Implementation of BPR, Stages of implementation and critical aspects, Case studies on BPR.
Total Quality Management (TQM) - Concept, Systems model of Quality, Deming's approach, TQM as a business Strategy, BPR vs TQM
SEMESTER IX

Production and operations

M13117 Materials management

Unit I


Unit II


Unit III

M13118 Total quality management

Unit I
Definition of Quality, Dimensions of Quality, Quality Planning, Quality costs - Analysis Techniques for Quality Costs, Basic concepts of Total Quality Management, Historical Review, Principles of TQM, Leadership – Concepts, Role of Senior Management, Quality Council, Quality Statements, Strategic Planning, Deming Philosophy, Barriers to TQM Implementation.

Unit II

Unit III
The seven tools of quality, Statistical Fundamentals – Measures of central Tendency and Dispersion, Population and Sample, Normal Curve, Control Charts for variables and attributes, Process capability, Concept of six sigma, New seven Management tools.
SEMESTER IX

**M13119 Operation Research**

**Unit I**

**Unit II**

**Unit III**

**Unit IV**
INVENTORY : Introduction – Single item – Deterministic models – Purchase inventory models with one price break and multiple price breaks – shortages are not allowed – Stochastic models – demand may be discrete variable or continuous variable – Instantaneous production. Instantaneous demand and continuous demand and no set up cost. SIMULATION: Definition – Types of simulation models – phases of simulation– applications of simulation – Inventory and Queuing problems – Advantages and Disadvantages – Simulation Languages.
SEMESTER IX

M13120 Supply chain management

Unit I

Unit II

Unit III

Unit IV
M14001 Managerial Ethics

**Unit I:**

**Unit II:**
Ethical Responsibilities. Ethical responsibilities of economic agents: role obligations, obligation to shareholder, rights and, obligations to customers, obligations to pay taxes. Environmental protection. Corporate accountability, Ethical conflicts, concern for the locality, Attitude to labour. Ethics and Government policies and laws.

**Unit III:**
M14002 Project Management

Unit I
Introduction to Project Management: Definition, functions, evolution of Project Management, classification of projects, Project management in different environments. The Project Management Systems, Methodologies & Systems Development Cycle: Systems approach, systems analysis, systems development, project feasibility, project life cycle, project appraisal, project contracting, the phases of system development life cycle.

Unit II
Project Feasibility Study: Developing a project plan, market and technical analysis, financial analysis evaluation of project proposals, risk analysis, sensitivity analysis, and social cost benefit analysis. Project Planning: Planning fundamentals, project master plan, work breakdown structure & other tools of project planning, work packages project organization structures & responsibilities, responsibility matrix.

Unit III

Unit IV
Project Control: Information monitoring, internal & external project control, cost accounting systems for project control, control process, performance analysis, variance limits, and issues in project control. Project Management Information System: Computer based tools, features of PMIS, using project management software, (MS Projects) Project Evaluation, Reporting & Termination: Project reviews & reporting, closing the contract.
M14003 Project Study

The project is real life short term corporate study. The candidate will be allotted the project by the faculty of the institute in consultation with the Dean of the university. There will be external examiner to be appointed by the Dean of the university. The student will submit written report and make an oral presentation before a panel of internal examiner and external examiner. THE assessment of the report and its presentation will be jointly done by the internal and external examiner.

The Candidate shall be required to submit a Project Study report based on primary data. The project will be submitted before, the end of IV Semester. The Project Report will include one chapter on the Organisation concerning which the research has been selected: The chapter on Organisation will deal with the brief history of the organization, Organizational structure, the performance of the organization, products/services and the overall performance and problems of the organization. Other chapters’ will be related to the research problem of the project report. The average size of the project report ordinarily will be - 125 to 150 typed on thesis size paper, in I.5 space, Arial, and 11 size font. The report should be well documented and supported by relevant tables, charts, diagrams and bibliography.

(Project study report has to be submitted in two copies-one to the university and one for student, in a standard format which has been provided on the website “format of Project study report”)
Electives

Finance

M14101 Working Capital Management

Unit I:

Unit II:

Unit III:
M14102 Financial Derivatives

Unit I:

Unit II:

Unit III:
Unit I
The objective of the course is to provide conceptual understanding on the Rural Marketing with special reference to Indian context and develop skills required for planning of Rural Products. Rural Marketing: Characteristics and Dimensions of Rural Markets - Rural Market Profile - Rural Market in India - Size and Scope - Environment and Emerging Profile of Rural Markets in India - Constraints in Rural Marketing and strategy to overcome the constraints.

Unit II

Unit III
Channels of Distribution: Distribution pattern and methods in rural markets - Special characteristics of rural channels - Channel management in rural markets - Managing physical distribution in rural markets - Storage, warehousing and transportation. Marketing Communication in Rural Markets: Promotion as a component in marketing communication - Advertising and sales promotion for rural markets - Major challenges in Media planning - Sales force management in rural markets - Selecting the Media Mix - Evaluation of promotional activities.
M14105 Retail management

Unit I
Introduction to Retail marketing – retail environment – the growing importance of retail industry. Consumer behavior in the retail context - buying decision process – its implication for retail management.

Unit II

Unit III
Consumerism and ethics in retailing – international retail structures – future of retailing
M14106 Consumer Behavior and Market Research

Unit I
Identifying and classifying customers, buying behavior, attitude of consumer, consumer perception. Factors influencing buying behavior; Reference groups, opinion leaders, social influences. Consumer behavior process; Understanding consumer motivation, personality and self concept, learning, memory.

Unit II
Research concepts; exploratory, descriptive and conclusive research. The marketing decision making process and the need of different types of research. Types of marketing problems and type of marketing research activity. Sources of data; use and appraisal of existing information.

Unit III
Information from respondents, sampling design, scaling techniques and questionnaire design, interviewing, mail surveys. Information from experiment, experimental design for marketing, Motivational research, Advertising research, Analysis and reporting. Module III: Marketing Information Systems, Structure and design, its role in planning and control; the place of marketing research.
SEMESTER X

Human Resource Management

M14107 Industrial Relations and Labor Laws

Unit I:
Introduction of industrial relation and a systematic view of personnel. Labour Relations.
Introduction to Indian Trade Unionism. Industrial relations and conflict in industries.

Unit II:
Role of Industrial Legislation. Introduction of Industrial Dispute Act. Different jurisdiction of
Labour Court. Issues in recognition of unions. Tribunal and national tribunal. Strategies for
resolving Industrial Conflict, Collective bargaining. Works committee and joint consultative
committee, Negotiation process.

Unit III:
Influence of Government regulations. Third party intervention in industrial disputes. Rules of
relations and economic development.
M14108 Knowledge Management

Unit I
Introduction to Knowledge Management: Definition, evolution, need, drivers, scope, approaches in Organizations, strategies in organizations, components and functions, understanding knowledge - difference between data, information and knowledge, various types of knowledge viz. tacit and explicit, consequences of knowledge types on managing knowledge; factors Influencing KM, knowledge sources, and documentation. Learning organization: Concept. five components of learning organization, Process of building Learning Organization, Importance in current scenario.

Unit II
Essentials Of Knowledge Management, knowledge creation process, knowledge management techniques, Knowledge creation process, systems and tools, organizational knowledge management: architecture and implementation strategies, building the knowledge corporation and implementing knowledge management in organization. Designing Strategy that encompasses a Knowledge Advantage, Knowledge management and culture.

Unit III
Knowledge management system life cycle, managing knowledge workers, - knowledge audit, and knowledge management practices in organizations. KM: the Indian experience: Discussion of Organization experimenting with KM & Problems Indian organization face with respect to KM Futuristic KM: Knowledge Engineering, Theory of Computation, Data Structure.
M14109 Compensation Management

Unit I
Job Evaluation: Introduction and basic concept, Methods; Labour Market : Concept, Broad Types of Labour Market ; National Wage Policy : Objectives, Concepts; Wage boards and Pay Commissions, Laws related to wade administration in brief .compensation- Concept, Wage concepts, Wage theories , objectives, nature of compensation, types of compensations, compensation responsibilities, Compensations Philosophies, compensation approaches, decision about compensation, Role, Economic and Behavioural issues . Managing Compensation:

Unit II
Corporate Policy: Wage Determination, Pay Grade, and understanding inter and intra-industry compensation differentials: Concept of Internal Equity, External Equity: Wage Surveys, Designing pay structure and administrating compensation package; understanding different components of compensation package like fringe benefits, incentives and retirement plans; Profit Sharing plans, Stock Options, ESOPs, and pay for performance plans. Dearness Allowance : Computation of CPI – Exercise; Pay Incentives – Concept; different kinds of wage incentives plans and their application ; Pay for performance, competency based pay ; Bonus : Profit Bonus, Evolution of the Concept, Method of Determining Bonus;

Unit III
Fringe Benefits: Underlying Principles, Different Kinds of Fringe Benefits . Concept of human capital and its implications for compensating human resources, compensation of special group: Corporate Directors, Chief Executives, Senior Managers; components of executive compensation package; compensation of professionals and knowledge workers, R&D staff, sales compensation plan, international compensation. Calculation of Income Tax implications while calculating the income of an individual - Cost to the Company - Valuation of Perquisites - Taxability of various components of salary and wages; Fixation of Tax Liability - Tax deduction at source - Deductions and Tax Rebates to be considered while deciding tax deducted at source - Tax Deduction Certificates.
Information technology

MI4110 Business Intelligence and Data Mining

Unit-I
Data Warehousing: Introduction and General Principle, On-line Transaction Processing (OLTP), Data Warehouse (DW) Architecture Fundamentals, Data Mart, Approaches to Architecture, Top-down, Centralized, Bottom-up, Architected

Data Warehouse Process: Technical and Business Meta Data, Meta Data Process, Data Warehouse Design, Star and Snowflake Schemas, Online Analytical Processing (OLAP) Architecture, Multidimensional Database (MDD), Data Cubes, ROLAP Data Model, MOLAP Data Model, Logical Models for Multidimensional Information, Data Warehouse and Business Strategy

Unit-II
Data Mining (DM): Fundamental Concepts, Architectural Aspects of Data Mining, Data Mining Techniques, Data Mining Issues and Challenges.

Data Mining and Business Analytics: Data Mining Process and Methodology, SAS SEMMA (Sample, Explore, Modify, Model Assess) Process and Methodology for Data Mining, Data Mining for Process Improvement, Data Mining as a Research Tool, Data Mining for Marketing, Data Mining for Customer Relationship Management,

Association Rules: Introduction and Overview, Discovering Association Rules, A Priori Algorithm, Partition Algorithm, Incremental Algorithm, Border Algorithm, Association Rules with item Constraints

Unit-III
Classification and Clustering: Introduction, Clustering Paradigms, Partitioning Algorithm, K-means Clustering Algorithm, Hierarchical Clustering, Fuzzy c-means Algorithm, Categorical Clustering Algorithm

Data Mining methods, tools and techniques: Regression, decision trees, neural networks, clustering, market basket analysis, association rules, fuzzy inference systems, genetic algorithms, and rough sets.

Advanced Mining Techniques: Web Mining (Web content Mining, Web usage Mining, Web Structure Mining) and Mining for e-Business, Text Mining, etc.
M14111 IT Strategy and E-business

Unit-I
Introduction of IT Strategy: Definition of IT Strategy, What is IT Alignment?, Causes of misalignment, IT Strategy process, Forces that Shape Business Strategy, Analyzing the Impact of IT on Strategic Decision Making, IT Evolution and its Implications for Business (Business—IT Alignment)

Building the Networked Economy: Value Chain and Value Creation: The Notion of Value and Value Creation is Examined in Relation to Value Chains and Business Processes.


Unit-II


Unit-III
IT Strategy and E-Business: Strategic impact of IT on E-business,

Managing IT Infrastructure for E-Business: IT Infrastructure and Strategic Alignment, Strategies for Managing Diverse IT Infrastructures, Managing IT Outsourcing: Strategies for Managing Outsourced Operations

Challenges and Opportunities in Assessing IT Payoff
**M14112 Information Systems Audit**

**Unit-I**

*Introduction*: Introduction to IS Audit, Objectives, Need for control and audit of computers, Effects of computers on internal controls, Effects of computer on auditing, foundations of information systems auditing Conventional Auditing versus IS Audit, Responsibilities of IS Auditor, Information System Audit and Control Association.

Framework of IS Audit: Information Systems Control Objectives, CobiT, ISACA, Indian Standards in IS Auditing, Steps in IS Audit, Internal control and IS Audit: Control, control framework IS control procedure.

**Unit-II**

Data Resource and Security Management Controls: Functions of DA and DBA, Data Repository Systems, Control over the DA and DBA, Conducting a Security Program, Major security Threats and remedial measures, Controls of last resort.

Operations Management and Quality assurance Controls: Computer Operations, Network operations, data preparation and entry, Production control, File library, Management of outsourced operations. QA functions, organizations considerations.

**Unit-III**

The Application Control Framework: Boundary Controls: Cryptographic controls, Access controls and audit, Personal identification numbers, digital signatures, plastic cards, audit trail controls. Input controls, Communication Controls,


Audit Software: Generalized audit software, industry specific audit software, high level languages, utility software, expert systems, neural network software, specialized audit software, control of audit software.
Production & operation Management

M14113 Production Planning and Control

Unit I
Objectives and benefits of planning and control-Functions of production control-Types of production-job- batch and continuous-Product development and design-Marketing aspect - Functional aspects-Operational aspect-Durability and dependability aspect aesthetic aspect. Profit consideration-Standardization, Simplification & specialization- Break even analysis- Economics of a new design.

Unit II
Method study, basic procedure-Selection-Recording of process - Critical analysis, Development - Implementation - Micro motion and memo motion study – work measurement - Techniques of work measurement - Time study - Production study - Work sampling - Synthesis from standard data - Predetermined motion time standards.

Unit III
Product planning-Extending the original product information-Value analysis-Problems in lack of product planning-Process planning and routing-Pre requisite information needed for process planning-Steps in process planning-Quantity determination in batch production-Machine capacity, balancing-Analysis of process capabilities in a multi product system.

Unit IV
M14114 Logistics Management

Unit I
Definition, concept, customer satisfaction, customer’s Value  Customer value creation
Organizing Logistics function  Management of information in logistics functions

Unit II
Development of transport through ages- Necessity of transport in industries and society In general-types of transport available for carrying: passengers only (b) livestock only (c) Goods only- (refrigerated/specialized vehicles)-what are the basic differences between these three types of transports  Transport and country’s economy-transport and Pollution-transport and legal aspect-transport and Energy consumption. Rail transport-history-all India network-types of Goods train-Types of wagons vis-à-vis types of Goods carriage  Procedure of booking goods-papers used-freights and freight structure-release of goods at destination

Unit III

Unit IV
Warehousing-need for knowledge-location of warehouse, Classes of warehouse, Designing of a warehouse, size of a warehouse, Functions & operations of a warehouse- consolidation, Breakbulk, Cross docking , Mixing, Assembly- Competitive advantage, production support warehouse- ERP  Definition of Third Party Logistics-Ingredients of Logistics Partnership- 4PL service providers-Outsourcing-Risks of Outsourcing and risk management, Relationship Management.
SEMESTER X

**M14115 Services Operations Management**

**Unit I**
Importance and role of Services -Nature of services -Service classification Service Package
Service Strategy -Internet strategies - Environmental strategies. New Service Development -
Designing the Service delivery system: Service Blue-printing - Managing Service Experience -

**Unit II**
Service Quality- SERVQUAL, -Gap Model -Complaint management - Walk-through Audit -
Service Recovery - Service Guarantees - Service Encounter. Service operational planning and
control -Process Analysis - Process Simulation -Service Facility Location -Capacity
Management in Services – Queuing models - Waiting Lines – Simulation - Yield management.

**Unit III**
Inventory Management in Services – Retail Discounting Model - Newsvendor Model - Vehicle
Routing and Scheduling -Productivity and Performance measurement - Data Envelopment
Analysis (DEA) -Scoring System – Method for customer selection.
JECRC UNIVERSITY
School of Management
(B Tech Integrated) Dual Degree