



**MAHARSHI DAYANAND SARASWATI UNIVERSITY**  
**AJMER**

**NOTICE**

Copies of the "Syllabus and Courses of Study"  
prescribed for the Faculties of Arts, Fine Arts, Social  
Science, Science, Commerce, Law, Education,  
Management Studies etc.  
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**MAHARSHI DAYANAND SARASWATI UNIVERSITY**  
**AJMER**

पाठ्यक्रम

**SYLLABUS**

**SCHEME OF EXAMINATION AND  
COURSES OF STUDY**

**FACULTY OF MANAGEMENT STUDIES**

Programme of Study  
**Master of Business Administration**  
**(Dual Specialisation)**  
(Functional Specialisation and Entrepreneurship  
& Family Business Management)  
MBA (e-Commerce)

Admission Session 2015

SEMESTER I Examination (November, w.e.f. 2015)  
SEMESTER II Examination (April, w.e.f. 2016)  
SEMESTER III Examination (November, w.e.f. 2016)  
SEMESTER IV Examination (April, w.e.f. 2017)

**संस्करण**  
**2015**



**मूल्य : 10/-**

**महर्षि दयानन्द सरस्वती विश्वविद्यालय, अजमेर**

MAHARSHI DAYANAND SARASWATI UNIVERSITY,  
AJMER

पाठ्यक्रम

# SYLLABUS

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Purani Mandi, Ajmer



## NOTICE

1. Change in Statutes/Ordinances/Rules/Regulations Syllabus and Books may, from time to time, be made by amendment or remaking, and a candidate shall, except in so far as the University determines otherwise comply with any change that applies to years he has not completed at the time of change. **The decision taken by the Academic Council shall be final.**

## सूचना

1. समय-समय पर संशोधन या पुनः निर्माण कर परिनियमों/अध्यादेशों/नियमों / विनियमों / पाठ्यक्रमों व पुस्तकों में परिवर्तन किया जा सकता है, तथा किसी भी परिवर्तन को छात्र को मानना होगा बशर्ते कि विश्वविद्यालय ने अन्यथा प्रकार से उनको छूट न दी हो और छात्र ने उस परिवर्तन के पूर्व वर्ष पाठ्यक्रम को पूरा न किया हो। विद्या परिषद द्वारा लिये गये निर्णय अन्तिम होंगे।

## Ordinance for MBA (e-Commerce) Programme

Master of Business Administration (e-Commerce) is a unique and innovative professional programme, conceived, designed by and offered at Center for Entrepreneurship and Small Business Management at Maharshi Dayanand Saraswati University, Campus Ajmer.

The programme of study aims at preparing graduates for exploiting unprecedented opportunities, being thrown up by phenomenal growth in businesses built on e-commerce model, by taking up self employment, preferably, or finding suitable placements in e-commerce industry and web based organisations.

The objectives of this programme of study are threefold-

- i. Enable young entrepreneurs/ managers develop a business sense
- ii. Learn principles and practices of management with special focus on the e-commerce needs
- iii. Equip and enable learners to have a solid grounding in both managerial and technical aspects of e-Commerce to be able to start a new business venture or to work for e-Commerce business houses or associated areas of the business.

Accordingly, to prepare candidates to be career ready, the programme has a large component of working in industry under the careful guidance of mentors.

### 1. Eligibility

Since the course comprises a mix of managerial and technical skills, only students capable of coping with diverse courses will do well in this course

- a. Candidates seeking admission to the MBA (e-Commerce) programme shall be required to possess a bachelors degree in engineering, commerce, management, computer application, science with mathematics or arts with mathematics or with computers, with minimum 48% marks in aggregate of this University or equivalent thereto.(43% for SC/ST/OBC). Admission to the programme shall be through an admission process of 100 points.
- b. Admission Process: A weightage of 20 points is given for percentage in 12th examination. 50 points shall be given to percentage in Graduation and 30 points are for Personal Interview and Group Discussion. Merit for admission to the programme shall be determined by the Center. If the number of applicants is less, admission may be offered on merit based on marks obtained in qualifying exams.

### 2. Programme

Master of Business Administration (e-Commerce) is a professional programme to be offered at Center for Entrepreneurship and Small Business Management and is a 2-year MBA programme. Each year consists of two semesters. There shall be four semesters of taught /self learning programmes. Total credits for the programmes are equivalent to 26 papers. Each paper will be of 30-40 hours instruction and equal hours of self study. There shall be an examination at the end of each semester as determined by the university.

### 3. Scheme of examination, evaluation and progression:

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- i. Every prescribed paper, except those requiring practical exams, shall carry a total of 100 marks. There shall be 50 marks for term end examination and 50 marks for internal examinations until and unless indicated otherwise. Courses requiring practical exams shall carry additional 50 marks and their total maximum marks shall be 150.
  - ii. A student has to appear in external, practical and internal examination and shall have to secure minimum 40% marks in external, practicals and internal examination separately to pass.
  - iii. Internal examination shall consist of continuous evaluation. Each paper shall be evaluated on the basis of internal assessment by the concerned teacher administering 3 feedback tests normally after 10-12 hours of teaching. Feedback test may be a written exam, laboratory practicals, quiz, presentation and class participation, exercise, essay, personal interview, simulation etc. Each feedback test shall be of 25 marks. Two best scores shall be added to obtain the total of internal scores.
  - iv. Practical examination will be conducted internally, by the center.
  - v. There shall be a semester-end external examination of 50 marks. A student shall generally be required to answer any five questions out of the seven questions asked. An examiner may choose to give a case study worth 20 marks analysed. In that case the student shall answer any three questions out of five questions asked in addition to the case study.
  - vi. Courses eC 401, eC 402, and eC 403 shall be evaluated as per scheme given in syllabus.
4. Examination:
- a. Examination Result: To pass a semester a student has to score minimum 40% marks in each course and also minimum 50% marks in aggregate.
  - b. Division: Division of marks shall be awarded on the basis of aggregate marks obtained in all the papers prescribed for all the Four (04) semester examinations as follows:
    - a. First Division                      60% and above
    - b. Second Division                    50% and above but below 60%
  - c. Due Papers: To pass each semester a student will be Allowed to Keep Term (ATKT) in three (03) papers; in one (01) semester and maximum six (06) papers during one year (two semesters). Candidate should obtain 50% marks in aggregate of the remaining papers (other than ATKT). A student can hold at most 40% ATKTs at any point of time. A student has to clear all the papers of Semester I to be eligible for appearing in semester III of Part II. wherever a student appears at an ATKT examination she/he will do so according to the syllabus at that time and fulfill the requirements of the course in force at that time.
5. Attendance  
As per prevalent University rules
6. There will be reservation for SC/ST/ OBC candidates as per rules of Maharshi Dayanand Saraswati University, Ajmer.
  7. There shall be upto 10 super ordinate seats for business families' candidates.

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There shall be a 5% point relaxation in minimum admission eligibility for business families' candidates (43% for General candidates and 38% for SC/ST/ OBC candidates).

8. There will be one super numeral seat for ward of Maharshi Dayanand Saraswati University employees/ teachers. The admission would be based on merit in specified admission test and interview and GD.

9. Course Structure

		Semester 1			Total
		Internal	External	Practical	
eC 101	Fundamentals of Management	50	50		100
eC 102	Managerial Economics and Quantitative Techniques	50	50		100
eC 103	Accounting for Managers and Management Control Systems	50	50		100
eC 104	Information Systems and Office Automation	50	50		100
eC 105	Introduction to e-Commerce , IT Tools and Protocols	50	50		100
eC 106	Web Designing	50	50	50	150
eC 107	Operating System and Object Oriented Programming	50	50	50	150
eC 108	Relational Data Base Management Systems	50	50	50	150
Total					950
		Semester 2			
eC 201	Business Statistics and Research Methodology	50	50		100
eC 202	Consumer Behaviour and Marketing Research	50	50		100
eC 203	Management of Service operations and Service Quality	50	50		100
eC 204	Marketing Management and e-CRM	50	50		100
eC 205	e-Marketing, e-Tailing and ERP	50	50		100
eC 206	Advanced Application Programming I with Payment Gateways Integration	50	50	50	150
eC 207	Application Programming using JAVA Netbeans	50	50	50	150
eC 208	Interactive System Design and GUI	50	50	50	150

Total				950
<b>Semester 3</b>				
eC301	Supply Chain Management, Logistics and Warehousing	50	50	100
eC302	Business Policy and Strategic Management	50	50	100
eC303	Entrepreneurship and Innovation	50	50	100
eC304	e- Commerce Laws and Ethics	50	50	100
eC305	Information Security	50	50	100
eC306	Mobile Commerce (m-Commerce)	50	50	150
eC307	Data Mining and Data Warehousing	50	50	150
eC308	Advanced Application Programming II	50	50	150
Total				950

**Semester 4 Workshop Participation And Industry Experience**

eC401				
eC402	Workshop On Change Management			100
	<b>OR</b>			
	Workshop On Business Analytics			100
eC403	Industry Internship			450
	Total			550
	Grand total			3400

**(Semester Examination Scheme)****Regulation 22C**

- There shall be 26 Papers (08 papers in Semester I and 08 papers in Semester II of Part I, 08 papers in Semester III and 02 papers in Semester IV of Part II). Prescribed courses eC101, 102, 103, 104, 201, 202, 203, 204, 205, 301, 302, 303, 304, 305 and 401 or 402 shall carry a total of 100 marks. Prescribed papers eC106, 107, 108, 206, 207, 208, 306, 307 and 308 having practical exams shall carry a total of 150 marks. Industry Internship eC 403 shall carry a total of 650 marks. There shall be 50 marks for term end examination for all papers and 50 marks for internal examination until and unless indicated otherwise. Papers eC106, 107, 108, 206, 207, 208, 306, 307 and 308 shall carry additional 50 marks for practical examinations
- ii. A student has to appear in external, internal and practical examinations (wherever prescribed) and shall have to secure minimum 40% marks in external, practical and internal examinations separately to pass.
  - iii. Internal examination shall consist of continuous evaluation. Each paper shall be evaluated on the basis of internal assessment by the concerned teacher administering 3 feedback tests normally after 10-12 hours of teaching. Feedback test may be a written exam, practical, quiz, presentation and/or class participation, exercise, essay, personal interview, simulation etc. Each feedback test shall be of 25 marks. Two best scores shall be added to obtain the total of internal scores.
  - iv. There shall be a semester-end external examination of 50 marks and wherever prescribed, a practical examination of 50 marks. A student shall generally be required to answer any five questions out of the seven questions asked. An examiner may choose to give a case study worth 20 marks analysed. In that case the student shall answer any three questions out of five questions asked in addition to the case study.
  - v. Courses eC 401, eC 402, eC 403 shall be evaluated as per scheme given in syllabus.
  - vi. The medium of instruction will exclusively be in English and student has to answer all the question papers in the prescribed course in English only in both internal and external examinations.
  - vii. At the end of Third Semester the candidate is required to participate in Workshops on Change Management or Business Analytics. The evaluation of learning will carry 100 marks. This shall be done through written test of 50 marks and viva voce of 50 marks.
  - viii. During the IV Semester the student is required to undergo Industrial Internship and earn hands-on experience in a relevant industry/business house

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for 03 (three) calendar months. The student shall execute a project in consultation with the Industry supervisor and submit a report at the end of the internship. The evaluation will be as detailed in the syllabus and carries 650 marks.

- ix. The number of courses and the maximum marks for each course (internal and external and practical separately) shall be shown in the syllabus for the subject concerned. In order to pass a semester a student shall have to score minimum 40 % marks in each course in both external and internal examinations and also minimum 50% marks in aggregate in remaining papers except ATKT (Allowed To Keep Terms) papers.
- c. To pass each semester a student will be Allowed To Keep Term (ATKT) in three (03) papers in one (01) semester and maximum six (06) papers during one year (two semesters). Candidate should obtain minimum 50% marks in aggregate of the remaining papers (other than ATKT). A student can hold at most 40% ATKTs at any point of time. A student has to clear all the papers of Semester I to be eligible for appearing in IV semester / II year. Wherever a student appears at an ATKT examination she/he will do so according to the syllabus in force at that time and fulfill the requirements of the course in force at that time.
- d. A student shall be required to successfully complete the programme within a continuous span of six year from the date of admission. During this period if there is any ATKT in any courses, the same has to pass with a maximum of next three chances within a span of six year from the date of admission.
- xii. A student shall be eligible for the award of MBA ( e Comm) degree only if he/ she fulfills the following conditions:
- (a) Passes all the four semesters/ Two years as laid down in the syllabus as well as all the viva-voce examination.
- (b) Fulfills all other requirements prescribed by the competent authority from time to time for satisfactory completion of each course of study in each of the two years.
- (c) Division of marks shall be awarded on the basis of aggregate marks obtained in all the papers prescribed for all the four semesters/ two year examinations as follows:
- |                         |  |
|-------------------------|--|
| Passed with I Division  | Aggregate marks taken together of the Part I and Part II of MBA (e Comm) examinations should be 60% and above.                 |
| Passed with II Division | Aggregate marks taken together of the Part I and Part II of MBA (e Comm) examinations should be 50% or more but less than 60 % |

## SEMESTER I

### eC 101 Fundamentals of Management

- Unit 1 Basic concepts of Management; Managerial roles and skills; overview of functions of management; Planning, organising, staffing, directing, controlling; Leadership.

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- Unit 2 Introduction to organizational behaviour; Personality and Attitude; Perception; Motivation; Group dynamics and team building; Communication; Emotional Intelligence; organizational design and structure.
- Unit 3 Concept of decision making; Managerial decision making; Individual and Group; Techniques of Decision making; Decision tree; Errors in decision making; Quantitative decision making; Information and decision making; Decision support system. decision expert system.

### Suggested Readings

- 1 Koontz "O" Donnell, Management, 8th Ed. International student and Wehrich Edition, Kogakusha, Tokyo.
- 2 VSP Rao, and V Hari Krishna, Management, Excel Books, New Delhi.
- 3 Robbins.S. Organizational Behaviour. Pearson Education, New Delhi.

### eC 102 Managerial Economics and Quantitative Techniques

- Unit 1 Micro Economics: Introduction, concept of demand and supply, elasticity of demand and supply, demand forecasting, basic problems of an economy.
- Unit 2 Macro Economics: introduction, Macroeconomic policies: Monetary, Fiscal and new economic policy, Basic concepts of: National Income, Balance of payments, Trade cycle, Inflation: types, measures, effects, Economic growth and development.
- Unit 3 Overview of Operations Research; Transportation problems; Decision Theory ; Elementary Queuing Theory; Simulation; Networking techniques- PERT & CPM, crashing

### Suggested Readings

- 1 Ahuja H. L. Micro Economics, Himalaya Publishing House, New Delhi
- 2 Siddiqui S A and Siddiqui A S. Managerial Economics and Financial Management, New Age International Publishers, New Delhi
- 3 Kapoor, V.K. (1999). Operations Research, Sultan Chand and Sons, New Delhi.
- 4 Sharma, J.K. (2001). Fundamentals of Operations Research, Macmillan India Ltd., New Delhi.

### eC 103 Accounting for Managers and Management Control Systems

- Unit 1 Introduction to accounting, concepts & conventions of accounting, Accounting Equation, Recording of Business Transactions: Brief outline of Journalizing, Posting & Trial Balance.
- Unit 2 Trading, Profit & Loss Accounting, Balance Sheet, Adjustment Entries, Standard Costing & Variance Analysis
- Unit 3 Management Control: Concept, Nature, Purpose and Importance, Management Control Process, Overview of Management Control Techniques: Concept of Responsibility Centers, Revenue Center, Profit Center and Investment Center, Management Reporting System.

### Suggested Readings

- 1 Maheshwari, S. N., An Introduction to Accountancy, Sultan Chand & Sons,



New Delhi.

- 2 Grewal T. S., Double Entry Book Keeping System, Tata McGraw Hill Publication, New Delhi.
- 3 Arora M N, Cost Accounting-Principles and Practice, Vikas Publishing House Pvt Ltd., New Delhi
- 4 Anthony, R N and Govindrajana V. Management Control Systems. 8th ed., Taraporewala, Chicago, Irwin, 1995
- 5 Ghosh, P K and Gupta, G S. Cost Analysis and Control. New Delhi, Vision 1985.

### eC 104 Information Systems and Office Automation

Unit 1 Information System: Concepts, components, types of information system, technology of information system: Hardware and software resources

Unit 2 Word processing ( MS WORD), Spread sheet ( MS-EXCEL), system control, Network system, MS Access

Unit 3 Security aspects: EDI, Internet and E-Mail, business administration- data processing

#### Suggested Readings

- 1 Lauden & Lauden, MIS  
Jawedekar, MIS

Munnesh Kumar, BIS

### eC 105 Introduction To e-Commerce, IT Tools and Protocols

Unit 1 E-Commerce Introduction: Traditional commerce-vs E-commerce, E-commerce Advantage to- Organization, customers, Society. Disadvantage- Technical, Non technical, Features of E-Commerce, The Anatomy of E-commerce. Electronic mail, Electronic Bulletin Boards, EFT, Business model (B2B, B2C, C2C, C2B, B2G, G2B, G2C), Payment System- Credit card payment system, Debit card, smart card, E-money, Electronic fund transfer. Electronic data Interchange (EDI), EDI Document, Advantages of an EDI System. Architecture framework for electronic commerce, World Wide Web, consumer oriented e commerce, electronic customer relationship management strategies.

Unit 2 Electronic payment system: online payment system- prepaid e-payment service, post-paid e-payment system, SET protocol, Digital token based Electronic Payment system, E-cash, E-cheque payment, credit and legal risk of e-payment system.

Security system of E-commerce- E-Commerce Security requirement, Measure to ensure security, Security protocol in Internet-SSL, HTTPS, Secure electronic transaction component- Digital wallet software, Merchant software, Payment Gateway server software, certificate Authority software, issues & solution, Security and Threats -Encryption -Cryptography and authentication

Unit 3 E-commerce technologies :Internet & WWW; Internet Protocols - OSI Model, TCP/IP, TCP, UDP, IP, DNS,FTP, SLIP, PPP; Multimedia technology -

ISDN, ATM, Cell relay, desktop Video Conferencing; Information Publishing Technology - HTML, URL, HTTP, HTML FORM, HTTPD, CGI SERVICES, Web Server and client; Advance Technologies - Mobile Agents, WAP, XML, web 2.0,

#### Suggested Readings

1. Jeffrey , Introduction to E-commerce Tata-McGraw-Hill
2. Brahm., E-Business and Commerce -Strategic Thinking and Practice bizantra.
3. Ramesh Bangia ,Web Technology:
4. HTML-The complete Reference.

### eC 106 Web Designing

Unit 1 Website concepts, type of website- static vs dynamic, Domain name system, hosting, web server: Photo editing: Selections Tools and Technique, Cropping, Patching, Working with layers, navigator, and history, Color Selection, Gradient Creation, Color Picker, Handling text, Image formats, Color Model, Eraser, Canvas Size, Rotation, Image optimization for web, import/export, use of scanner, Feather, Dodge, Burn, Masking, creating animated and transparent images.

Unit 2 HTML: Build HTML documents from scratch, using a variety of Web browsers, frames and tables, using hypertext, navigation bars, background, titles, embed images and sound, introduction to HTML, Type of websites, CMS, Blog, RSS, Google Drive, Microsoft SharePoint, HTML and CSS code validation, Site marketing, Google Analytics, Backup and site archive

Unit 3 CSS: Creating style sheets: Use of CSS, Types, Selectors, Properties, Units, Pseudo classes, Liquid and Fixed layout, background, border, colour, text, font, animation, Yahoo-Pure-CSS. JavaScript: Types, reserved words, identifiers, events, primitive data types, escape sequence, data type conversion functions and methods, operators, control structures, exception handling, Regular Expression, use in validation, Introduction to JQuery, show/hide text on click, showing calendar in text box. Workshop: Photography with basic concepts

#### Suggested Readings

- 1 Robert Shufflebotham ,Photoshop CS5, Tata McGraw Hill Education Private Limited, ISBN-10: 0071333584, ISBN-13: 978-0071333580
- 2 Thomas A. Powell , HTML & CSS: The Complete Reference (English) 5th Edition, Tata McGraw Hill Education Private Limited.
- 3 Html 5 In Simple Steps, Kogent Learning Solutions Inc., 9789350040867
- 4 HTML and CSS: Design and Build Websites, By Jon Duckett, John Wiley & Sons.
- 5 JavaScript: The Good Parts (English) 1st Edition, Shroff - O'reilly, ISBN-10:8184045220, ISBN-13:9788184045222
- 6 Better Photography magazine.
- 7 50 Ways to Make Google Love Your Website (English), Liam McGee Steve

**eC 107 Operating System and Object Oriented Programming**

Unit 1 Linux introduction and file system - Basic Features, Different flavors of Linux. Advantages, Installing requirement, Basic Architecture of Unix/Linux system, Kernel, Shell. Linux File system-Boot block, super block, Inode table, data blocks, How Linux access files, storage files, Linux standard directories. Commands for files and directories CD, LS, CP, MD, RM, MKDIR, RMDIR, PWD, file, more, less, creating and viewing files using cat, file comparisons - cmp & comm, View files, disk related commands, checking disk free spaces. Partitioning the Hard drive for Linux, Installing the Linux system, System startup and shut-down process.

Unit 2 C++ Language: Introduction to Object Oriented Programming, Object Oriented Programming approach, Advantages of Object Oriented Programming; Tokens, Data Types and size, Operators, Variables and naming rules, Input & Output statements, Control Statements-Branching-Iteration-Jumping.

Unit 3 Array-single dimensional & multi dimensional; String and string functions; User Defined Functions, Function Overloading; Class & Structure, Static Members, Friend Function; Constructor, Copy Constructor, Default constructor, Parameterized constructor, Destructor; Inheritance, types of inheritance, Abstract class, Function Overriding, Operator Overloading, File Handling

**Suggested Readings**

- 1 Sumitabha Das, UNIX - Concepts & Applications (Third Ed.) , Tata Mcgraw Hill Publications
- 2 Balagurusami, Object Oriented Programming with C++ E. TMH Publications

**eC 108 Relational Data Base Management Systems**

Unit 1 Introduction to database concepts: relation/Table, attribute, Tuple / Rows, field, Data, Concept of String, Number and Date values, Data type and Data Integrity (Domain and Referential Integrity). Candidate key, Alternate key, Primary Key, Foreign Keys; Data Normalization-first, second, third, BCNF.

Unit 2 Classification of SQL Statements: DML, DCL, TCL; Fundamentals Concept of Database Transaction, Committing and revoking a Transaction using COMMIT and REVOKE. Creating a Table with PRIMARY KEY and NOT NULL constraints, adding a Constraint, enabling Constraints, Viewing Constraints, Viewing the Columns Associated with Constraints; ALTER TABLE for deleting a column, ALTER TABLE for modifying data types of a column DROP Table for deleting a table;

Unit 3 Functions: SQL Functions, Types of SQL Function (Single Row/Multiple Row), Arithmetic Operation on Dates, Date Functions and their Usage, Data type Conversion Functions, Implicit and Explicit Conversion, TO\_CHAR

Function with Dates, TO\_CHAR Function For Numbers, TO\_NUMBER and TO\_DATE Functions. Grouping Records: Concept of Grouping Records and Nested Grouping, Nested Grouping of records, Group Functions, Group By Clause; Grouping By More than One Column, Having Clause.

**Suggested Readings**

- 1 Elmasri and Navathe, Fundamentals of Database Systems [4e], Pearson Education
- 2 Raghu Ramakrishnan, Johannes Gehrke, Database Management Systems [3e], Mcgraw-Hill
- 3 MySQL(TM): The Complete Reference, Vikram Vaswani, ISBN-10: 0070586845, ISBN-13: 978-0070586840.

**SEMESTER II****eC 201 Business Statistics and Research Methodology**

Unit 1 Statistics; Characteristics, functions, importance, limitations and scope; Data collection and presentation, frequency distribution and analysis, measures of central tendency, dispersion, correlation and regression.

Unit 2 Basic concepts of probability and probability distribution- binomial, poisson and normal; sampling distribution of means and proportions; Sample Design: Probability and Non Probability sampling

Unit 3 Definition, importance and types of business research: Descriptive and Exploratory; research process; Methods of Data Collection - Primary and Secondary Methods; Questionnaire Design, Attitude Measurement Techniques; Report Writing.

**Suggested Readings**

- 1 Pillai R S N and Bagavathi, Statistics, S Chand and Co., New Delhi
- 2 Sharma J K, Business Statistics, Pearson Education
- 3 Gupta S P, Statistics, S Chand & Company, New Delhi
- 4 Levin and Rubin, Statistics for Management; Prentice-Hall of India, New Delhi
- 5 Donald R. Cooper, Pamela S. Schindler. Business Research Methods, Tata McGraw Hill Publication, New Delhi.
- 6 Kothari C.R. (2006). Research Methodology Methods and Techniques, New Age International Publication, New Delhi

**eC 202 Consumer Behaviour and Marketing Research**

Paper has been designed such that it acquaints the students with the various stages that a consumer goes through before purchasing any product or service. Objective The course is designed to inculcate the analytical abilities and research skills among the students.

Unit I Introduction: Meaning, Definition, nature and scope, concept of consumer research, qualitative and quantitative research, steps in consumer research



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process, Models of Consumer Behaviour, Consumer Involvement and Decision Making.

- Unit 2 Types of consumer buying behaviour, environmental influences on consumer behaviour, Information Search Process; Evaluative Criteria and Decision Rules; Consumer Motivation; Information Processing and Consumer Perception; Consumer Attitudes and Attitude Change, Industrial Buying Behaviour, Retailing and consumer behavior: profile of Indian consumer, contemporary issues in consumer behaviour
- Unit 3 Marketing Research: Introduction, Marketing Research Process, Importance and Application, Management uses of marketing research, Problem Formulation & steps in decision Making Process, Product Research, Advertising Research – Copy Testing – Test Marketing, Media Selection, Research Report : Types and Layout of Research Report; Precautions in Preparing the Research Report, Bibliography and Annexure in Report, Drawing Conclusions, Giving Suggestions and Recommendation to the Concerned Persons. Marketing Information System: Concept, Need for Marketing Information System, Process of Marketing Information System, Components of Marketing Information System

#### Suggested

- Reading 1. Schiffman, L G and Kanuk, L L. Consumer Behaviour. New Delhi, Prentice Hall of India, (Latest Edition)
2. Assael, H. Consumer Behaviour and Marketing Action. Ohio, South Western, 1995.
3. Engle, J F. Consumer Behaviour. Chicago, Dryden Press, 1993.
4. Hawkins, Best and Coney, Consumer Behaviour (Tata Mc Graw Hill, 9th Ed.)
5. Paul E. Green, Donald S. Tull, Research for Marketing Decisions
6. Harper W. Boyd Jr. , Ralph Westfall, Marketing Research- Text and Cases
7. Beri, Marketing Research (Tata McGraw Hill, 4th Ed)

#### eC 203 Management of Service operations and Service Quality

- Unit 1 The nature of services: Introduction and imperatives of services, Nature of services, Classification of services and analysing service operations. Aligning Service Strategy and Service Competitiveness: Introduction to service strategy, competitive service strategies, strategic service vision. Service Design, Development and Automation: New service design and delivery processes, technology and automation in services, Service encounter
- Unit 2 Service Facility Design and Facility Location: Service facility design, process analysis of facility layouts, facility location decision factors, quantitative models for facility location, Demand Management in Services: Demand forecasting in services, smoothing customer demand in services, Capacity

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Management or Supply Management in Services: Service capacity management, Yield management, Resource and workforce scheduling in services; Managing Waiting Lines and Queuing Models: Introduction to queuing systems, Characteristics of Queuing systems, Queuing models, Service Inventory and Supply Chain management: Service inventory management; Service supply chains, Processes in service supply chains

- Unit 3 Management of service quality: Defining service quality, Quality philosophy and performance excellence, Quality service by design, service process control, Service gap model, TQM Tools, Service recovery and guarantee; Managing Human Resources in Services: Human resource planning an employee selection, managing people in service organisations, work measurement in services

#### Suggested Readings

1. Haksever C., Rende RB., Russel, S.R and Murdick R.G. ,Service Management and Operations, Prentice Hall

#### eC 204 Marketing Management and e-CRM

This course shall introduce the learner to the basic marketing concepts, functions; market environment and decision variables. The purpose of the syllabus is to not just make the students aware of the concepts and practices of e-CRM in modern businesses but also enable them to design suitable practices and programs for the company they would be working.

- Unit 1 Introduction of marketing in business, role and importance; meaning, definition, Nature and Scope of Marketing and basic concepts of marketing, Selling vs. Marketing.
- Unit 2 Market segmentation, targeting and positioning; competitive advantage and strategic positioning; Product, Place, Price and Promotion.
- Unit 3 Customer Relationship Management: Technology Dimensions - e-CRM in Business, CRM: A changing Perspective, Features of e-CRM, Advantages of e-CRM, Technologies of e-CRM, Voice Portals, Web Phones, BOTs, Virtual Customer Representative, Customer Relationship Portals, Functions: Components of CRM, Important CRM softwares.

#### Suggested Readings

- 1 Kotler, P. (2002). Marketing Management. Prentice Hall of India, New Delhi
- 2 Ramaswamy, V.S. and Namakumari, S. (2002). Marketing Management, Planning and Control. Macmillan India Ltd., New Delhi.
- 3 Alok Kumar Rai : Customer Relationship Management: Concepts and Case (Second Edition)-PHI Learning
- 4 Sheth J N. Parvatiyar A. and Shainesh G.:Customer relationship management: Emerging Concepts, Tools. & Applications, Tata McGraw-Hill Education
- 4 H. Peeru Mohammed. A Sagadevan, CRM ,Vikas Publishing House Pvt. Ltd.
- 5 Jill Dyche, The CRM handbook, Pearson

- 6 Sheth, Parvatiyar, Shainesh, CRM, Tata Mc Graw Hill
- 7 Burnett Ken, The handbook of key CRM, Pearson Education
- 8 Paul Greenberg, CRM at the speed of Light, Tata Mc Graw Hill

### eC 205 e-Marketing, e-Tailing and ERP

- Unit 1 Introduction to e-Marketing: e-Business, Marketing vs. E-Marketing Opportunities and challenges in e-Marketing and E-business models, Marketing body of knowledge: e-marketing information systems, sources of marketing knowledge and warehousing, data analysis and distribution Marketing strategies: online costs, new product strategies for e-Marketing, new product trends, value chain automation, outsourcing, multimedia, Pricing strategy, price dispersion, factors putting upward pressure on internet pricing, e-Marketing communication: integrated marketing communication, marketing communication strategies, advertising, public relation activities and sales promotion on internet, CRM process, CRM -SCM integration, CRM benefits.
- Unit 2 E-retailing meaning, definition, Evolution of E-retailing, benefits and limitations of E-retailing, security concern, customer service, E retailing online merchandising technique-online store, Zoom imaging, virtual model, personalization. Issues of E-retailing.
- Unit 3 Understanding ERP-based Enterprise Systems: Familiarisation of managerial, business and technical issues associated with ERP-ES, Key drivers of ERP-ES, ERP-ES enabled business transformation, Tangible and intangible benefits of ERP-ES, Evolution of enterprise system from MRPII to ERP, Adoption steps in ERP-ES, Need analysis for ERP solutions, Cost benefit analysis, Feasibility analysis, Computing architecture of ERP, Differences in two-tier and three-tier client-server architecture, Web enabled and distributed component computing architecture. Comparative analysis of ERP software, Evaluation of ERP solutions, ERP enabled Business Process Re-engineering.

#### Suggested Readings

- 1 Judy Strauss and Raymond Frost (2009), E-Marketing, Upper Saddle NJ: Prentice Hall
- 2 A.Lexis Leon, "Enterprise Resource planning", TMH.
- 3 Jaiswal, Mahadeo and Vanapalli, Ganesh, Textbook of Enterprise Resource Planning, Macmillan

### eC 206 Advanced Application Programming I with Payment Gateways Integration

- Unit I Introduction to .Net, Two tier and Three tier client server model, .Net Architecture, .Net Framework, Common Type System, CLS, Assemblies, Garbage Collector and collection process, Code Access Security, IDE, Creating a project, Types of project in .Net. Exploring and coding a project, Solution explorer, toolbox, properties window, Output window, Object Browser.

- VB.Net Programming Language: Variables, Comments, Data Types, Working with Data Structures – Arrays, Array Lists, Enumerations, Constants, Structures; Introduction to procedures, calling procedures, argument passing mechanisms, scope of variable; Input - Output, Control Flow Statements; Using Form – Common Controls, Properties, Methods and Events.
- Unit 2 Advance controls: Common Dialog, Creating and Using MDI applications, Toolbar, Status Bar, Creating custom controls, working with Menus. Database programming: Overview of ADO, using Server Explorer. Connection, Command, Data Adapter and Data Set with OLEDB and SQLDB. Data bound controls, Display data on Data Grid. Generating Reports, Crystal Report.
- Unit 3 Payment Gateway: Types of payment gateways, Merchant, Merchant bank, client Bank, transaction security, API processing and site testing.

#### Suggested Readings

- 1 Steven Holzner, VB.NET Programming black book, Dreamtech Publications
- 2 Evangelos Petroustos, Mastering VB.NET, Bpb Publications

### eC 207 Application Programming using JAVA Netbeans

- Unit 1 Introduction to Java, history, characteristics, Object Oriented Programming, data types, variables, arrays, control structures; Class fundamentals, constructor, methods, inheritance, method over-riding, interface; Packages, exception handling; Java Library, string handling, string buffer, vector, stack.
- Unit 2 Applet and Swing: introduction to Applet, using appletviewer, passing parameter to applet, graphics handling in applet; Swing: Event Handling, JFrame, Lists, Tables, Trees, Text Components, Progress Indicators. JDBC, class and methods, API components, JDBC components, driver, connectivity to database, processing result, transactions.
- Unit 3 JSP: Overview of Servlet, MVC architecture, HTTP Request – Get/Post-redirecting request – multi-tier applications; Overview of JSP, Implicit Objects, Actions, Directives. Web 2.0 and Web 3.0 Technologies

#### Suggested Readings

- 1 Patrick Naughton and Herbert Schildt, Java: The Complete Reference, TMH Publication ISBN 0-07-463769-X
- 2 E. Balagurusamy, Programming with Java TMH Publications ISBN 0-07-463542-5

### eC 208 Interactive System Design and GUI

- Unit I Intro to UI (User Interface): User, computer, type of interfaces, Introduction to Natural User Interface, Characteristics of good UI; Site developer team, skill set required, web team-role and responsibilities, Content inventory. Interface Design: fixed width and flexible width, line length; accessibility: user-centred design and universal design, Keyboard functionalities; Development Cycle: Requirement. Design, Development, Testing; creating website's

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GUI structure in photo editing software.

Unit 2 SEO: Search Engine concepts, web crawler working, Title and Keywords, HTML meta tags, website submission to search engines, Site map.

Page Structure: Elements of a page- header, footer, navigation, sidebar, tabs, content area, search box; Wireframe, Introduction to page layout tools.

Unit 3 Typography and Graphics: Characteristics of Type on the Web, Legibility, alignment, white space, type color, leading, typeface, font weight, Graphics: Color model, screen resolution, graphics and bandwidth, graphics file formats- GIF, JPEG, PNG, dithering, DPI for screen, background graphics, text alternates, creating audio-video and slide show.

Practical Area: Prototyping tools

**Suggested Readings**

- 1 Patrick J Lynch, Sarah Horton, Web Style Guide: Basic Principles for Creating Web Sites, Yale Univ Press.
- 2 Pustak Mahal, Search Engine Optimization, (13 November 2010), ISBN-10: 8122311520

**SEMESTER III****eC 301 Supply Chain Management, Logistics and Warehousing**

Unit 1 Introduction-concept, scope, objective and importance of SCM; Managing supply and demand, forecasting, Supply Chain Planning, Channels of distribution- Customer service; Supply chain relationship; Performance measurement and reporting. Role of IT in SCM

Unit 2 Warehouse management: concept of warehousing, supply chain and functions of warehousing, types, characteristics of an ideal warehouse, organization of warehouse for various products, costs, tracking of retail product. Distribution and replenishment. Inventory management and material handling. Technology aids in warehousing.

Unit 3 Introduction to logistics management, overview, Logistical planning, resources, Information, distribution networks, costing and pricing. Transport- transport infrastructure, packaging, transportation regulation, transport management

**Suggested Readings**

- 1 Agarwal, D.K. Textbook of Logistics and Supply Chain Management,
- 2 Chopra, Sunil and Meindl, Peter Supply Chain Management, Strategy, Planning and Operation, Pearson Education,
- 3 Burt (2002) World Class Supply Management. Tata McGraw Hill, New Delhi.

**eC 302 Business Policy and Strategic Management**

This course should help learner develop understanding of process of developing and implementing strategy.

Unit 1 Nature, importance and concept of strategy; process of strategic manage-

ment; vision, mission, objectives and goals; components of environmental scanning- SWOT analysis, capability factors, and organisational appraisals.

Unit 2 Grand strategies, different types of strategies; corporate portfolio analysis: industry and competitor analysis, subjective factors in strategic choices: strategic plan

Unit 3 Project and procedural implementation; resource allocation, structural behavioural and functional implementation.

**Suggested Readings**

- 1 Kazmi, A. (2002). Business Policy and Strategic Management. Tata McGraw Hill, New Delhi.
- 2 Wheelen, T.L. and Hunger, J.D. (2003). Strategic Management and Business Policy. Pearson Education, (LPE), New Delhi.

**eC 303 Entrepreneurship and Innovation**

Unit 1 Concepts of Entrepreneurship and intrapreneurship, Characteristics of entrepreneurs the entrepreneurial process Concept of creativity, Invention, and Innovation. Tools for creativity.

Unit 2 Imperative to innovation, Innovation process, types of innovations, Enablers and barriers to innovation, preparing a business plan

Unit 3 Business opportunity identification, Evaluation of opportunity, new venture life cycle, Innovation diffusion

**Suggested Readings**

- 1 Timmons A Jeffrey and Spinelli Stephen, New Venture Creation-Entrepreneurship for the 21st century, Tata Mc Graw Hill.
- 2 Sahay A, Sharma V, Entrepreneurship and New Venture Creation, Excel Books.
- 3 Charantimath, Poonima, Entrepreneurship Development and Small Business Enterprises, Pearson
- 4 Maital, Shlomo and Seshadri D.V.R., Innovation Management, Sage Publications

**eC 304 e-Commerce Laws and Ethics**

Unit 1 Ethical principles and application to these principles on business and technology, issues on net, Ethical issue in e commerce, levels of ethical issue, category of issues. Emerging issue: online governance & ICANN, jurisdiction, fraud. Introduction and relevance of concept of Child Rights

Unit 2 Network technology and information rights- Information gathering tool and their impact on privacy, mobile and location based privacy issue, federal and state privacy law, Fair information practice principle, Technological solution. Internet and media Law: law and emerging principles, defamation, liability of service providers, privacy issues, publication ban, regulation of telecommunication and related industries, media content regulation, media ownership.

Unit 3 Intellectual property of e commerce, legal issue, privacy, Intellectual property protection- copyright, Patents, Trademark law, cyber torts, trade secret. con



tractual arrangement, technology licensing, internet taxation issues, technology failure liability, computer crime, and privacy. E-commerce governance, present E com laws in India, and Ecommerce laws in India needed.

**Suggested Readings**

- 1 101 Things You Need to Know About Internet Law. Three Rivers Press ISBN 0609806333
- 2 S..2. Butter et al E-business Legal kit for Dummies Hungry Minds inc .
- 3 J.Dianne Brinson, Mark F.Radcliffe, Internet Law and Business Handbook Ladera Press;

**eC 305 Information Security**

**Unit 1 Introduction:** Aspects of Security, Information Age and Risks, Vulnerabilities, Causes and Effects, Communications Security Criteria, Physical Security, Organisational Integrity, Security Attacks, Security Services, Integrity check. Security Policies and Security Handshake Pitfalls: What is security policy, high and low level policy, user issues? Protocol problems, assumptions, shared secret protocols, mutual authentication, reflection attacks, use of timestamps.

**Unit 2 Information security, Cryptography, Symmetric-Key Cryptography, Traditional cipher, Data Encryption Standard (DES), DES function, Triple DES, Asymmetric-Key Cryptography, RSA, Diffie-Hellman, Conventional Encryption Principles, Theory and Terminology, Advance Encryption Standard(AES), Message confidentiality, Message Authentication, Message authentication code(MAC), HMAC, Digital signature, Entity Authentication, passwords.**

**Unit 3 Security in Internet- IP Security (IPSec), Authentication Header protocol, Encapsulation Security Protocol, Virtual private Network, VPN technology, SSL service, P Mail Security, IP security, Web security. Introduction of Cyber Crime, Categorizing cyber crime, perception of cyber criminals: hackers, attack and defence, Cyber Law.**

**Firewall- Network Security Issues, Firewalls – Need and Features of Firewalls, Types of Firewall Technology- Network Level and Application Level, IP Packets Filter Screening Routers, Limitations of Firewalls.**

**Suggested Readings**

- 1 Stallings, W. Cryptography and Network Security: Principles and Practice, 3rd ed., Prentice Hall PTR., 2003.
- 2 Stallings, W. Network security Essentials: Applications and standards, Prentice Hall, 2000.
- 3 Behrouz A Forouzan, Cryptography and Network Security; McGraw Hill
- 4 Behrouz A Forouzan, Data Communication and Networking; McGraw Hill.

**eC 306 Mobile Commerce (m-Commerce)**

**Unit 1 Mobile commerce introduction, M- commerce architecture framework, Mobile commerce Services, Mobile commerce Application, m-commerce vs. m-**

business, benefits of mobile commerce, Trends in M-commerce. Growth of mobile commerce, Mobile health services, Wireless Application, Technologies for mobile commerce, Wireless spectrum, WAP, Origins of WAP, WAP architecture,

**Mobile products-** Mobile Banking, Mobile Ticketing, Mobile payment system-system model, SMS/USSD based transaction payments, Direct mobile billing, Mobile web payment - Direct operator billing, Credit Card, Online wallets. QR Code Payment, Contactless NFC (Near Field Communication), Cloud-base mobile payments, Audio signal -based payment.

**Unit 2 Mobile Devices technologies – Mobile commerce architecture framework, Different platform and OS for handheld devices, Mobile app, introduction to Android, Installing Android Development Tool, Android Stack, Android application structure, creating a project, working with Android Manifest.xml, Activity life cycle, Layout XML Code, Java based , Logging, Working with common widgets , Working with List View and Adapters, Working with Dialogs and Toasts notification**

**Unit 3 Emulator, simulator, Hardware need, Designing UI (layout), Event handling, menu basics, Basic operation of SQLite Database, Dalvik Virtual Machine & .apk file extension, Activities, Services, Broadcast Receivers & Content providers, Intents & Intent Filters, user-permissions, Resources & R.java.**

**Suggested Readings**

- 1 Brain Mennecke, Tro Strader, Mobile commerce Technology, Theory, and applications PHI learning Press- Mobile Commerce
- 2 Wei-Meng Lee , Beginning Android 4 Application Development
- 3 GBlake Meike , Programming Android

**eC 307 Data Mining and Data Warehousing**

**Unit 1 Data Warehouse-Introduction, Data warehouse features, Applications, Types of Data Warehouse, OLAP, OLTP, Data Warehousing, Integrating heterogeneous database, Function of data ware house tool, Meta data, Data cube, Data Mart, Virtual warehouse, Data warehouse delivery process, Data warehouse system process, Data warehouse Three Tier Architecture, Load Manager Architecture, Warehouse manager architecture, Data warehousing-OLAP, types of OLAP servers, OLAP operation, Multidimensional OLAP, MOLAP vs. ROLAP, Data Warehousing schema, Data warehouse Meta data-categories of meta data, Role of meta data, metadata repositories, Designing data mart, Data warehousing security, Data Warehousing Backup, Data warehousing future aspect.**

**Unit 2 Data Mining Fundamental Concepts, Data Mining Applications, Market analysis and management, Data mining task- Descriptive, classification and prediction, Data Mining issues, From data ware housing (OALP) to Data Mining( OLAM), Importance of OLAM, Data Mining Engine, Knowledge discovery, Data Mining system classification, Data Mining Query Language, DMQL.**

Unit 3 Association Rules Introduction and Overview, Discovering Association Rules, A Priori Algorithm, Partition Algorithm, Association Rules with item Constraints, Data Mining classification and prediction, classification and prediction issue, Data Mining decision tree Induction, Tree Pruning, Data Mining Bayesian classification, Data Mining Rule base classification, Rule Pruning, Data Mining Cluster Analysis, clustering methods / Partitioning Method. Introduction to Big Data. Challenges and Opportunities in Big Data Management. Introduction of Hadoop.

**Suggested Readings**

1. J. Han, M. Kamber, Data Mining: Concepts and Techniques, Morgan Kaufmann, 2007

**eC 308 Advanced Application Programming II**

Unit 1 PHP: PHP installation and Introduction, PHP Basics, Variables, Constants, Loops, String Functions, Receiving values at server from various form elements, Email Function, Arrays with Attributes, Date & Time, File handling, File upload, Library and User defined functions, Errors handling, Database handling, Object oriented programming, Class, Object, Inheritance, Inheritance types, Constructor and Destructor, Access specifiers, Scope resolution operator, Class constant, this operator, Abstract class and interface.

Unit 2 Use of API: Light Box, Live Chat, Paypal (Payment Gateway), Slide Show. Introduction to revision control-git, Introduction to frameworks.

Unit 3 Content Management System: Introduction to CMS, Model-view-control-ler, Web cache, Database access, mapping and setup, URL mapping. Working with Word press: Theme Integration, Adding pages and posts, Manage Menus, Manage Widgets, Plug-in. Working with Joomla: Joomla Installation, Template Integration, Adding content (articles management), Adding content (articles management).

**Suggested Readings**

1. Php & Mysql (English) 1st Edition, McGraw Hill Education (India) Private Limited, ISBN-10:1259029433.
2. Professional Web APIs With Php (English) 1st Edition, Wiley India Pvt Ltd, ISBN-10: 8126509457.
3. Gunther Birznieks, Scott Guelich, Shishir Gundavaram, Ajax and PHP: Building Responsive Web Applications, ISBN-10: 8184042442.
4. Professional Mobile Web Development With Wordpress, Joomla, And Drupal, Wiley India Pvt Ltd, ISBN-10: 8126531010.

**SEMESTER IV**

**eC 401 or eC 402 : Workshop on Change Management or Business Analytics:**

Candidate shall be required to attend a 10 hour workshop on Change Management or Business Analytics conducted by internal and external resource persons.

The workshop will be followed by a written test and viva voce test each carrying 50 marks each.

**eC 403 Industry Project Execution Report**

During the IV Semester students are required to undergo internship for a period of not less than 70 working days at an organisation :

1. With e-commerce as their business model ,
2. Producing e-commerce software, or
3. Operating Logistics and/warehousing services; etc.

The students are required to take up a significant project and execute it to the satisfaction of the project guide. The student should get a certificate from the organization.

The student should submit the project execution report in duplicate within 15 days of completion of the internship. The project report shall be evaluated by a panel of supervisors of the Center and shall carry 200 marks. A panel of experts from the industry shall evaluate the student based on a presentation made by the student and a Viva-Voce examination and shall carry 200 marks and 50 marks respectively, that comes to a total of 250 marks.

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