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□ Semester-VIth

Course Code	Course Name	External	Internal	Total	L	T	P	C
BCA-S307	Computer Network Security	75	25	100	4	0	0	4
BCA-S308	Information System: Analysis Design & Implementation	75	25	100	3	1	0	4
BCA-S309	E-Commerce	75	25	100	4	0	0	4
BCA-S310	Knowledge Management	75	25	100	3	1	0	4
BCA-S311	Major Project	-	-	150	0	3	6	5
BCA-S312	Presentation/Seminar based on Major Project			50				1
				600				22

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Course Code	Course Name	L	T	P	C
BCA-S307	Computer Network Security	4	0	0	4

UNIT-I

Introduction: Attack, Services and Mechanism, Model for Internetwork Security.

Cryptography: Notion of Plain Text, Encryption, Key, Cipher Text, Decryption and cryptanalysis; Public Key Encryption, digital Signatures and Authentication.

UNIT-II

Network Security:

Authentication Application: Kerberos, X.509, Directory Authentication Service, Pretty Good Privacy, S/Mime.

UNIT-III

IP security Architecture: Overview, Authentication header, Encapsulating Security Pay Load combining Security Associations, Key Management.

UNIT-IV

Web Security: Requirement, Secure Sockets Layer, Transport Layer Security, and Secure Electronic Transactions.

UNIT-V

Network Management Security: Overview of SNMP Architecutre-SMMPVI1 Communication Facility, SNMPV3.

UNIT-VI

System Security: Intruders, Viruses and Related Threats, Firewall Design Principles. Comprehensive examples using available software platforms/case tools, Configuration Management.

Reference Books:
1. W. Stallings, Networks Security Essentials: Application & Standards, Pearson Education, 2000.
2. W.Stallings, Cryptography and Network Security, Principles and Practice, Pearson Education, 2000.

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Course Code	Course Name	L	T	P	C
BCA-S308	Information Systems: Analysis, Design & Implementation	3	1	0	4

UNIT-I

Overview of System Analysis and Design: Systems Development Life Cycle; concept and Models: requirements determination, logical design, physical design, test planning, implementation, planning and performance evaluation, communication, interviewing, presentation skills; group dynamics; risk and feasibility analysis; group based approaches, JAD, structures walkthroughs, and design and code reviews; prototyping; database design software quality metrics; application categories software package evaluation and acquisition.

UNIT-II

Information Requirement Analysis: Process modelling with physical logical data flow diagrams, data modelling with logical entity relationship diagrams.

UNIT-III

Developing a Proposal: Feasibility study and cost estimation.

System Design: Design of input and control, design of output and control, file design/database design, process, user interface design, prototyping; software constructors; documentation.

UNIT-IV

Application Development Methodologies and CASE tools: Information engineering, structured system analysis and design, and object oriented methodologies for application development data modelling, process modelling, user interface design, and prototyping, use of computer aided software engineering (CASE) tools in the analysis design and implementation of information systems.

UNIT-V

Design and Implementation on OO Platform: Object oriented analysis and design through object modelling technique, object modelling, dynamic modelling and functional object oriented design and object oriented programming systems for implementation, object oriented data bases.

UNIT-VI

Managerial issues in Software Projects: Introduction to software markets; planning of software projects, size and cost estimates; project scheduling; measurement of software quality and productivity, ISO and capability maturity models for organizational growth.

Reference Books:
1. I.T.Haryszkiewycz, Introduction of System Analysis and Design, Pearson Education, (PHI) 1998.
2. V.Rajaraman, Analysis and Design of Information System, Pearson Education, 1991.
3. J.A.Senn, "Analysis and Design of Information Systems"
1. J.K.Whiten., L.D.Bentley, V.M.Beslow, "System Analysis and Design Methods", (Galgotia Publications Pvt.Ltd.) 1994

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Course Code	Course Name	L	T	P	C
BCA-S309	E-Commerce	4	0	0	4

UNIT-I

Introduction to E-Commerce: The Scope of Electronic Commerce, Definition of Electronic Commerce, Electronic E-commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce, E-Commerce in Perspective.

Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, Porter's Model, First Mover Advantage ,Sustainable Competitive Advantage, Competitive Advantage using E-Commerce, Business Strategy, Introduction to Business Strategy, Strategic Implications of IT, Technology, Business Environment, Business Capability, Exiting Business Strategy, Strategy Formulation & Implementation Planning, E-Commerce Implementation, E-Commerce Evaluation.

UNIT-II

Business-to-Business Electronic Commerce: Characteristics of B2B EC, Models of B2B EC, Procurement Management Using the Buyer's Internal Marketplace, Just in Time Delivery, Other B2B Models, Auctions and Services from Traditional to Internet Based EDI, Integration with Back-end Information System, The Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: The Nuts and Bolts, EDI & Business.

UNIT-III

Internet and Extranet : Automotive Network Exchange, The Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, Intranet Application Case Studies, Considerations in Intranet Deployment, The Extranets, The structures of Extranets, Extranet products & services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues.

Electronic Payment Systems : Is SET a failure, Electronic Payments & Protocols, Security Schemes in Electronic payment systems, Electronic Credit card system on the Internet, Electronic Fund transfer and Debit cards on the Internet, Stored – value Cards and E- Cash, Electronic Check Systems, Prospect of Electronic Payment Systems, Managerial Issues.

UNIT-IV

Public Policy: From Legal Issues to Privacy : EC- Related Legal Incidents, Legal Incidents, Ethical & Other Public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency & Censorship, Taxation & Encryption Policies, Other Legal Issues: Contracts, Gambling & More, Consumer & Seller Protection In EC.

UNIT-V

Infrastructure For EC : It takes more than Technology, A Network Of Networks, Internet Protocols, Web-Based client/ Server, Internet Security, selling on the web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues.

Reference Books:
1. David Whitely, " E-Commerce", Tata McGraw Hill, 2000
2. Eframi Turban, Jae Lee, David King, K. Michael Chung, "Electronic Commerce", Pearson Education, 2000

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Course Code	Course Name	L	T	P	C
BCA-S310	Knowledge Management	3	1	0	4

UNIT-I

Business Intelligence and Business Decisions: Modelling Decision Process; Decision support systems; Group decision support and Groupware Technologies.

UNIT-II

Executive Information and support Systems: Business Expert System and AI, OLTO & OLAP; Data Warehousing; Data Marts, Data Warehouse architecture; Tools for data warehousing.

UNIT-III

Multi- Dimensional analysis: Data mining and knowledge discovery; Data mining and Techniques; Data mining of Advance Databases.

UNIT-IV

Knowledge Management Systems: Concept and Structure KM systems, techniques of knowledge management appreciation & limitation.

Reference Books:
1. Decision support system, EIS, 2000
2. W.H.Inmon, "Building Data Warehousing", Willey, 1998.
3. Han, Jiawei, Kamber, Michelinal, "Data Mining Concepts & Techniques", Harcourt India, 2001

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Course Code	Course Name	L	T	P	C
BCA-S311	Major Project	0	3	6	5

Evaluation will be based on held after fourth semester and will be conducted by the college committee only.

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Course Code	Course Name	L	T	P	C
BCA-S312	Presentation/Seminar based on Major Project				1

Presentation/Seminar based on Major Project will be evaluated by external examiner only.