Proposed Syllabus by C.S.J.M. University, Kanpur.

Bachelors of Computer Application

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>L</th>
<th>T</th>
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</thead>
<tbody>
<tr>
<td>BCA-S307</td>
<td>Computer Network Security</td>
<td>4</td>
<td>0</td>
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</tbody>
</table>

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:**


UNIT-III

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

UNIT-IV


UNIT-V

**Network Management Security:** Overview of SNMP Architecture-SMMPV1 Communication Facility, SNMPV3.

UNIT-VI

**System Security:** Intruders, Viruses and Relate Threats, Firewall Design Principles.

Comprehensive examples using available software platforms/case tools, Configuration Management.

Referential Books:

Course Code  Course Name                                      L  T  P  C
BCA-S308    Information System: 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 modeling with physical logical data flow diagrams,
data modeling 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
modeling, process modeling, user interface design, 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 modeling technique, object modeling, dynamic modeling 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.

Referential Books:
   1998.
   Publications Pvt.Ltd.) 1994
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<tr>
<td>BCA-S309</td>
<td>E-Commerce</td>
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UNIT-I


UNIT-II

UNIT-III

**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.

Referential Books:
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<tr>
<td>BCA-S310</td>
<td>Knowledge Management</td>
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UNIT-I
Business Intelligence and Business Decisions: Modeling 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.

Referential Books:
1. Decision support system, EIS, 2000
3. Han, Jiawei, Kamber, Michelinal, “Data Mining Concepts & Techniques”, Harcourt India, 2001
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<td>BCA-S311</td>
<td>Major Project</td>
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<td>6</td>
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Evaluation will be based on held after fourth semester and will be Conducted by the college committee only.
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<tr>
<td>BCA-S312</td>
<td>Presentation/Seminar based on Major Project</td>
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Presentation/Seminar based on Major Project will be evaluated by external examiner only.