

MANGALORE UNIVERSITY
Department of Library and Information Science
Master of Library and Information Science

LSH552: INFORMATION TECHNOLOGY – III

Objectives:

- To study database design, development and management
- To know WINISIS and MS-Access
- To introduce the concept of digital library
- To understand the process of web programming, database connectivity
- To study the implications of Web technologies to library and information management.
- To understand internet tools and techniques
- To familiarize students with open sources library software

Course Outcomes (CO):

- CO1 Familiarizing students with internet, design, development of DBMS, web design and digital library using metadata standards.
- CO2 Skills for installing and customizing computer system application software like WINISIS,
- CO3 Understanding of topology and requirements of computer networks and type for networks available for accessing information online
- CO4 Knowledge of scripts and standards required for web design and programming.
- CO5 Clear understanding of purpose, methods and cyber laws related to internet and its usage
- CO6 Knowledge of computer hardware, software and other infrastructure required to develop digital library
- CO7 Familiar with metadata and other web standards to create digital libraries and open sources software available for creating digital repositories

- Unit 1 : Database: Design, Development and Management, Database Models, DBMS, RDBMS. Data mining and Data warehousing: Decision Support Systems (DSS) and Online Analytical Processing (OLAP). **06hrs**
- Unit 2 : Study of WINISIS and MS-Access: System Overview, system Installation, Database Construction, Techniques, Menus, Tools and Creation of database **08hrs**
- Unit 3 : Networks: Concept, Definition, Need, Uses. Network Topologies, Types of Networks LAN, MAN and WAN. Network Architecture, Network Protection and Security - TCP/IP, IPX. **06hrs**
- Unit 4 : Web design: Web Server, Web hosting, using web graphics, medias, Design tools – HTML, XHTML, Dreamweaver, CSS, Javascripts. Website – types, Web standards. **08hrs**

- Unit 7 : Digital Library Standards, Storage, Security and Open Source Software: Standards- MARC or MARC-21, Dublin Core Metadata, Z39.50. Storage-database and Security. Open source software like Greenstone, DSpace and Eprint, Digital Library Projects. **08hrs**
- Unit 5 : Internet: History, ISP, Internet Tools and Services, Electronic resources available on the Internet, WWW, E-Mail, Telnet, FTP, Internet Relay Chat. Search Engine, Gopher, Archie, Veronica, WAIS, Usenet/List Forum, PING, Web sites, Browser, Blogs, Semantic Web, Social Network, Cloud Computing, Regulation of Cyber Laws. **06hrs**
- Unit 6 : Digital Librarians: Meaning, Definition, Functions, Scope; Infrastructure required for setting up a Digital Libraries – Hardware, Software and Human ware, Library Materials, Digital Materials; Advantages and Disadvantages of Digital Libraries. Institutional Repositories **08hrs**

References:

1. Beiser, Karl: Essential guide to dBase III+ in Libraries. London, Meckler, 1987
2. Biddiscombe, Richard: End user revolution: CD-ROM, Internet and change role of the Information Professional. London, Library association, 1996
3. Burns, A: New Information Technology. 1984
4. Edmunds, R A: Prentice Hall Encyclopedia of Information Technology, 1987 Essential Guide dBase plus in Libraries. 1988
5. Faruthi, S N Ed.: Library Techniques and Technologies Perspectives in Multimedia Library Development. New Delhi, Kanishka, 1997
6. Kent, A and Galvin, T J Ed.: Information Technology: critical Choice for library Decision Makers. 1992
7. Martin M: Schaum's outline of Theory and problems of data processing
8. Menon, V V and Prasad, H N Ed.: Information Technology and National Development. Agra, Y K Publishers, 1994
9. Moorthy, A L : Information Technology applications in academic Libraries in India with emphasis on networking services and information sharing, Ahmedabad, INFLIBNET, 1997
10. Ojha, D C, Edd. : Computer Applications in Library and Information Science. Jodhapur, Scientific Publication, 1995
11. Parthasarathy, S : Computer Application to Libraries, IR and Networking. Bangalore, SaradaRanganathan Endowment for library science, 1986
12. Rouse, Rowena: CD_ROM and online computing, Electronics and Telecommunication databases, London, ASLIB, 1994
13. Satyanarayana, R : Information Technology and its facts. New Delhi, Manak, 1998
14. Unesco, Reference Manual and CDS/ISIS Pascal Manual, 1989
15. Zokoczy, P : Information Technology, An Introduction. Ed.2 1985
16. UNESCO. Information and communication technologies in development A. UNESCO perspective prepared - Paris UNESC, 1996
17. UNESCO. Reference Manual and CDS/ISIS Pascal Manual, 1989.
18. Prasher, R.G.: Indian Libraries in IT Environment, Medallion Press, Ludhiana, 2003.
19. Khaisar M. Khan, Mallaiah, Vishala B.K.: Proceedings of the National Conference on 'Democratization of Information using ICT: Role of Libraries for Social Enlightenment (DEMICT-2014), DLISc., Mangalagangothri, 2014, ISBN: 978-93-82845-33-1.