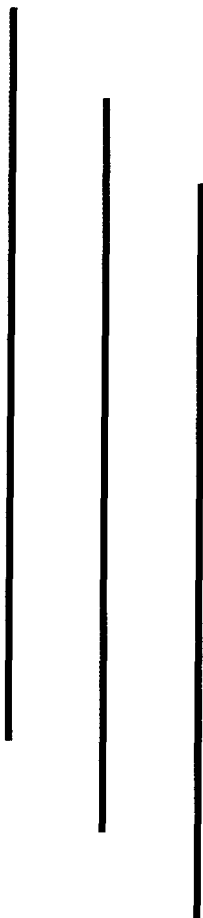


**SYLLABUS FOR MASTER OF LIBRARY AND INFORMATION
SCIENCE (MLISc.) UNDER CHOICE BASED CREDIT SYSTEM
(CBCS)**



**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
NORTH EASTERN HILL UNIVERISTY
SHILLONG, MEGHALAYA**

1. Objectives

- (a) To impart professional education and training to the students in organisation and management of different types of libraries and information centres.
- (b) To provide understanding of the basic principles and laws of Library and Information Science to the students and enable them to appreciate the functions, purposes of library profession and services.
- (c) To train the students in organisation, retrieval and dissemination of information using latest relevant technology, particularly information technology in order to meet the challenges of the present-day Knowledge Society.
- (d) To facilitate research in the field of Library and Information Science.

2. Admission Requirements

Candidates seeking admission to the course shall satisfy the conditions laid down by the University and notified before the commencement of each session from time to time.

3. Examinations

As per University rules and regulations notified from time to time.

4. Course Structure

The MLISc. Syllabus consists **72 Credits** spreading over **18 Courses**. Each Credit (1 Credit= 25 marks) will have **12 contact hours of teaching for theory** and **24 contact hours of teaching for practical**. Out of 72 Credits, **60 Credits are assigned to the Core Courses** and **12 Credits are assigned to the Open Courses**. It is a must that a student earns **12 Credits from the Open Courses**. A student can choose **any three Open Courses** either from those Open Courses offered by the Department or offered by any other Department across the University during the **2nd** and the **3rd** Semesters.

I SEMESTER			
LIS-C 101	Foundations of Library and Information Science	2 Credits	
LIS-C 102	Organization of Knowledge (Theory)	4 Credits	
LIS-C 103	Organization of Knowledge (Practice)	4 Credits	
LIS-C 104	Information Sources and Services	4 Credits	
LIS-C 105	Introduction to Information Technology	4 Credits	
II SEMESTER			
LIS-O 201	Library System Analysis and Design	4 Credits	Open
LIS-C 202	Organization of Knowledge (Theory)	4 Credits	
LIS-C 203	Organization of Knowledge (Practice)	4 Credits	
LIS-C 204	Library Software Packages (Practical)	2 Credits	
LIS-C 205	Library House Keeping	4 Credits	
III SEMESTER			
LIS-C 301	Information Retrieval	4 Credits	
LIS-C 302	Research Methodology in Library and Information Science	4 Credits	
LIS-C 303	Collection Development -I (one)	2 Credits	
LIS-O 304	Database Management System	4 Credits	Open
LIS-O 305	Information Communication Technology	4 Credits	Open
IV SEMESTER			
LIS-C 401	Management of Library and Information Systems	4 Credits	
LIS-C 402	Digital Libraries	4 Credits	
LIS-C 403	Information Users and their Needs	4 Credits	
LIS-C 404	Collection Development -II (two)	2 Credits	
LIS-C 404	Dissertation	4 Credits	

LIS-C 101: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

Credit I

Nature and scope of Library and Information Science; Types of Library and Information Systems; Five Laws of Library Science; Information and National Development.

Credit II

Library Legislation in India with special reference to North East India; Intellectual Property Rights (IPR); Activities and Role of Library and Information Professional Organizations; Professional Ethics.

TEXT BOOKS:

1. Borgman, Christine L. (2003). From Gutenberg to the Global Information Infrastructure: Access to Information in the Networked World, Cambridge, MIT Press
2. American Library Association, (2003). Information Policies: A Compilation of Position Statements, Principles, Statutes and other Pertinent Statements, Chicago, ALA
3. Brown, John Seely et al, (2002). The Social Life of Information, Boston, Harvard Business School Press
4. Feather, John (2000). The information society: A study of continuity and changes, 3 ed. London: Facet
5. Richard, Rubin E. (2000). Foundations of Library and Information Science, New York, Neal-Schuman
6. Bauer, Patricia (2000). Foundations of Library and Information Science, New York, Neal-Schuman
7. Markus, Keith E and Bergsten, C. F. (2000). Intellectual Property Rights in the Global Economy, Institute of International Economics
8. Venkatappaiah, Velaga (1994). Model library legislation: Model public library act and rules made therein for the constituent states and union territories, New Delhi, concept Publishing Co.
9. Chopra, Hans Raj (1989). Librarianship: As a profession, Jodhpur, Jain Brothers
10. Ranganathan, S. R. (1988). The Five Laws of Library Science, New Delhi, Sarada Ranganathan Endowment for Library Science
11. UNESCO (1960). National Libraries: Their problems and prospects, Paris

1. RECOMMENDED BOOKS:

1. Shontz, Priscilla K et al, (2002). Jump Start Your Career in Library and Information Science, New York, Scarecrow Press
2. Agarwal, U. K. (1999). Twentieth Century: Library Legislation in India, Udaipur, Shiva Publishers
3. Crawford, Walt (1998). Being Analog: Creating Tomorrow's Libraries, Chicago, American Library Association

LIS-C 102: ORGANISATION OF KNOWLEDGE (THEORY)**(a) Classification,**

Credit I

Library classification: need, purpose and principles Structure of DDC and CC

Credit II

Idea plane: categorisation of knowledge, canons and principles and postulates.

Verbal plane: canons and principles

(b) Cataloguing

Credit III

Library cataloguing: need purpose and principles. Forms and types of catalogue

Credit IV

Subject catalogue: Sears list of subject heading, chain indexing, Library of Congress Subject Heading (LCSH), Structure of AACR II/~~CCG~~**TEXT BOOKS:**

1. Rowley, Jennifer and Farrow, John (2000). Organising knowledge: an introduction to knowledge managing access to information, London, Gower Publications
2. Bowman, J H (2003). Essential cataloguing, London Facet
3. Kao, Mary L (2001). Cataloguing and classification for library technicians (2nd ed), New York, Haworth Press
4. Carter, R C ed. (2001). Managing cataloguing and the organisation of information: philosophies, practices and challenges at the onset of the 21st century, New York, Haworth Press
5. Krishan Kumar (2000.). Theory of classification, New Delhi, Vikas Publication
6. Krishan Kumar (2000.). Theory of cataloguing, New Delhi, Vikas Publication
7. Rangathan, S R (1989). Prolegomena to library classification 3rd ed., Bangalore, Sarada Ranganathan Endowment
8. Rangathan, S R (1989). Elements of library classification 3rd ed., Bangalore, Sarada Ranganathan Endowment

RECOMMENDED BOOKS:

1. Andrew, P G (2003). Cataloguing sheet maps: the basis, London, Howarth Press
2. Roe, Sandra K (2002). The audio visual cataloguing current, New York, Haworth Press
3. Cole, Jim and Jones, Wayne ed. (2002). E-serials cataloguing, New York, Haworth Press
4. Chan, Lois Mai (1994). Cataloguing and classification: an introduction, New York, McGraw Hill
5. Buchanan, Brian (1979). Theory of library classification, London, Clive Bingley
6. Needham, C D (1974). Organising knowledge in libraries, London, Andre Deutsch
7. Maltby, A (1972). Classification in the 1970s, London, Clive Bingley

LIS-C 103: ORGANISATION OF KNOWLEDGE (Practical)**(a) Classification,**

Classification of documents by Dewey Decimal Classification Latest Edition and Colon Classification Latest Edition in the following graded steps:

Credit I

Classification of documents having "**basic subjects**"

Credit II

Classification of documents having "**compound subjects**"

(b) Cataloguing

Practical cataloguing of books according to Anglo-American Cataloguing Rules-1988 edition with amendments 1999, 2002, 2002. with a Sears List of Subject Headings/LCSH in the following graded steps:

Credit III

Works of personal authorship; Works of shared responsibility; Works of mixed responsibility

Credit IV

Anonymous works; Works of Corporate authorship; Analysis

RECOMMENDED BOOKS:

1. Andrew, Paige, G. (2003). Cataloguing Sheet Maps: The Basics. New York: Haworth Press.
2. Cole, Jim and Jones, Wayne *ed.* (2002). E-Serials Cataloguing: Access to continuing and integrating resources via the Catalogue and the Web. New York: Haworth Press
3. Roe, Sandra K. *ed.* (2002). The Audiovisual Cataloguing/ New York: Haworth Press.

LIS-C 104: INFORMATION SOURCES AND SERVICES

Credit I

Definition and Scope of Reference and Information Services. Reference interview. Qualities, Qualifications and Role of Reference Librarian and Information Officer.

Credit II

Modes of Reference: Ready Reference and Long Range Reference Services. Enquiry Techniques, Literature Searches. Modes of Delivery: CAS, SDI, and FAQs.

Repackaging: Compilation of Current Awareness Lists/ Bibliographies/ Contents Lists/ Press Clippings.

Credit III

Sources of information. Types of reference and information sources. Bibliographical Control: National Bibliographies, Subject Bibliographies, Union Lists, Indexes and Abstracts,

Reference Books: Dictionaries, Statistical sources, Geographical sources, Encyclopaedias, Year Books, Directories, and Reviews.

Web Resources: Subject gateways.

Credit IV

Environmental Information Sources: organisations and institutions.

TEXT BOOKS:

1. Lipow, A.G. (2003). The Virtual Reference Librarian's Handbook, London: Library Solutions Press
2. David, R et al *Ed.* (2003). Implementing digital reference services: Setting standard making it real. London: Facet
3. Bauers, M (2001). Using the Internet as a Reference Tool : a how-to-do-it manual for librarians, London, Library Association Publishing
4. Sewa Singh.(2001) Handbook of International Sources on Reference and Information, New Delhi, CREST Publishing House
5. Navalani, K et al *ed.* (1999). Library and Information Services, Jaipur, Rawat Publication
6. Krishan Kumar (1991), Reference Services – 4th Edition, New Delhi, Vikas Publishing House.
7. Grogan, Denis J (1979) Practical Reference Work. London, Clive Bingley
8. Foskett, D.J.(1967) Information Services in Libraries – 2nd Edition, Hamden, Anchor Books

RECOMMENDED BOOKS:

1. Cooke, A. (2001) A Guide to Finding Quality Information on the Internet : selection and evaluation strategies, London, Library Association Publishing
2. Owen, T.(1996) Success at the Enquiry Desk, London, Library Association Publishing
3. Balay, R, *ed* (1992). Guide to Reference Books Covering Materials from 1985-1990, Chicago, American Library Association
4. Kemp, D.A. (1979). Current Awareness Services. London, Clive Bingley
5. Katz, William (1974). Introduction to Reference Work Vol. I-II, New York, McGraw Hill Book Company
6. Harrison, K.C.(1966) Facts at Your Fingertips : everyman's guide to reference books – 2nd Edition, London, Kenneth Mason

LIS-C 105: INTRODUCTION TO INFORMATION TECHNOLOGY

Credit I

Introduction: Definition, Scope and Objectives

Basic computer components and computer system concept; Input and output devices; Memory and Storage Devices

Credit II

Motherboard; CPU, RAM, I/O Units, HDD, A/V and Graphic Cards; Installation, Partition & Formatting, Power Supply

Credit III

Operating system: *characteristics and functions;*

DOS, Windows, Linux, Unix and Windows

Office Packages: *word processor, spreadsheet, presentation tools*

Credit IV

Practical: O/S, Word Processor, Spreadsheet and Presentation tools

TEXT BOOKS:

1. Martin, E W (1999). Managing information technology, New Jersey, PH
2. White, Ron (1999). How Computer Work, New Delhi, Techmedia
3. Ram, B (1993). Fundamentals of microprocessors and microcomputers, Dhanpat Rai, New Delhi
4. Rowley, J E (1993). Computer for Librarians, London, Clive Bingley
5. Sanders, Donald H. (1988). Computer today, New York, McGraw Hill

RECOMMENDED BOOKS:

1. Sinha, P K (2002). Computer fundamentals, New Delhi, BPB
2. Patnaik, Srikanta (2001). First Text book on Information Technology, New Delhi, Dhanpat Rai

LIS-O 201: LIBRARY SYSTEM ANALYSIS AND DESIGN**Credit I**

System Concepts and Information System; System Development Life Cycle; Role of System Analyst

Credit II

Planning and Investigation: Information gathering; Structured analysis Tools: Flow Charts, DFD; Feasibility and Cost/Benefit Analysis

Credit III

System Design: Process and Stages; I/O and form design; File Organization and Database Design

Credit IV

Testing, Quality Assurance, Implementation, Maintenance, Project Scheduling, Security, Recovery and Ethics.

TEXT BOOKS:

1. Kasyhap, M M (1999). Computer based library information systems designing technique. New Delhi: Sterlings
2. Murdick, R G et al (1999). Information systems for modern managements, India, PHI
3. Rajaraman, V (1998). Analysis and design of information systems, India, PHI
4. Kendall, Penny A (1996). Introduction to system analysis and design: a structured approach, Chicago, Irwin.
5. Fertuck, Len (1995). System analysis and design: with modern methods, Dubuque, Business and Educational
6. Rowley, Jennifer (1990). The basics of system analysis and design fro information managers, London, Facet
7. Bertalanffy, L. Von (1983). General system theory: foundations, developments and applications. Penguin
8. Chapman, Edward et al (1970). Library system analysis guidelines, New York, John Wiley

RECOMMENDED BOOKS:

1. Rowley, J E (1996). The basics of information systems, London, Facet
2. Phillips, Charles L (1995). Digital control system analysis and design, New Jersey, Prentice Hall

3. Kashyap, M M (1993). Database systems: design and development, New Delhi, Sterling
4. Lasxlo, Ervin (1984). Introduction to system philosophy, New York, Gordon and Breach
5. Cough, Chet (1978). System analysis in libraries, London, Clive Bingley
6. Bingham, J E (1972). Handbook of system analysis, London McMillan

LIS-C 202: ORGANISATION OF KNOWLEDGE (THEORY)

(a) Classification

Credit I

Notational plane: qualities, types, canons and mnemonics

Credit II

Devices: Subject device, chronological device, geographical device common isolates, super imposition device, classic device

Book numbers and collection numbers.

Automated library classification

(b) Cataloguing

Credit III

Shared cataloguing; principles and methods. Consortia, OCLC

Credit IV

Bibliographic formats: MARC 21, ISBN, ISSN, CCF, ~~UNICODE~~, X

Authority Files

TEXT BOOKS:

1. Bowman, J H (2003). Essential cataloguing, London Facet
2. Kao, Mary L (2001). Cataloguing and classification for library technicians (2nd ed), New York, Haworth Press
3. Carter, R C ed. (2001). Managing cataloguing and the organisation of information: philosophies, practices and challenges at the onset of the 21st century, New York, Haworth Press
4. Rowley, Jennifer and Farrow, John (2000). Organising knowledge: an introduction to knowledge managing access to information, London, Gower Publications
5. Krishan Kumar (2000). Theory of classification, New Delhi, Vikas Publication
6. Krishan Kumar (2000). Theory of cataloguing, New Delhi, Vikas Publication
7. Rangathan, S R (1989). Prolegomena to library classification 3rd ed., Bangalore, Sarada Ranganathan Endowment
8. Rangathan, S R (1989). Elements of library classification 3rd ed., Bangalore, Sarada Ranganathan Endowment

RECOMMENDED BOOKS:

1. Andrew, P G (2003). Cataloguing sheet maps: the basis, London, Howarth Press
2. Cole, Jim and Jones, Wayne ed. (2002). E-serials cataloguing, New York, Haworth Press
3. Roe, Sandra K (2002). The audio visual cataloguing current, New York, Haworth Press
4. Chan, Lois Mai (1994). Cataloguing and classification: an introduction, New York, McGraw Hill
5. Buchanan, Brian (1979). Theory of library classification, London, Clive Bingley

6. Needham, C D (1974). Organising knowledge in libraries, London, Andre Deutsch
7. Maltby, A (1972). Classification in the 1970s, London, Clive Bingley

LIS-C 203: ORGANISATION OF KNOWLEDGE (Practical)

(a) Classification

Classification of documents by Dewey Decimal Classification Latest Edition and Colon Classification Latest in the following graded steps:

Credit I

Classification of documents requiring use of "**common sub divisions and other auxiliaries**"

Credit II

Classification of documents having "**complex subjects**"

Classification of documents having "**complexities of mixed nature**"

(b) Cataloguing

Cataloguing of books according to Anglo-American Cataloguing Rules-1988 edition with amendments in 1999, 2002, 2002. with a Sears List of Subject Headings/Library of Congress Subject Headings(LCSH) in the following graded steps:

Credit III

Serials publications / *Analytical Entries*

Non-book material: cartographic material, theses and audio visual material etc.

Credit IV

Internet & multimedia resources: metadata including other digital material.

(Students are expected to do computerised cataloguing using MARC/CCF Format)

RECOMMENDED BOOKS:

1. Andrew, Paige, G. (2003). Cataloguing Sheet Maps: The Basics. New York: Haworth Press
2. Cole, Jim and Jones W ed. (2002). E-Serials Cataloguing: Access to continuing and integrating resources via the Catalogue and the Web. New York: Haworth Press,
3. Roe, Sandra K (2002). The Audiovisual Cataloguing. New York: Haworth Press, 2002.

LIS-C 204: LIBRARY SOFTWARE PACKAGES (Practical)

Credit I

WINISIS

System Overview, system installation, Menus, Windows, Dialog Boxes, Search Language, Formatting Language, Adaptation to Local Requirements.

Practical: Creation and management of Database in WINISIS

Credit II

SOUL (Software for University Libraries)

Overview, Installation, Backup, Administrative Module, Acquisition Module, Catalogue Module, Circulation Module, Serial Module, OPAC.

Practical: Using Library Software Package: SOUL

TEXT BOOKS:

1. WINISIS Manual. UNESCO, 1993
2. SOUL Manual. Infilbnet, 2002

LIS-C 205: LIBRARY HOUSE KEEPING OPERATIONS

The students shall work daily for two hours in the NEHU Central Library to gain practical and clinical experience. A diary containing description of the daily jobs performed will be maintained by the students in the format prescribed by the Department. The job diary will be signed by the Teacher-in-charge of the course. In addition to it, the students of the Second Semester will submit a report on the Libraries visited during study tour. The diaries and study tour reports will be evaluated by a committee constituted for the purpose. The Committee will also conduct Viva Voce.

The Course is divided into four Credits:

Credit I- Continuous/Internal Assessment; Credit II- Job Diary; Credit III- Study Tour Report; Credit IV- Viva Voce

LIS-C 301: INFORMATION RETRIEVAL

Credit I

Fundamentals: information and information retrieval. Nature, characteristic and structure of information retrieval systems. Content analysis

Credit II

Indexing languages: concepts, theories and methods. Index models: free text or controlled text indexing, automated indexing systems. Vocabulary control- semantics/syntactical structure. Thesaurus and its construction.

Credit III

Principles and practices of searching various information sources. Types of search: Boolean and proximity search, fuzzy search, iterative search etc. Search strategies: querying, interpretation, execution, text searching, and feedback. Internet search strategies: web search engines, search tools, Z39.50 and metadata. Presentation and evaluation of search results.

Credit IV

Design and evaluation of information retrieval model. Measurement and evaluation of indexing and IRS: precision/recall. Trends in IR Models.

Laboratory exercises and assignments using web search engines and online systems

TEXT BOOKS

1. Greenberg, Jane (2000). Metadata and Organizing Educational Resources on the Internet, New York: Haworth Press.
2. Internet Searching and Indexing: The Subject Approach. New York: Haworth Press, 2000.
3. Baeza-yates, Richardo et al. (1999). Modern Information retrieval. Addison Wesley.
4. Ellis, David (1996). Progress and problems in Information Retrieval. London: Library Association.
5. Losee, Robert M. (1998). Text retrieval and Filtering: Analytical Models of performance. London: Kluwer
6. Fugman, Robert (1993). Subject indexing and analysis. Theoretical foundations & Practical advice. Frankfurt, Index Verlag.
7. Meadow, Charles T. (1992). Text information retrieval system. Academic Press,.

8. Aitchison, Jean and Alal Gilchrist (1990). Thesaurus construction. A practical manual ASLIB.
9. Foskett, A C. (1992). Subject approach to information. London, Clive Bingley.
10. Convey, John. (1992). Online Information Retrieval: An Introductory manual to principles and practice. 4th ed. London:
11. Soergel, Dagobert (1985). Organizing information. Principles of database & retrieval systems, Academic Press.

RECOMMENDED BOOKS

1. Convey, John (1992). On-line information retrieval. An introductory annual to principles and practices. London Library Associations Publishing.
2. Austin, Derek (1987). PRECIS. Ed.2. The British Library.
3. Chan, Lois Mai et al (1985). Theory of subject analysis. Littleton Libraries, Unlimited Inc.
4. Dym, Eleanor D. (1985). Subject and information analysis. New York, Marcel Dekker.
5. Milstead, Jessica L. (1984). Subject access system. Alternatives in design Academic Press.
6. Lancaster, F W. (1977). The measurement and evaluation of Library Science. Information Sources Press.
7. Soergel, Dagobert (1974). Indexing languages & Thesaurus Construction & Maintenance. Los Angeles, Melville Pub. House.
8. Wellish Hans & Wilson, T D. (1972). Subject retrieval in the seventies. Greenwood Pub.
9. Vickery B C. (1971). Techniques of Information retrieval. London: Butterworths.
10. Borko, Harold and Charles L. Dernier (1970). Indexing concepts and methods. Academic Press.
11. Vickery, B C. (1968). On retrieval system theory. London: Butterworths.
12. Sharp, John R. (1968). Some fundamentals of Information Retrieval. Andre Deutsch, Grafton Book.
13. Becker, Joseph and Robert M Hayes (1967). Information storage and retrieval tools elements & theories. New York, John Wiley.
14. Sharp, Harold S. (1964). Readings in Information Retrieval. London. The Scarecrow Press.
15. Grolier, Eric de. (1962). A study of general categories applicable to classification and coding in documentation UNESCO.

LIS-C 302: RESEARCH METHODOLOGY IN LIBRARY AND INFORMATION SCIENCE

✓ Credit I

Research Design: Types of research design; Identification of problem; Designing research proposal

✓ Credit II

Methods: Historical Method; Scientific Method, Descriptive Method; Survey Method and Case Study

Data collection tools and techniques: Questionnaire; Schedule; Interview; Observation etc.

✓ Credit III

Bibliometrics: Lotka's Law, Bradford's Law, Zipf's law, Citation Analysis, Co-citation Coupling, Bibliographic Coupling

Credit IV

S.K.
Data Analysis and Interpretation: Descriptive Statistics-Measures of Central Tendency; Mean, Mode, Median; Tabulation and Generalisation; Measures of dispersion, variance and covariance; Standard Deviation Graphical presentation of data: Chi Square Test, bar, pie-line graphs, histograms etc.

Statistical Packages-SPSS or Statistica

TEXT BOOKS:

1. Trochim, William (2002). Research Methods Knowledge base 2nd ed., Cincinnati, Alemeic Dog Publishing
2. Vaughan, Liwen. (2001). Statistical methods for Information professionals: A Practical painless approach to understanding, using and interpreting statistics. N.J.: Information Today.
3. Moore, Nick (2000). How to do research: the complete guide to designing and managing research projects, 3 ed. London: Facet
4. Borgman, Christine L., ed. (1990). Scholarly Communication and Bibliometrics. Newbury Park, CA: Sage Publications, Inc.,.
5. Sharma Pandey, S. R. (1990). Universe of Knowledge and Research Methodology, Delhi, Kent Publications
6. Krishan Kumar (1992). Research Method in Library and Information Science, Delhi, Har-Anand Publications
7. Powel, Ronald R. (1991). Basics Research Methods for Librarians. 3rd Ed. Norwood NJ: Ablex.
8. Busha, Charles H and Harter, Stephen. (1980). Research Methods in Librarianship. NY: Academic Press.

LIS-C 303: COLLECTION DEVELOPMENT – I (One)

Credit I

Need for collection development, Acquisition policy and principles

Credit II

Planning for need based collection development, budgeting and distribution, criteria and methods of selection

TEXT BOOKS:

1. Jenkins, Clare and Mary Morley (1996). Collection management in academic libraries. Delhi: Jaico.
2. Elizabeth, Futas (1994). Collection development policies and procedures. 3rd ed. Oxford Press
3. Mosher, Paul (1993). Collection Management for 1990's: Proceedings of the Midwest and development institute, University of Illinois at Chicago, August 17-20, 1989/ ed by Joseph J Branin, Chicago: ALA
4. Osburn, Charles B. and Ross Atkinson (1991). Collection management: a new treatise. London: Jai Press.
5. Katz, William (1980). Collection development: the selection of material for libraries. New York: Holt Rinehart and Winston.

ARTICLE REFERENCES:

1. Representative collection development policy statements. <http://academic.uof.edu/organisation/codes/reppol.html>
2. Rabine, J L and Brown, L A (2000). The selection connection creating an internet webpage for collection development. Library resources & technical services, 44 (1), 249-299.
3. Naidu, MKR (2001). Creation and management of digital resources. Caliber 2001. Ahmedabad: INFLIBNET, 294-299.

LIS-O 304: DATABASE MANAGEMENT SYSTEM

Credit I

Introduction; Database System Concept; Database System Architecture; Data Modelling using the Entity Relationship (ER) Model; Enhanced Entity Relationship (EER).

Credit II

The Relational Data Model: Relational Constraints; Relational Database Standard; Functional Dependencies; Normalization for Relational Databases; Relational Database Design

Credit III

Object – Oriented Databases Concepts; Object Database Standards, Languages and Design; Object Relational & Extended Database System.

Credit IV

Data Warehousing, Data Mining and Metadata; Emerging Database Technologies and Applications.

TEXT BOOKS:

1. Elmasri, Ramez and Navathe, Shamkant B (2003). Fundamentals of database system, London, Addison—Wesley
2. Kasyhap, M M (1999). Computer based library information systems designing technique. New Delhi: Sterlings
3. Council on library and information resources (2000). Authenticity in a digital environment, Washington DC, Council on Library and Information Resource.
4. Date, C J (2000). An introduction to database system (7th ed), Singapore, Pearson Education

5. Underwood, P G and Hartley, D (1993). The basics of data management for information services, London, Facet
6. Willits, John (1992). Database design and construction: an open learning course for students and information managers, London, Library Association
7. Larson, James A (1982). Database management system anatomy, Lexington, Lexington Books

RECOMMENDED BOOKS:

1. Jones, Wayne et al *ed.* (2002). Cataloguing the Web: Metadata, AACR, and MARC 21. Lanham, Scarecrow Press
2. Kashyap, M M (1993). Database system: design and development, New Delhi, Sterling

LIS-O 305: INFORMATION COMMUNICATION TECHNOLOGY

Credit I

Communication Technology: fundamentals; Basic Telecommunication System; Transmission Media; Data Transmission Mode; Protocols; OSI Reference Models and TCP/IP

Credit II

Network Topologies; Types of Network: LAN, WAN, CD-ROM Network: NAS, SAN;
Types of LAN: Ethernet, FDDI, ATM
Network Components: cables, switches, hubs, bridges, repeaters, routers;

Credit III

INTERNET: Basic Features and Tools; Online Information Services; Internet Security;
Connectivity: PSTN, ISDN, Leased Line, Digital Subscriber Line, VSAT;

Credit IV

Fundamentals of Web Page and Web Hosting
Web Browsers; Web Servers; Web Tools; Email: SMTP, POP3, Webmail, etc.;
Search Engines and Web Search Formulation

TEXT BOOKS:

1. Tanenbaum, Andrew S. (4th Edition). Computer Networks, New Delhi, Prentice Hall
2. Ed Karol. The Whole Internet. O'Reilly & Associates Inc.
3. Valerie Quericia. Internet in a nutshell.
4. Martin, Michael J (2000). Understanding the network: a practical guide to internetworking, Indianapolis, New Riders
5. Bradley, Phil (2000). World Wide Web: how to design and construct web pages, London, ASLIB

RECOMMENDED BOOKS:

1. Poulter, Alan et al (1999). The library and information professional guide to the world wide web, New York, Facet
2. Sim, S and Davies, J (1998). The internet and beyond, London, Chapman & Hall.
3. Demsey, L et al ed. (1997). Networking and the future of the libraries 2: managing the intellectual records, New York, Facet
4. Lloyd – Evans, Robert (1996). Wide area network performance and optimization: practical strategies for success, Harlow, Mass. Reading
5. Cashin, Jerry (1995). High – Speed networking: Technologies and implementation, Charleston, Computer Technology Research Corp
6. Bandra, S K and Jaiswal, S (1994). Local area Networks, New Delhi, Golotia
7. Thomas, Charles F. (2002). Libraries, the Internet, and scholarship: tools and trends converging, New York, Marcel Dekker
8. Held, Gilbert (2003). Ethernet networks, design, implementation, operation, management (4th Ed.), London, New York
9. Brophy, Peter (2001). The library in the twenty – first century: new services for the information age, London Library Association

LIS-C 401: MANAGEMENT OF LIBRARY AND INFORMATION SYSTEMS

Credit I

Management- Concept, Functions and Principles; Schools of Management Thought– Classical, Scientific, Behavioural, Decision Theory, Contingency Approach, Systems Approach.

Credit II

Planning- Concept, Need and Types; Management by Objectives (MBO); Decision Making; Total Quality Management (TQM).

Credit III

Human Resource Management- Manpower planning; Job Analysis, Job Description and Job Evaluation; Recruitment Procedures; Leadership; Motivation; Communication; Change Process; Organizational Manual; Annual Report.

Credit IV

Budgeting- Principles and Types of Budgeting: Line Budgeting, Performance Budgeting, Programme Budgeting, Planning Programming Budgeting System (PPBS), Zero-Based Budgeting System (ZBBS); Marketing of Information Products and Services.

TEXT BOOKS:

1. Kotler, Philip (2003) Marketing management, 11th ed., New Delhi, Pearson,
2. Drucker, Peter F. (2002). Management Challenges for the 21st Century, Oxford, Butterworth Heinemann,
3. Rowley, Jennifer (2001). Information marketing, Aldershot, Ashgate Publishing Limited
4. Paton, Robert A. (2000) Change management, Response, New York
5. Chabhra, T. N. et all (2000). Management and organization, New Delhi, Vanity Book International.

6. St. Clair, Guy (1997). Total Quality Management in information services, London, Bowker-Saur,
7. Beardwell, Ian and Holden, Len (1996). Human resource management: A contemporary perspective, U. K., Longman
8. Bryson, Jo, (1996). Effective library and information management, Bombay, Jaico Publishing House
9. Chandan, J S, (1994). Management theory and practice, New Delhi, Vikas Publishing House

RECOMMENDED BOOKS:

1. Ghoshal, Sumantra (2000). Managing change, New Delhi, Viking,
2. Sharma, S. (1999). Management in New Age, New Delhi, New Age International
3. Kaagan, Stephen S. (1999). Leadership games, New Delhi Response Books
4. Cartin, Thomas, J. (1998). Principles and practices of organization, New Delhi, Prentice Hall of India
5. Stoner, James A F (et al) (1996). Management, 6th ed., New Delhi, Prentice Hall of India
6. Chopra, H.S. (1996). Information marketing, New Delhi, Rawat Publications
7. Weilrich, Heinz and Koontz, Harold (1994). Management: a global Perspective, 10th ed., New York, McGraw Hill Inc.
8. Narayana, G J, (1991). Library and Information Management, New Delhi, Prentice Hall of India
9. Prasad, L M, (1989). Principles and practice of management, New Delhi, Sultan Chand

LIS-C 402: DIGITAL LIBRARY

Credit I

Definitions and evolution; Benefits and limitations; Applications and examples; Designing, Planning and Funding;

Credit II

Economic, legal and social issues;
Software for DLs and Metadata Standards;

Credit III

Architecture and technological environment; Information storage;
Content publishing; Content organization; Search and retrieval; Access management;

Credit IV

Targeting; Preservation and archiving; Evaluation;
Project planning and management;

TEXT BOOKS:

1. Michael Lesk. Practical digital libraries – Books, Bytes and Bucks. Morgan Kaufmann, 1997.
2. Peter Noerr. The Digital library toolkit. Second edition. Sun Microsystems, March 2000. (www.sun.com/products-n-solutions/edu/libraries/digitaltoolkit.html)
3. William Y Arms. Digital libraries. MIT Press, 2000.

4. NCSI-NISSAT workshop on "Developing digital libraries using open source software - Eprints Archive Software and Greenstone Digital Library Software", 15-20 April 2002. (<http://144.16.72.189/opendl/>)
5. NCSI training course on "Webmaster/ Content Manager", 10-13 July 2001. (<http://144.16.72.189/webmaster/>)
6. Current journals and resources on the Internet.

RECOMMENDED BOOKS:

1. Hodges, Patricia et al (2003). Digital libraries: a vision for the 21st century, An Arbor, University of Michigan (University of Michigan Library Press)
2. Lee, S T (2000). Digital imaging: a practical handbook, New York, Facet
3. Chowdhury, G G and Chowdhury, Sudatta (2003). Introduction to digital libraries, London, Facet.
4. Stern, David ed. (1999). Digital libraries: philosophies, technical design considerations, and example scenarios, New York, Haworth Press
5. Wilkinson, Ross et al (1998). Document computing: technologies for managing electronic document collections, Boston, Kluwer Academic Publishers.
6. LaGuardia, Cheryl and Mitchell, Barbara A. *ed.* (1998). Finding common ground: creating the library of the future without diminishing the library of the past, New York, Neal – Schuman Publishers
7. German, G E *Ed.* (2002). International yearbook of library and information science, 2002-2003. The digital factor in Library and Information Services. London: Facet

LIS-C 403: INFORMATION USERS AND THEIR NEEDS

Credit I

Information users: information needs and information seeking behaviour; Categories of users including ethnic groups, information transfer.

Credit II

Models of information needs and information seeking behaviour with special reference to model: Wilson, Belkin, Davis Ellis, Kulthau and Brenda Dervin.

Credit III

Methodology and evaluation of user studies: quality paradigms. Data collection methods: questionnaire, interview, observation, case study, citation analysis and interpretation of results.

Credit IV

User education: goals and objectives, methodology, media and techniques.

TEXT BOOKS:

1. Case, D. O (2002). Looking for Information : a survey of research on information seeking, needs and behaviour, California, Academic Press
2. Choo, Chun Wei et. al. (2000). Web Work : information seeking and knowledge work on the world wide web, Massachusetts, Kluwer Academic Publications
3. Nicholas, David (2000). Accessing information needs: tools, techniques and concepts for the internet age (2nd Ed), London, ASLIB
4. Lange, A. et. al. (eds.) (1999). Information Seeking in the Online Age: principles and practice, Michigan, K.G.Saur

5. Wilson, T.D. and Walsh, C. (1996). *Information behaviour: an interdisciplinary perspective*, Sheffield, University of Sheffield, Department of Information Studies
6. Marchionini, Gary. (1995). *Information Seeking in Electronic Environment*, New York, Cambridge University Press
7. Steinke, C. (1991). *Information Seeking and Communicating Behaviour of Scientists and Engineers*, New York, Haworth Press
8. Varlejs, J. (1987). *Information Seeking: basing services on users' behaviour*, North Carolina, McFarland Company
9. Malley, I. (1984). *The Basics of Information Skills* London, Clive Bingley
10. 10. Chen, C. (1982). *Information Seeking : assessing and anticipating user needs*, New York, Neal Schuman
11. Line, M.B. (1967). *Library Surveys* London, Clive Bingley
12. Fjalbrant, N. and Stevenson, M. (1978). *User Education in Libraries* London, Clive Bingley

RECOMMENDED BOOKS:

1. Shokeen, A. etc. (Eds.) (2001). *Information : management, sources and other studies*, New Delhi, Ess Ess Publications
2. Satish, N.G. (1994). *Attitude Towards Information : a study of social scientists*, New Delhi, Concept Publishing Company
3. Voight, M.J. (1961). *Scientists approach to information* Chicago, ALA

LIS-C 404: COLLECTION DEVELOPMENT – II (Two)

Credit I

Sources of collection development: printed media, non-printed media and e-resources

Credit II

Evaluation of various types of sources, models of collection building

TEXT BOOKS:

6. Jenkins, Clare and Mary Morley (1996). *Collection management in academic libraries*. Delhi: Jaico.
7. Elizabeth, Futas (1994). *Collection development policies and procedures*. 3rd ed. Oxford Press
8. Mosher, Paul (1993). *Collection Management for 1990's: Proceedings of the Midwest and development institute*, University of Illinois at Chicago, august 17-20, 1989/ ed by Joseph J Branin, Chicago: ALA
9. Osburn, Charles B. and Ross Atkinson (1991). *Collection management: a new treatise*. London: Jai Press.
10. Katz, William (1980). *Collection development: the selection of material for libraries*. New York: Holt Rinehart and Winston.

ARTICLE REFERENCES:

4. Representative collection development policy statements.
<http://academic.uof.edu/organisation/codes/reppol.html>

5. Rabine, J L and Brown, L A (2000). The selection connection creating an internet webpage for collection development. Library resources & technical services, 44 (1), 249-299.
6. Naidu, MKR (2001). Creation and management of digital resources. Caliber 2001. Ahmedabad: INFLIBNET, 294-299.

LIS-C 405: DISSERTATION & VIVA VOCE

Theoretical and methodological preparation for this paper begins in the 3rd Semester with Course No. LIS-C 302: Research Methodology in Library and Information Science. Allocation of Supervisors for this paper is done during the beginning of the 3rd semester and the students are given necessary guidance and thus the dissertation works practically begins from the 3rd semester itself.

Students are required to give seminars on their chosen topics for continuous/internal assessment.

The students will require to write a dissertation on the following themes:

1. Literature review of any current topic in library and information science
2. Conducting case studies and surveys of libraries located in the north east
3. Designing a database using a library software package
4. Studies related to information retrieval on internet
5. Any other studies related to library and information science