LS 401: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

Unit 1	:	**Library as a Social Institution:** Social and Historical foundations of Library; Different types of Libraries – their distinguishing features and functions; Role of Library in formal and informal education	**10hrs**
Unit 2	:	**Normative principles of Library and Information Science:** Five Laws of Library Science; Implications of Five Laws in Library and Information Activities	**10hrs**
Unit 3	:	**Library Development:** Development of Libraries in India with special reference to Karnataka	**10hrs**
Unit 4	:	**Laws relating to Libraries and Information:** Library Legislation – need, purpose and essential features; Library Legislation in India – problems and prospects; Overview of Public Library Acts in Indian States; Detailed study of Karnataka Public Library Act 1965; Press and Registration Act and Delivery of Books (Public Libraries) and News paper Act, 1954 and 1956; Copyright Act and Intellectual Property Rights (IPR)	**10hrs**
Unit 5	:	**Library and Information Profession:** Attributes of a Profession; Librarianship as a Profession; Professional Ethics and Qualities; Professional Education and Research	**10hrs**
Unit 6	:	**Professional Associations:** Professional Associations–Objectives and Functions; Role of Professional Associations in Library Development; Regional Library Association–Objectives, Functions and Activities, KALA; National Library Associations-Objectives, Functions and Activities. ILA, IATLIS, IASLIC; International Library Associations–Objective, Functions and Activities IFLA, ALA, LA; Promoters of Library and Information Services, National level, RRRLF, International Level - UNESCO.	**10hrs**
Unit 7	:	**Public Relations and Extension Activities:** Concept, Definition and Scope; Facets and Programmes; Publicity and Extension, Outreach Activities; Library Path Finders (Guides)	**10hrs**

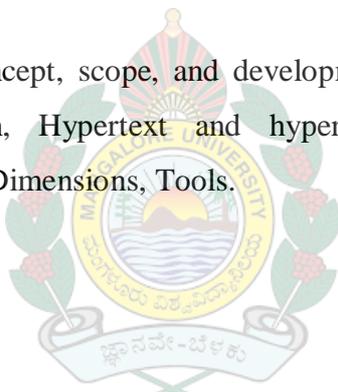## LS 402: INFORMATION PROCESSING: CLASSIFICATION

Unit 1	:	Library classification: Definition, meaning, objectives, purpose and functions. General theory of classification, Theory of knowledge classification, Theory of book classification	**10hrs**
Unit 2	:	Universe of Knowledge: Structure, attributes, Modes of formation of subjects, Call number and its structure.	**10hrs**
Unit 3	:	Postulational approach to classification: Planes of work and Canons of Classification	**10hrs**
Unit 4	:	Fundamental categories: Facet analysis and facet sequence, Phase relations, Common Isolates.	**10hrs**
Unit 5	:	Notational system: Meaning, need, functions and types, mnemonics, Hospitality in array and chain, Devices.	**10hrs**
Unit 6	:	Study of selected schemes of classification: Dewey Decimal Classification, Universal Decimal Classification, Colon Classification.	**10hrs**
Unit 7	:	Classification of e-resources ; Trends in Classification	**10hrs**

LS 403: INFORMATION PROCESSING: CATALOGUING

Unit 1	:	Library Catalogue-meaning, definition, need. Purpose and functions of library catalogue. Physical forms, Inner forms; Different kinds of entries	**10hrs**
Unit 2	:	Normative Principles: Laws, Canons and Principles of Catalogue	**10hrs**
Unit 3	:	Subject Headings: Chain Procedure, Sears List of Subject Headings, Library of Congress Subject Headings	**10hrs**
Unit 4	:	Study of Major Catalogue Codes; AACR (latest edition); Filing rules and procedures; Online Public Access Catalogue (OPAC)	**10hrs**
Unit 5	:	Standardization of Bibliographic Description- ISBD (M), ISBD(S), ISBD (NBM); Bibliographic Record Format-(UNIMARC, CCF)	**10hrs**
Unit 6	:	Co- operative, Centralized and Union Cataloguing	**10hrs**
Unit 7	:	Current trends in Cataloging	**10hrs**

LS 404: INFORMATION TECHNOLOGY – I

| Unit 1 | : | Introduction to computer: History and Development of Computers, Generations of Computers, Types of Computers, Limitations of Computers | **10hrs** |

| Unit 2 | : | Computer Hardware: Basic Units of Computer - Arithmetic/Logic Unit, Control Unit, Input Unit, Output Unit, and Memory Unit. | **10hrs** |

| Unit 3 | : | Computer Software: Systems Software - Operating Systems - MS DOS, MS WINDOWS, Multi - User Operating Systems like Linux, Unix, etc.., Application Software – Word Processing (MS Word) MS Excel, MS Power point presentation. | **10hrs** |

| Unit 4 | : | Data Representation and File Organization: Binary code, Bit, Byte, Standards- ASCII, ISCII, UNICODE, File Organization. | **10hrs** |

| Unit 5 | : | Programming Languages: Machine Languages, Assembly Languages, High-Level languages, Generations of Programming Languages, Flow- Charting. | **10hrs** |

| Unit 6 | : | Multimedia Technology: Concept, scope, and developments, Multimedia PC, Audio and video, image representation, Hypertext and hypermedia, Hardware and Software Requirements, Animations – Dimensions, Tools. | **10hrs** |

| Unit 7 | : | DTP and Graphics | **10hrs** |

LS 405: INFORMATION PROCESSING: DDC (PRACTICE)

Classification of documents according to the latest edition of DDC.   **64hrs**

(Each student shall maintain practical records and submit the same at the time of practical examination).

LS 406: INFORMATION PROCESSING AACR – BOOKS (PRACTICE)

Cataloguing of Simple, compound and composite documents and serials according to latest edition of AACR,   **64hrs**

(Each student shall maintain practical records and submit the same at the time of practical examination).

LS 407: SEMINAR

Each student shall present a seminar on a topic assigned by the teachers   **16hrs**

LS 451: RESEARCH METHODOLOGY

Unit 1 : Research: **11hrs**

Concept, Meaning, Need and Process of Research; Types of Research – Fundamental and Applied including inter disciplinary and multidisciplinary approach; Role of Research in the Development of Scholarship.

Unit 2 : Research Design: **11hrs**

Conceptualization and Operationlisation; Types of Research Design; Identification and Formulation of problem; Hypotheses; Nominal and Operational Definition; Designing Research Proposal; Ethical aspects of Research; Literature search – print, non-print and electronic sources.

Unit 3 : Research Methods: **11hrs**

Scientific Method; Historical Method; Descriptive Method; Survey Method and Case Study Method; Experimental Method and Delphi Method.

Unit 4 : Research Techniques and Tools: **11hrs**

Questionnaire; Schedule; Interview; Observation; Scales and check lists; Library and Record and Reports; Sampling Techniques.

Unit 5 : Data Analysis and Interpretation: **11hrs**

Descriptive Statistics – Measure of Central Tendency; Mean, Mode, Median, Tabulation and Generalization; Measures of dispersion, Variance and covariance, Standard Deviation; Graphical presentation of data – Bar, pie, line-graphs, Histograms etc.; Regression – linear and non-linear; Chi Square Test; Sociometry; Statistical Packages – SPSS.

Unit 6 : Bibliometrics, Scientometrics, and Informetrics: **10hrs**

Concept and Definition; Bibliometric Laws: Bradford's, Zipf's, Lotka's; Bibliographic Coupling; Obsolescence; Citation Analysis; Webometrics; Citation Studies; Informetrics; Scientometrics.

Unit 7 : Research Reporting: **10hrs**

Structure, Style, Contents; Guidelines of Research Reports; Style Manual – Chicago – MLA-APA etc.; E-Citation and Methods of Research Evaluation.

LS 452: INFORMATION SOURCES

Unit 1 : Introduction to Information Sources **10hrs**
Information Sources: Meaning, Definition, Nature, Evolution, Characteristics, Functions, Importance and Criteria for Evaluation.

Unit 2 : Types of Information Sources **10hrs**
Primary, Secondary and Tertiary sources of information; Documentary Sources and Non – Documentary Sources, Human and Institutional sources; Non–print and Electronic sources.

Unit 3 : Primary Sources (Print and Electronic Versions) **10hrs**
Periodicals, Technical reports, Patents, Standards and Specifications, Theses and Dissertations, Conference and Seminar proceedings, Trade literature, etc.

Unit 4 : Secondary Sources (Print and Electronic Versions) **10hrs**
Dictionaries, Encyclopedias, Year books and Almanacs, Biographical sources, Bibliographies, Geographical sources, Current sources, Statistical, information sources, Handbooks and Manuals, etc.

Unit 5 : Tertiary Sources (Print and Electronic Versions) **10hrs**
Directories, Guides to reference sources, Bibliography of bibliographies, Monographs, Union catalogues, Textbooks, etc.

Unit 6 : Non documentary Sources and their Electronic Versions **10hrs**
Human Sources: Technological gatekeepers, invisible colleges, consultants, experts/resource persons, personal home pages, representatives of firms, and others; Institutional / Organisational Sources: Government ministries and departments, R& D organizations, learned societies, publishing houses, archives, data banks, information analysis centers, referral centers, Institutional web sites, etc.

Unit 7 : Non – Print and Electronic Sources **10hrs**
Microforms, Audio visual materials, Optical media based databases, Online databases, Internet sources, List servers, Subject gateways, USENET, etc.

LS 453: MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES-I

Unit 1 : Management Concept, definition and scope, Management styles and approaches, Principles and functions of management, Principles of Scientific Management. **10hrs**

Unit 2 : Organizational structure: Principles of Organizational structure, Organizational structure of Library and Information Centres **10hrs**

Unit 3 : Collection development: Types of documents and selection and acquisition, Tools, Procedures and Policies, Problems of Collection development **10hrs**

Unit 4 : Technical Processing and Preparation of documents for use: shelving, Circulation work, Methods of book circulation- charging and discharging systems. **10hrs**

Unit 5 : Maintenance, Preservation and Conservation of Information Resources, stock verification, Binding and weeding out **10hrs**

Unit 6 : Library committee, Library statistics, Annual reports, Library Records: Compilation, Contents and style, Library rules and regulations. **10hrs**

Unit 7 : Marketing of Information products and services: Meaning, Definition, Need, Market segmentation, Positioning, Market Mix, 4P's - Product, Price, Place, Promotion, Marketing Audit, Role of Librarian in Marketing of LIS **10hrs**

LS 454: INFORMATION TECHNOLOGY – II

Unit 1 : Genesis, History, Need and Areas of Library Automation; Strategies for Library Automation **10hrs**

Unit 2 : Infrastructure Requirements for library automation- Hardware, Software, Humanware, etc.. **10hrs**

Unit 3 : Functionalities of an automated system- Acquisition, Cataloguing, Circulation and Serials Control. OPAC, Web OPAC. **10hrs**

Unit 4 : Retrospective conversion of records: Strategies and Techniques **10hrs**

Unit 5 : Library Software Packages – Commercial - SOUL etc., Free / Open Source Software – KOHA etc.., Evaluation of Library Automation Software. **10hrs**

Unit 6 : Computerized Library and Information Services: Retrospective Conversion – Meaning, Retrospective Conversion Process, Library Consortium - Meaning, Definition Library **10hrs**

consortia in India.

Unit 7 **:** Digital Librareis: **10hrs**

Meaning, Definition, Functions, Scope; Infrastructure required for setting up a Digital Libraries – Hardware, Software and Humanware, Library Materials, Digital Materials, etc.; Advantages and Disadvantages of Digital Libraries

LS 455: INFORMATION PROCESSING: UDC (PRACTICE)

Classification of Books and other documents according to the latest edition of UDC   **64hrs**
(Each Student shall maintain practical record and submit the same at the time of practical examination)

LS 456: INFORMATION TECHNOLOGY – BASICS (PRACTICE)

Unit 1 **:** Exercise in the use of Operating systems: MS-DOS, Windows.   **09hrs**

Unit 2 **:** Exercise in MS-Word, MS-Excel, Ms-PowerPoint, Ms Access.   **09hrs**

Unit 3 **:** Exercise in DBMS; Searching Internet resources   **09hrs**

Unit 4 **:** Database search and retrieval; Searching CD-ROM database   **09hrs**

Unit 5 **:** SOUL   **09hrs**

Unit 6 **:** KOHA   **09hrs**

Unit 7 **:** Open Source Software   **09hrs**
D-Space etc.,

LS 457: SEMINAR

Each student shall present a seminar on a topic assigned by the teachers   **16hrs**

LS 501: INFORMATION LITERACY:

Unit 1	:	Information Literacy	**12hrs**
		Meaning, Definition; Evolution of the concept; Historical perspective of Information Literacy	

Unit 2	:	Types of Information Literacy	**12hrs**
		Technology literacy, media literacy, digital and computer literacy etc; Life long learning and its components	

Unit 3	:	Models of Information Literacy	**10hrs**
		Partners of Information Literacy; Information Literacy instructions in different types of library / information centres	

Unit 4	:	Global perspectives of Information Literacy	**10hrs**
		Study of selected countries	

Unit 5	:	Guidelines and Standards for Information Literacy Programmes	**10hrs**
		ALA and ACRL; Information Literacy Competencies: Current trends and recent research in Information Literacy	

Unit 6	:	Current Trends in Information Literacy	**10hrs**

LS 502: INFORMATION SERVICES

Unit 1 : Information Services: Need, Importance, Definitions; Reference Service: Concept, **10hrs** Definition and types, Reference interview.

Unit 2 : Current Awareness Services (CAS) & Selective Dissemination of Information (SDI) **10hrs** services, Translation Services and Document Delivery Services.

Unit 3 : Indexing Services, abstracting services **10hrs**

Unit 4 : Information Users and their Information Needs, Categories of Information Users **10hrs** Information Needs: Definition and Models, Information Seeking Behavior, User Studies: Methods, Techniques and Evaluation

Unit 5 : User Education, Objectives of user education, Technique and methods of user education **10hrs** programme, Case studies of user education programs

Unit 6 : Study of Information systems and Programmes: NISCAIR, DESIDOC, SENDOC, **10hrs** NASSADOC, MEDLARS, INFLIBNET

Unit 7 : Knowledge skills and Techniques required for Professionals to deal with Print, non Print, **10hrs** and electronic forms of Information System.
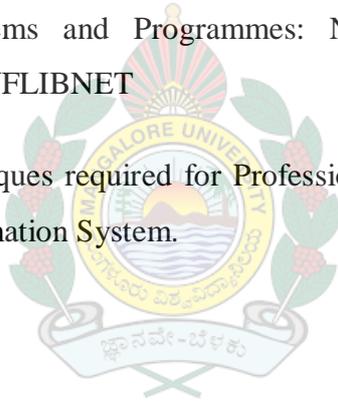
LS 503: MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES-II

Unit 1 : Planning of Library and Information Centres, Planning: Macro Planning and Micro **09hrs** Planning. Steps in planning Library and Information Centres.

Unit 2 : Human Resource Management: Personnel management in LIC: job Analysis: Job **09hrs** Description, and job specification, Selection and recruitment, Procedures and methods, Motivation, Training and Development, performance appraisal

Unit 3 : Financial Management: Sources of Finance, Resource mobilization Budget, Types of **09hrs** Budget, Budgeting Techniques, PPBS. Zero based budgeting etc. Budgeting control, cost benefit analysis

Unit 4 : Publicity and Public Relations – need, importance and methods. Library Extension **09hrs** Activities, Librarians as PRO

Unit 5 : Library Building, Furniture and Equipment: planning, Design and Maintenance **09hrs**

Unit 6 : Performance evaluation of Librarian and Information Centres and Services: Management **09hrs** tools and Techniques for Assessment Library and information centres and their services: Total Quality Management (TQM), Programme Evaluation Reviewing Technique (PERT), Critical Path Method (CPM), Strength Weaknesses Opportunities and Threat (SWOT) analysis

Unit 7 : Records Management Concepts and Issues. **09hrs**

LS 504: INFORMATION TECHNOLOGY – III

Unit 1	**:**	Database: Design, Development and Management, Database Models, Types, Data Security	**09hrs**
Unit 2	**:**	Database Management System (DBMS): Overview, Components, History, Basic architecture, Relational Database Management System (RDBMS) - Overview, Query Languages, Examples- Oracle, MySQL, Postgres, etc..	**09hrs**
Unit 3	**:**	Data mining and Data warehousing: Decision Support Systems (DSS) –Types, Data Analysis and Online Analytical Processing (OLAP). Data Warehousing - Data warehouse architecture, Advantages and Disadvantages.	**09hrs**
Unit 4	**:**	Study of WINISIS and MS-Access: System Overview, system Installation, Database Construction, Techniques, Menus, Tools and Creation of database	**09hrs**
Unit 5	**:**	Networks: Concept, Definition, Need, Uses, Network Topologies, Types of Networks LAN, MAN and WAN.	**09hrs**
Unit 6	**:**	Network Architecture: Comparison of Different Network Architectures, Network Protocol- TCP/IP, IPX, Network Protection and Security; Information Technology: Conceptual and Theoretical Considerations, History and Development, Impact on Libraries and Information Services	**09hrs**
Unit 7	**:**	Web design: Web Server, Web design, Web hosting, using web graphics, medias, Design tools- HTML, Dreamweaver, CSS, Javascripts etc..	**09hrs**

LS 505: ACADEMIC LIBRARY SYSTEM

Unit 1 : Academic Libraries **09hrs**

Meaning, Definition, Importance, Functions, Services and Types of Academic Libraries.

Unit 2 : Higher Education and Libraries **09hrs**

History and development of Higher education in India.

Unit 3 : Role of UGC in development of Academic Libraries **09hrs**

Users of Academic Libraries: Types of users and their needs; User study: Need, importance and techniques. User Education

Unit 4 : Collection Development in Academic Libraries **09hrs**

Types and character of Academic Library collection; Acquisition of Documents: Selection, Policy and procedures, Maintenance; User participation in collection development. Information Technology Impact. Problems of Collection development

Unit 5 : Library and Information Services in Academic Libraries **09hrs**

Reference Service/Referral; Library Use and Information Literacy; Documentation and Information Service; Current Awareness and SDI Service; Abstracting and Indexing Services; Information Product Development Services; Document Delivery Services

Unit 6 Extension Activities **09hrs**

Colloquia, Seminars, Exhibitions, Book Talks, Continuation Education Programmes

Unit 7 Library Cooperation **09hrs**

Resource Sharing, Networks and Consortia; International and National Scenario. INFLIBNET, DELNET

LS 506: INFORMATION TECHNOLOGY: APPLICATIONS (PRACTICE)

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Unit 1	:	Creation of Database: CDSISIS / WINISIS	**10hrs**
Unit 2	:	CD-ROM Database Searching	**10hrs**
Unit 3	:	Online searching: DIALOG, OCLC etc.	**10hrs**
Unit 4	:	Internet Searching	**10hrs**
Unit 5	:	Use of search engines Google, Yahoo etc.	**10hrs**
Unit 6	:	Sorting and printing	**02hrs**
Unit 7	:	Web design: Web Server, Web design, Web hosting, using web graphics, medias, Design tools- HTML, Dreamweaver, CSS, Javascripts etc..	**10hrs**

LS 507: SEMINAR

Each student shall present a seminar on a topic assigned by the teachers   **16hrs**

LS 508: WORK EXPERIENCE AND LIBRARY TOUR

The MLISc students shall work 2 (two) hours per week in the library identified by the department. There shall be a library tour, which is compulsory and student has to submit a tour observation report. Library tour will be conducted during mid semester vocation falling between II and III semester.   **32hrs**
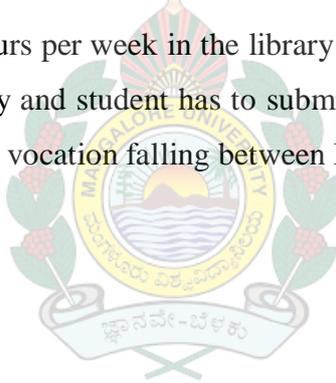
LS 551: CONSERVATION AND PRESERVATION OF INFORMATION RESOURCES

Unit 1 : Introduction to Concepts of Archiving, Preservation and Conservation. Need and **11hrs** significance of Archiving, Preservation and Conservation of Information Resources.

Unit 2 : Evolution of writing materials- Clay, papyrus, metallic plates, skin, parchment, vellum, **11hrs** palm leaves, etc. Palm leaves, Papyrus, Parchment and Vellum - Their history, nature, use as writing materials and their preservation. History of Paper making, Different types of paper and their nature.

Unit 3 : Different types of library materials, their preservation and maintenance: Paper Based **11hrs** materials - Book and Non Book materials, Library Binding, Binding Standards. Other Materials: AN records, Magnetic Plates, Tapes & Diskettes, Microforms, Optical media, Magneto Optical Discs, etc.

Unit 4 : Hazards to Library materials and their preservation: Environmental Hazards, Biological **11hrs** Hazards and Human being as an enemy of library materials. Disaster Prevention and Recovery.

Unit 5 : To Study various National Archival Initiatives of different countries: NARA of US, **11hrs** Australian National initiatives, Public Archives of Canada etc.

Unit 6 : Records Management Concepts and Issues Involved. Information Resource Management., **11hrs** to include Electronic Resource Management Code of Ethics for Archivists.

Unit 7 : Digital Preservation **11hrs**

LS 552 : MANAGEMENT INFORMATION SYSTEMS (MIS)

Unit 1 : Introduction to fundamental issues of information systems (IS)   **11hrs**

Unit 2 : Understanding of the overall information needs of an organization: analysis of organization   **11hrs**
information requirements, and prioritizing IS project, Analysis of information needs,
specification of system requirements, analysis of alternatives, design of alternatives.

Unit 3 : Overview of managerial applications of information technology (IT) to increase   **11hrs**
effectiveness of organizations, cooperative work, organizational competitive advantage and
inter- organizational communication

Unit 4 : Introduction to Knowledge Management, Concept, Definition and Purpose of KM, Need   **11hrs**
and Scope, Historical Development, Role of KM, Impact on Society, Knowledge
Management Approaches, Information Technology and Knowledge Management, Role of
Information Professionals in Knowledge Management

Unit 5 : Information Systems planning: Use of case methods in planning Information Systems,   **11hrs**

Unit 6 : Decision Support Systems, ERP, state-of-the-art techniques for information systems
specifications and design, Real- time structured analysis and design, and object- oriented
analysis and design

Unit 7 : Quantitative methods and tools for analysis and decision making.
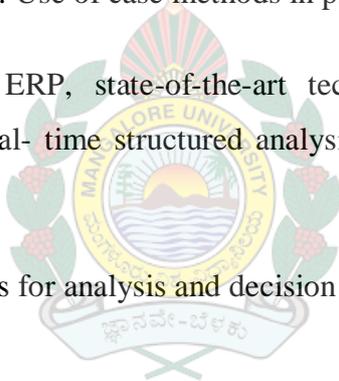
LS 553: INFORMATION RETRIEVAL

Unit 1 : Information Processing and Retrieval: Basic concepts, Retrieval Process: Searching, **11hrs** searches, strategies and techniques.

Unit 2 : Indexing: Concepts, theories, methods and importance. Indexing languages: Vocabulary **11hrs** control, semantics and syntactics.

Unit 3 : Indexing Systems: Pre-Coordinate and Post coordinate. PRECIS, POPSI, KWIC, **11hrs** UNITERM Indexing, Citation indexing.

Unit 4 : Thesauri and Subject Headings – Design and construction **11hrs**

Unit 5 : Evaluation of Indexing Systems: Recall and Precision, Coverage and Currency, ASLIB, **11hrs** MEDLARS, Evaluation studies.

Unit 6 : Bibliographic Description: Concept, Historical Development, Standards for Bibliographic **11hrs** record format- ISBD, MARC 21, ISO 2709 and CCF etc.

Unit 7 : International Bibliographical Control, Universal Bibliographical Control, Role of **11hrs** International Organizations, Standards and Cooperation.

LS 554: INFORMATION TECHNOLOGY-IV

Unit 1	:	Telecommunication: Signals: analog/digital. Transmission media - Pair of wires, Coaxial, Optic fibers, Satellite communication, VSAT, Microwave, Wireless application Protocol (WAP) / Wireless Local Loop (WLL), Bandwidth, Networks Interface Cards, Hub/ Switches.	**11hrs**
Unit 2	:	CD-ROM Technology: Origin, History, Development and Impact, Retrieval Software, CD-ROM Networking and Applications, CD-ROM Publishing.	**11hrs**
Unit 3	:	On-Line & Off-Line Database: Study of Selected On-Line and Off-line databases in Science & Technology, Social Science, Humanities and Other fields.	**11hrs**
Unit 4	:	Communication Networks and Library Networks: NICNET, I-NET, BSNL, and ERNET etc.., Library Networks - INFLIBNET, CALIBNET and DELNET etc..	**11hrs**
Unit 5	:	Network based Services: Document Delivery Services, On-line Service, and Teleconferencing etc.	**11hrs**
Unit 6	:	Internet: History, ISP, Internet Tools and Services, Electronic resources available on the Internet, WWW, E-Mail, Telnet, FTP, Internet Relay Chat	**11hrs**
Unit 7	:	Search Engine, Gopher, Archie, Veronica, WAIS, Usenet/List Forum, PING, Web sites, Browser, Blogs, etc., Regulation of Cyber Laws.	**11hrs**

LS 555: INFORMATION PROCESSING: AACR–NON BOOK MATERIALS (PRACTICE)

Cataloguing of Non Book materials according to the latest edition of AACR **64hrs**

LS 556: DISSERTATION:
64hrs

- MLISc students shall have to choose a topic for dissertation and preliminary preparation be carried out under the guidance of a teacher during MLISc. 3rd semester.
- MLISc students shall have to submit the dissertation on the chosen topic, before the commencement of the theory examination of MLISc. 4th semester.

LS 557: SEMINAR

Each student shall present a seminar on a topic assigned by the teachers **16hrs**

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