# #SYLLABUS#

# MASTER OF LIBRARY & INFORMATION SCIENCE
# (MLIS)

### WITH

### SEMESTER-CUM- COURSE CREDIT SYSTEM

### w.e.f. 01.08.2017 (2017-18 Sessions)



# DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
# SAMBALPUR UNIVERSITY
## Jyoti Vihar, Burla -768019

### Website: http://www.suniv.ac.in

# SYLLABUS OF
# TWO-YEAR MASTER IN LIBRARY & INFORMATION SCIENCE (MLISC)
# COURSE UNDER SEMESTER-CUM- COURSE CREDIT SYSTEM
# w.e.f. 01.08.2017 (2017-18 Sessions)

## (REVISED)

## Programme Details

| Name of the Department | Department of Library and Information Science |
|---|---|
| Subject | Library and Information Science |
| Name of the Programme | M.L.I.Sc. (Master of Library and Information Science) |
| Duration of the Programme | 2 Years – divided into 4 Semesters (Choice Based Credit System) |
| Eligibility | Candidates who have passed any Bachelor's Degree examination from a recognized university under 10+2+3 system are eligible to apply for admission to the M.L.I.Sc (Library and Information Science) Programme. Candidates seeking admission to the programme shall be required to appear for a written examination conducted by the University. |

## Programme Educational Objectives (PEO)

| PEO-1 | Understand the nature and basic concepts of Library and Information Science |
|---|---|
| PEO-2 | Analyse the relationships among different concepts |
| PEO-3 | Perform procedures as laid down in the areas of study |
| PEO-4 | Apply the Basic Concepts learned to execute them |

## Programme Outcomes (PO)

| PO-1 | **Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions |
|---|---|
| PO-2 | **Effective Communication:** Will be able to speak, read, write and listen clearly in person and through electronic media in English and in one Indian Language |
| PO-3 | **Social Interaction (Interpersonal Relation):** Elicit views of others, mediate disagreements and prepared to work in team |
| PO-4 | **Entrepreneurship Capability:** Demonstrate qualities to be prepared to become an entrepreneure |
| PO-5 | **Ethics:** Recognize different value systems including your own, understand the moral dimensions and accept responsibility for them |
| PO-6 | **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development |
| PO-7 | **Life-Long Learning:** Acquire the ability to engage in independent and life-long learning in the context of socio-technological changes |

## Syllabus Structure

The MLISC Programme under Semester-cum-Course Credit System shall comprise of 24 numbers of papers/courses spread over FOUR Semesters and carrying a Total Credit load of 80 Credit Hours. Each Theory paper/course and practical paper shall carry a load of 4 and 2 credits respectively. Each credit hour shall consist of 12 classes of one hour duration. Semester-wise distributions of the courses along with their respective titles are given here under:

| FIRST SEMESTER (22 Credits) | | | | | | |
|---|---|---|---|---|---|---|
| Course No. | Course Title | Credit Hours | University Exam. | Internal Assessment/ Periodic test | Home Assignment | Full Mark/ Total |
| MLIS-411 | Foundation of Library & Information Science | 4 | 80 | 10 | 10 | 100 |
| MLIS-412 | Knowledge Organisation (Classification) | 4 | 80 | 10 | 10 | 100 |
| MLIS-413 | Knowledge Organisation (Cataloguing) | 4 | 80 | 10 | 10 | 100 |
| MLIS-414 | Information Sources, Systems & Services | 4 | 80 | 10 | 10 | 100 |
| MLIS-415-A | Information Organization and Processing (Classification) Practical | 2 | 40 | 5 | 5 | 50 |
| MLIS-415-B | Information Organization and Processing (Cataloguing) Practical | 2 | 40 | 5 | 5 | 50 |
| MLIS-416 | Seminar-I | 2 | 50 | - | - | 50 |

| SECOND SEMESTER (20 Credits) | | | | | | |
|---|---|---|---|---|---|---|
| Course No. | Course Title | Credit Hours | University Exam. | Internal Assessment/ Periodic test | Home Assignment | Full Mark/ Total |
| MLIS-417 | ICT and Library Automation | 4 | 80 | 10 | 10 | 100 |
| MLIS-418 | Information Storage and Retrieval | 4 | 80 | 10 | 10 | 100 |
| MLIS-419 | Search Tools and Techniques | 4 | 80 | 10 | 10 | 100 |
| MLIS-420 | Information Needs and Seeking Behaviour | 4 | 80 | 10 | 10 | 100 |
| MLIS-421 | ICT and Library Automation Practical | 2 | 80 | 10 | 10 | 100 |
| MLIS-422 | Seminar-II | 2 | 50 | - | - | 50 |

## THIRD SEMESTER (20 Credits)

| Course No. | Course Title | Credit Hours | University Exam. | Internal Assessment/ Periodic test | Home Assignment | Full Mark/ Total |
|---|---|---|---|---|---|---|
| MLIS-423 | Management of Libraries & Information Centres | 4 | 80 | 10 | 10 | 100 |
| MLIS-424 | Research Methodology and Bibliometrics | 4 | 80 | 10 | 10 | 100 |
| MLIS-425 | Internet & Web Resources | 4 | 80 | 10 | 10 | 100 |
| MLIS-426 | Digital Library & Information Systems | 4 | 80 | 10 | 10 | 100 |
| MLIS-427 | Library Software Practical | 2 | 80 | 10 | 10 | 100 |
| MLIS-428 | Seminar-III | 2 | 50 | - | - | 50 |

## FOURTH SEMESTER (18 Credits)

| Course No. | Course Title | Credit Hours | University Exam. | Internal Assessment/ Periodic test | Home Assignment | Full Mark/ Total |
|---|---|---|---|---|---|---|
| MLIS-429 | Preservation and Conservation of Library Resources | 4 | 80 | 10 | 10 | 100 |
| *Elective Paper* | | | | | | |
| MLIS-430A | Electronic Resource Management | 4 | 80 | 10 | 10 | 100 |
| | OR | | | | | |
| MLIS-430B | Marketing of Information and Knowledge Management | 4 | 80 | 10 | 10 | 100 |
| MLIS-431 | Effective Communication Skill | 2 | 40 | 5 | 5 | 50 |
| MLIS-432A | Project | 6 | 100 | - | - | 100 |
| MLIS-432B | Study Tour | 2 | 50 | - | - | 50 |

## ALL SEMESTER (FIRST+SECOND+THIRD+FOURTH)

Total Papers = 24

Total Credits = 80

Total Marks = 2050

# FIRST SEMESTER

**Course No: MLIS-411**     **FOUNDATION OF LIBRARY AND INFORMATION SCIENCE**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the role of libraries in the society along with the overview of the philosophy and principles library profession, and the concept of library related Acts and Policies.

## Course Outcome:

1. Remember and understand the basic concepts related to Library and Information Science
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1     INFORMATION AND COMMUNICATION

    1.1    Information: Definition,Types, Characteristics, Values and Use; Data, Information, Knowledge and Wisdom.

    1.2    Information Science: Definition, Scope and linkages with other disciplines

    1.3    Communication: Definition, Concept, Types, Communication Models (Theories): Shannon's Theory, Lasswell's Theory

UNIT-2     NORMATIVE PRINCIPLES OF LIBRARY INFORMATION SCIENCE, LIBRARY LEGISLATIONS AND ACTS

    2.1    Five Laws of Library Science and Application of Five Laws in Library and Information Activities

    2.2    Library Legislation-Concept, Need, Purpose and the Salient Traits

    2.3    A brief sketch of Library Legislation so far made in different States in India

    2.4    Press and Registration Act, Delivery of Books (Public Libraries) Act 1954, Indian Copyright Act, 1957, Right to Information Act,2005

UNIT-3     LIBRARY DEVELOPMENT

    3.1    Development of Libraries with Special reference to India since 1900

    3.2    Role of UNESCO in development of Public Libraries

    3.3    National Information Policies in India, National Knowledge Commission

    3.4    Library Resource Sharing

    3.5    Library Systems: Public Library, Academic Library and Special Library-Their distinguishing features and functions.

UNIT-4     LIBRARY AND INFORMATION PROFESSION AND EXTENSION ACTIVITIES

    4.1    Professional Ethics-The Concept and need

    4.2    Philosophy and Ethics of Librarianship

    4.3    Publicity and Extension Activities

    4.4    Outreach Programmes

UNIT-5     LIBRARY ASSOCIATIONS AND NATIONAL LIBRARIES

    5.1    Library Associations: Need, Objectives and Functions

    5.2    Library Associations: ILA, IASLIC, IFLA

    5.3    National Library: Its concept and role

    5.4    National Library of India and Library of Congress (USA)

**Course No.      MLIS-412      KNOWLEDGE ORGANIZATION (CLASSIFICATION)**

<div align="right">(FM: 100/4 Credits)</div>

**Course Objective:**

The objective of this course is to impart to the students an understanding of knowledge classification and the theories of library classification, to develop skills in document classification and content analysis. The students will also learn about the structure and design of various classification schemes such as DDC and UDC and CC.

**Course Outcome:**

1. Remember and understand the basic concepts related to library classification.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1      FUNDAMENTALS OF LIBRARY CLASSIFICATION

      1.1      Definition, Need, Purpose and Functions of Classification, Basic Terminologies and historical perspectives

      1.2      Species of Library Classification Schemes: Enumerative Vs. Faceted and General Vs. Special

      1.3      Fundamental Categories (PMEST), Postulates pertaining to PMEST

      1.4      Facet Analysis, Principles of Facet Sequence, Phase Relation, Common Isolates

UNIT-2      GENERAL THEORY OF LIBRARY CLASSIFICATION

      2.1      Normative Principles of Library Classification

      2.2      Basic Study of major schemes of Library Classification: DDC, UDC and CC

      2.3      Call Number: Class Number, Book Number and Collection Number

UNIT-3      NOTATION

      3.1      Notations: Definition, Purpose, Types, Qualities, Canons

      3.2      Patterns of Notation used in DDC, UDC and CC

      3.3      Design of Library Classification Scheme: Basic considerations and methodology

UNIT-4      UNIVERSE OF KNOWLEDGE

      4.1      Modes of Formation of Subjects

      4.2      Different Types of Subjects

      4.3      Universe of Subjects as mapped in different Schemes of classification

UNIT-5      RECENT TRENDS IN LIBRARY CLASSIFICATION

      5.1      Relevance of Classification in the context of Computerized/Digital Libraries, Online Classification Schemes-Cyber Dewey, Citeceer, NetFirst, BUBL, OMNI

      5.2      Organizations, Societies and Research Groups-LRC, FID/CR, CRG, DRTC, ISKO

      5.3      Classification of web resources, Web ontology

**Course No.** **MLIS-413** **KNOWLEDGE ORGANISATION (CATALOGUING)**
**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the principles and theoretical aspects of cataloguing. The students will also learn about the features of various cataloguing standards including computerized catalogue and use of subject headings.

**Course Outcome:**

1. Remember and understand the basic concepts related to library cataloguing
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1    BASICS OF LIBRARY CATALOGUING

   1.1      Catalogue: Concept, Purpose and Objectives of Library Catalogue
   1.2      Forms of Catalogue : Outer and Inner Forms
            1.2.1. Outer Forms: Conventional and Non-Conventional
            1.2.2. Inner forms: Alphabetical, Classified and Alphabetico-Classified Catalogue
   1.3      Library Catalogue and  Five Laws of Library Science
   1.4      Entries: Types, Formats & their functions, Data elements in different types of Entries

UNIT-2   SUBJECT CATALOGUING, CENTRALISED AND CO-OPERATIVE CATALOGUING

   2.1      Subject Cataloguing: Concept, Objectives, General Principles & Problems of Subject approach
   2.2      Subject Heading Lists & their features: Library of Congress Subject Headings (LCSH) and Sears List of Subject Headings (SLSH)
   2.3       Subject Cataloguing by Chain Indexing
   2.4      Centralised and Co-operative Cataloguing

UNIT-3   CATALOGUING CODES

   3.1      Cataloguing Codes: Definition, Need, Historical Developments
   3.2.     Features of Anglo-American Cataloguing Rules -2 (AACR-2, Revised Edition)
   3.3      Features of Classified Catalogue Code (CCC 5th Edition)
   3.4      Features of Resource Description and Access (RDA)

UNIT-4        COMPUTERISED CATALOGUING

   4.1      Need for Computerized Cataloguing,
   4.2      OPAC, WEBPAC, Social Online Public Access Catalog (SOPAC)
   4.3      Cataloguing of Web Resources/Digital materials
   4.4       Retro-conversion

UNIT-5        CURRENT TRENDS IN STANDARDIZATION OF BIBLIOGRAPHICAL DESCRIPTION
              &INFORMATION RETRIEVAL

   5.1      ISBDs
   5.2.     Dublin Core
   5.3      MARC-21
   5.4      Z39.50

**Course No.     MLIS-414     INFORMATION SOURCES, SYSTEMS AND SERVICES**
                                                    **(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to familiarize students with a broad range of information source, i.e., from early forms to the modern forms and to develop evaluation and practical skills in dealing with information sources. Student will be trained in developing various information services and products. They will also get acquaintance with different Library Networks, National Information Systems and Global Information Systems.

## Course Outcome:

1. Remember and understand the basic concepts related to various information sources, systems and services
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1     INFORMATION SOURCES

1.1     Sources of Information-Primary, Secondary & Tertiary; Documentary and Non-documentary
1.2     Bibliographical Sources: Bibliographies, Abstracting journals, Indexing Journals ; Bibliographical Control: Meaning, Purpose, UBC and UAP
1.3     Reference Sources: Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources

UNIT-2     ECONOMICS OF INFORMATION
2.1     Value of Information as a resource and commodity
2.2     Economics of Information Sources and Production
2.3     Information as a factor of production

UNIT-3     INFORMATION SYSTEMS
3.1     Information System: Basic Concept, Components
3.2     Categories of information systems: libraries, documentation centres, referral centres, information analysis centres, databanks etc. their structure and functions.
3.3     Different kinds of information systems: Decision support systems, MIS etc.
3.4     Evaluation of Information Systems
3.5     National Information Systems: NISCAIR, DESIDOC, NASSDOC, NISSAT; Global Information Systems: INIS, AGRIS, MEDLARS
3.6     Library Network: Meaning, Purpose, Function; Library Networks: DELNET, CALIBNET, MALIBNET, INFLIBNET, OCLC- their objectives, functions, services, and activities.

UNIT-4     INFORMATION SERVICES
4.1     Information Services : Concept, Définition, Need & Purpose; Information Services vis-à-vis Reference Service
4.2     Current Awareness Services (CAS), Selective Dissemination of Information (SDI), Bibliographic, Referral, Document Delivery Service (DDS) , Translation service
4.3     Abstracting and Indexing Services: Meaning, Use. Types and Parts.
4.4     Current trends in information service.

UNIT-5     INFORMATION ANALYSIS, CONSOLIDATION AND REPACKAGING

5.1     Information Analysis and Consolidation: Concept, Need and Purpose
5.2     Packaging and Re-Packaging: Concept, Need, Purpose and Criteria
5.3     Information Consolidation Products: Types, Design and Development

**Course No.     MLIS-415-A     KNOWLEDGE ORGANIZATION (CLASSIFICATION) PRACTICAL**
**(FM: 50/2 Credits)**

**Course Objective:**

The objective of this course is to train the students in practical classification according to DDC and UDC classification system. The students will be able to develop their practical skills in how to analyse subjects, structure, synthesize and assign class numbers for various types of library documents.

**Course Outcome:**

1. Remember and understand the basic concepts related to classification of documents in a library
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

Classification of Documents representing Simple, Compound and Complex Subjects using the following Schemes of Library Classification:

1. DDC 18th Edition
2. UDC Medium Edition

**Course No: MLIS-415-B          KNOWLEDGE ORGANIZATION (CATALOGUING) PRACTICAL**
**(FM: 50/2 Credits)**

**Course Objective:**

The objective of this course is to impart practical training to the students in cataloguing various types of documents according to the AACR-2, 1988.2nd Revised Edition. The students will be trained on how to prepare catalogue entries for various types and forms of documents in a library.

**Course Outcome:**

1. Remember and understand the basic concepts related to cataloguing of different types of documents in a library
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1     CATALOGUING OF BOOKS (According to AACR-2 Revised Edition)
        A.  Works of Personal Authorship
        B.  Works of Joint Authorship
        C.  Works of Corporate Authorship
        D.  Pseudonymous Works

UNIT-2     CATALOGUING OF NON-BOOK MATERIALS (According to AACR-2 Revised Edition)
        A.  Cartographic Materials
        B.  Manuscripts
        C.  Motion Pictures
        D.  Video Recording

**Course No.     MLIS-416     SEMINAR-I                                        (FM: 50/2 Credits)**

    (A)  Write up on an assigned topic   :          25 Marks

    (B)  Seminar Presentation               :          25 Marks

# SECOND SEMESTER

**Course No.**   **MLIS-417:**   **ICT   AND LIBRARY AUTOMATION**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the basic concept of information communication technology. The students will also learn about the process of library automation and its related technology.

## Course Outcome:

1. Remember and understand the basic concepts related to ICT and Library automation
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1        COMPUTER AND BASIC TERMINOLOGIES OF IT

      1.1    Computer: Definition, Concept, History, Characteristics and functions

      1.2    Computer Hardware: Memory, Input & Output devices

      1.3    Basic Terminologies and their Conceptual Meaning: Log-on and Log-off, Online, Offline, Command,  End User and Intermediary, Modem, Password, Prompt, Bit and Byte, and Response Time, Bandwidth, Processors, ASCII, bug, Back up, Virus, Micro Processor

UNIT-2        PROGRAMMING LANGUAGES AND SOFTWARE FUNDAMENTALS

      2.1    Programming Languages :Types, Characteristics and their Applications

      2.2    Computer Software- System Software and Application Software

      2.3    Operating System: Windows and Linux

UNIT-3        NETWORKING

      3.1    Definition, Need, Client server Architecture

      3.2    Network types & Topologies

      3.3    Components of a Network

UNIT-4        LIBRARY SOFTWARE AND AUTOMATION OF LIBRARIES

      4.1    An Overview of Library Softwares, types and their features:

      4.2    Library Automation: Definition and automated housekeeping operations

      4.3    Selection and implementation of LMS software

      4.4    Study of Individual Automation Software Packages and their application: LIBSYS, SOUL, KOHA & NewGenLib

UNIT-5        LATEST TRENDS IN ICT APPLICATION

      5.1    Radio Frequency Identification (RFID) and its applications in libraries

      5.2    Internet and Web technology: What is Internet, How does it work, Basic web terminologies- TCP/IP, DNS, URL, Telnet, FTP, WWW

      5.3    Multimedia technology and its application in libraries

**Course No.    MLIS-418    INFORMATION STORAGE AND RETRIEVAL**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the concept of Information Storage and Retrieval System (ISRS), its types and models. The students will also learn about different methods used to evaluate ISRS.

## Course Outcome:

1. Remember and understand the basic concepts related to Information storage and retrieval
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1    FUNDAMENTALS OF INFORMATION RETRIEVAL SYSTEM

    1.1    Information Retrieval System (IRS): Definition, Concept, Components, Functions, and Qualities

    1.2    ISRS Systems: Types of IRS- Design and Operation

    1.3    Database: Definition, Concept and Components, Structures

UNIT-2    CLASSICAL MODELS OF INFORMATION RETRIEVAL

    2.1    Information Retrieval Models: Basic Concept,

    2.2    Boolean Model, Vector Model, Probabilistic Model

    2.3    Alternative Set Theoretic Models: Fuzzy Set Model, Extended Boolean Model

UNIT-3    EVALUATION AND COMPATIBILITY

    3.1    Evaluation of ISRS: Purpose, Criteria and Steps

    3.2    Common Evaluation Measures: Recall vrs Precision

    3.3    Evaluation Experiments and Initiatives: Cranfield Tests,  SMART, Evaluation of Search Engines

    3.4    Compatibility of Information Storage and Retrieval System: Areas of Compatibility; Interface Compatibility, Principal issues

UNIT-4    INTELLIGENT INFORMATION RETRIEVAL

    4.1    Intelligent Information Retrieval: Introduction, Intelligent Retrieval System: Artificial Intelligence (AI), AI applications in LIS

    4.2    Expert Systems: Definition, Kinds & Components, Application of Expert System in Library & Information Services

    4.3    Semantic Web: its application in knowledge management

UNIT-5    RECENT TRENDS IN INFORMATION RETRIEVAL

    5.1    Web Information Retrieval-Characteristics of Web IR-Components of Web IR-Crawler, Page Repository, Indexing Module, Query Module, Ranking Module-Web IR Tasks

    5.2    Natural Language Processing (NLP): its application in information retrieval

    5.3    Data mining, Data Warehousing, Web Mining: Concepts, Techniques and applications

**Course No.     MLIS-419     SEARCH TOOLS AND TECHNIQUES**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to familiarize students with basic Search tools, techniques and to familiarize them different Indexing Languages and Indexing techniques. They will also get thorough knowledge on trends in Online Searching such as Cluster Based Web search; Federated Search; searching through Meta search engine.

## Course Outcome:

1. Remember and understand the basic concepts related to Search tools and techniques
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1     SEARCH STRATEGIES

      1.1  Search Strategy: Concept, need, development of a search strategy
      1.2  Process for Searching: Preparing to search, Feedback and Refining
      1.3  Basic Search Techniques: Word and Phrase, Boolean, Truncation, Proximity, Field, Metadata, Limit Search Techniques

UNIT-2     ONLINE SEARCHING

      2.1  Online Searching and Retrieval: Definition, Historical development, basic features ; Searching vs. browsing
      2.2  Online Search tools: Search Engines- Primary Search Engines, Meta search Engines, Focused crawler based search engines and Directories; Subject Gateways
      2.3  Google Search tools and techniques

UNIT-3     INDEXING LANGUAGE AND VOCABULARY CONTROL

      3.1  Indexing Language: Types and Characteristics
      3.2  Vocabulary Control: Definition and Purpose. Tools of Vocabulary Control
      3.3  Thesaurus: Structure and Function; Design/Construction of Thesaurus.(Printed material)

UNIT-4     INDEXING TECHNIQUES

      4.1  Post Coordinate Indexing, Uniterm, KWIC, KWOC, Keyword Indexing, Citation Indexing
      4.2  Citation Indexing – Meaning and importance, Different citation indexes: SCI, SSCI, AHCI
      4.3  Automatic Indexing: Concept and Process; Manual vrs Automatic Indexing,
      4.4  Automatic Term Extraction and Weighing, Automatic Text Retrieval

UNIT-5     CURRENT TRENDS IN ONLINE SEARCHING

      5.1  Federated search: Concept, Need, Functions, Advantages,  Disadvantages
      5.2  Federated Search providers- Free and Commercial; Federated Search  Engine vs Meta search engine;
      5.3  Cluster Based Web search

**Course No.  MLIS-420  INFORMATION NEEDS AND SEEKING BEHAVIOUR**
**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the basic concept of information seeking behavior and information literacy. The students will also learn different techniques of user studies and methods of user education programmes.

**Course Outcome:**

1. Remember and understand the basic concepts related to Information needs and Seeking Behaviour
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1  TYPES OF USERS AND THEIR NEEDS
   1.1  Composition of User Community
   1.2  Classification of Users: Planners, Policy Makers, Managers, R&D Personnel, People at Grass Root, Academics
   1.3  Assessment of Information Needs of Users


UNIT-2  METHODS AND TECHNIQUES OF USER STUDIES
   2.1  User Study: Its Need, Types, benefits, and Steps in Planning User Studies, impact on LIS
   2.2  Questionnaire Method
   2.3  Case Study Method & Interview Method
   2.4  Observation Method and Survey Method


UNIT-3  INFORMATION SEEKING AND USES OF INFORMATION
   3.1  Information Seeking Behaviour (ISB): Concept and Models
   3.2  Information Seeking Behaviour of different user groups
   3.3  Uses of Information in various activities: Management activities, Decision Making, R & D, Teaching & Learning, social development


UNIT-4  USER EDUCATION AND EVALUATION OF USER STUDIES
   4.1  User Education: Concept, need,
   4.2  Methods of User Education
   4.3  Evaluation of User Studies: Definition, Need, and Criteria
   4.4  Methods and Steps in Evaluation


UNIT-5  INFORMATION LITERACY
   5.1  Information Literacy: Meaning and Concept
   5.2  Salient Features of Information Literacy
   5.3  Digital Information literacy and Library Users

**Course No.   MLIS-421       ICT AND LIBRARY AUTOMATION PRACTICAL**

**(FM: 100/2 Credits)**

**Course Objective:**

The objective of this course is to train the students with the use of software related to office automation and library automation. The students will also acquaint with few programming languages and use of database management systems.

**Course Outcome:**

1. Remember and understand the basic concepts of programming language and software related to library automation.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1       USE OF SYSTEM SOFTWARE AND APPLICATION SOFTWARE

        1.1 WINDOWS-7, Linux
        1.2 MS-Word, EXCEL, POWERPOINT, MS-ACCESS

UNIT-2       HANDS ON EXPERIENCE WITH LIBRARY AUTOMATION SOFTWARE (ANY ONE)

        2.1     NewGENLIB
        2.2     E-Granthalaya
        2.3     Koha

UNIT-3       PROGRAMMING LANGUAGE AND DATABASES

        3.1 Basic Programming in HTML, C, PHP and Java
        3.2 Opensource RDBMS (MySQL and PostGreSQL)

**Course No.   MLIS-422       SEMINAR-II**

**(FM: 50/2 Credits)**

        (A) Write up on an assigned Topic     :     25 Marks
        (B) Seminar Presentation          :     25 Marks

# THIRD SEMESTER

**Course No: MLIS-423 MANAGEMENT OF LIBRARIES AND INFORMATION CENTERS**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the basic concept of management including Human Resource Management, Financial Management and its applicability in library operations. The students will also learn about stress management, time management, change management and project management.

## Course Outcome:

1. Remember and understand the basic concepts related to library management
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1:       BASICS OF MANAGEMENT

     1.1     Management: Concept, Administration vs. Management & Functions of Management (POSDCORB)
     1.2     Management Schools of Thought: Classical, Neoclassical and Modern Management Theory
     1.3.    Principles of Management: Scientific Principles & Administrative Principles
     1.4     Application of Management Principles in Libraries
     1.5     Management Information System (MIS)

UNIT-2:       MANAGEMENT OF LIBRARY HOUSE KEEPING OPERATIONS

     2.1    Different Sections of libraries and information centers and their functions
     2.2    Acquisition Procedures: Selection Principles Ordering and Accessioning
     2.3    Technical Processing: Classification, Cataloguing and Physical Processing
     2.4    Serial Control,  Circulation and Maintenance
     2.5   Stock Verification and Weeding: Policies and Procedures

UNIT-3:       HUMAN RESOURCE MANAGEMENT

     3.1    Human Resource Management: Concept and Importance
     3.2    Human Resource Planning: Estimating Manpower Requirements
     3.3    Methods of Manpower Planning Job Analysis, Job description, Recruitment, Selection, Induction& Deployment
     3.4  Human Resource Development: Performance Appraisal, Training & Development

UNIT-4:       FINANCIAL MANAGEMENT AND TQM
     4.1    Sources of Finance
     4.2    Budgeting: Concept, Types of budgets-Line, ZBB, PPBS
     4.3    Total Quality Management (TQM): Its Concept, Contribution of TQM Pioneers
     4.4    Quality Indicators in LIS: LibQUAL, ISO-9000

UNIT-5:       LATEST TRENDS IN LIBRARY MANAGEMENT

     5.1 Stress Management
     5.2 Time Management
     5.3    Project Management
     5.4    Change Management

**Course No.     MLIS-424     RESEARCH METHODOLOGY AND BIBLIOMETRICS**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the basic concept of research methodology including research types and various methods, tools, techniques used in LIS research. The students will also be familiar with the concept of citation analysis and bibliometric study.

## Course Outcome:

1.  Remember and understand the basic concepts related to Research Methodology and Bibliometrics
2.  Analyse the Various Concepts to understand them through case studies
3.  Apply the knowledge in understanding practical problems
4.  Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1     FUNDAMENTAL CONCEPTS OF RESEARCH

    1.1     Research-Definition, Concept, Elements, Functions, Purpose and Scope
    1.2     Research and its Classification - Pure Vs Applied Research, Individual Vs Collaborative, Interdisciplinary Vs Multidisciplinary, Team, Relay Research
    1.3     Factors to be considered in determining Research Problems

UNIT-2     RESEARCH METHODS AND DATA COLLECTION

    2.1     Methods of Research: Survey Method, Case Study Method and Delphi Techniques
    2.2     Scientific Method-Its Concept, History and Procedural Steps
    2.3     Methods of Data Collection: Primary data- Questionnaire, Interview and Observation
    2.4      Secondary data; Historical/Recorded data

UNIT-3     RESEARCH DESIGN, PLANNING AND REPORT WRITING

    3.1     Research Design - Its concept, Purpose, Attributes, Components and steps
    3.2     Synopsis-Its concept and Essential Components
    3.3     Hypothesis-Its concept, Functions, Types and Sources
    3.4     Report Writing-Concept, Attributes, Qualities and Outlines of a Good Report

UNIT-4     BIBLIOMETRIC STUDIES

    4.1     Bibliometrics – The concept and Origin and current developments-Sceintometrics, Webometrics, Informetrics, Altmetrics
    4.2     Bibliometric Laws: Bradford's, Zipf, Lotka
    4.3     Bibliographic Coupling and Obsolescence
    4.4     Citation Analysis and Impact Factor

UNIT-5     STATISTICAL METHODS – BASICS

    5.1     Statistical Methods-Its Concept, Definitions, Basic Steps, Factors involved
    5.2     Frequency Distribution
    5.3     Mean, Median, Mode, Standard Deviation and Range
    5.4     Types of Time Series and Correlation
    5.5     Sampling Techniques-Data, Correlation and Regression, Use of $z$ and $x^2$ Statistics

**Course No.    MLIS-425    INTERNET AND WEB RESOURCES**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to familiarize students with a broad range of Web based information sources, i.e., Online Database, E-books, E-journals, E-prints, E-databases and to acquaint students with various internet based information resources such as Library Consortia, Open access resources and OA initiatives in India. Students will get detailed idea about various Subject Based Information Sources on web.

## Course Outcome:

1. Remember and understand the basic concepts related to Internet and Web resources
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1    GROWTH OF INTERNET AND WEB RESOURCES

      1.1    Internet: Definition & Concept, inception, growth and development

      1.2    Basic Internet services-E-Mail, FTP, Telnet, IRC, News groups

      1.3    Web Browser: Concept, function; Features of Internet Explorer & Firefox

UNIT-2    INTERNET AND ORGANIZATION OF WEB RESOURCES

      2.1    Organization of Web Resources: Classification & Cataloguing

      2.2    Selection and Acquisition of Web Resources: Need, Standards, and Criteria

      2.3    Online Database: It's Concept and Taxonomy-Bibliographic, Full text, Numeric , Citation Searching

UNIT-3    INTERENET BASED INFORMATION RESOURCES

      3.1    E-resources on the Web, E-books, E-journals, E-prints, E-databases

      3.2    Open Access initiatives: Philosophy, grounds of OA, benefits, OA initiatives in India

      3.3    Library Consortia: Definition, need, function; Library consortia initiatives in India

UNIT-4    SUBJECT BASED INFORMATION SOURCES

      4.1    Web based Social Science Information

      4.2    Web based Information Sources in Health and Medicine

      4.3    Web based Information Sources in Business Management

      4.3    Web Based Information Sources in Engineering

UNIT-5    LATEST TRENDS AND TOOLS OF INTERNET

      5.1    Web 2.0: Definition and Concept, Features, Introduction to Web 3.0 and Web 4.0

      5.2    Web 2.0 Tools: Wiki, Blog, Social Bookmarking, Video Sharing, Document Sharing, Social Networking, RSS; Application of Web 2.0 in libraries- Library 2.0

      5.3    Cloud Computing: Concept, Need, Functions; Cloud computing application in Library

**Course No.    MLIS-426    DIGITAL LIBRARY & INFORMATION SYSTEMS**

**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the basic concept of digital libraries and major digital library initiatives. The students will also be familiar with the components and architecture of digital library along with related legal issues.

## Course Outcome:

1. Remember and understand the basic concepts related to Digital library and information systems
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1    INTRODUCTION AND OVERVIEW TO DIGITAL LIBRARIES

- 1.1    Digital Libraries: Conceptual Framework; Definitions, Models and Theories
- 1.2    History and evolution of Digital Libraries, Digital Divide
- 1.3    Issues and challenges involved in building digital libraries
- 1.4    Major Digital library Initiatives in India and abroad

UNIT-2    COLLECTION DEVELOPMENT IN DIGITAL LIBRARIES

- 2.1    Digital Resources: Nature, Characteristics and types
- 2.2    Building Digital Library Resources – Born Digital and Digitized, Digital Conversion: general issues, digitization process, standards, file formats, Unicode, Metadata
- 2.3    Selection and Acquisition of materials for Digitization
- 2.4    Digital Collection Management and Evaluation – Issues and Strategies

UNIT-3    DIGITAL LIBRARY ARCHITECTURE

- 3.1    DL Architecture Overviews, Principles and Types: Distributed, Federated, Service Oriented and Component based Architectures.
- 3.2    Digital Library Components: Identifiers – Handles – Digital Object Identifier (DOI) Persistent Uniform Resource Locator (PURL), Interoperability, Security
- 3.3    Digital Library Software: Open Source – GSDL & DSpace
- 3.4    User Interface for DL – Need, Design principles for effective user interface

UNIT-4    INFORMATION MANAGEMENT AND ACCEESS

- 4.1    Metadata: Role of Metadata in Digital Resource Management; Metadata Harvesting
- 4.2    Metadata Schemas: Generic Schemas: DCMI, MODS, TEI; Domain Specific Schemas:  METS, VRA Core
- 4.3    Information Access in Digital Libraries-Open Access
- 4.4    Information Discovery in DL– Harvesters and Federated Search Engines, OAIPMH, OpenURL, Web Portals

UNIT-5    PRESERVATION AND LEGAL ISSUES

- 5.1    Legal Issues of DL – Intellectual Property Rights (IPR), Copyright, Open Licenses – GNU, Creative Commons
- 5.2    Approaches to Digital Preservation: Policies & Strategies
- 5.3    Preservation Metadata Maintenance Activity (PREMIS) and Preservation Projects
- 5.4    Archiving: Concepts, Methods and Procedures, Self Archiving Policies

**Course No.     MLIS-427     LIBRARY SOFTWARE AND WEB TOOLS PRACTICAL**
**(FM: 100/2 Credits)**

**Course Objective:**

The objective of this course is to provide hands on experience to students on library software especially used for bibliographic data management and building digital libraries. The students will also be trained with how to access information effectively from different web services and online databases.

**Course Outcome:**

1. Remember and understand the basic concepts related to ICT and Library automation
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1     CREATION AND MAINTENANCE OF BIBLIOGRAPHIC DATABASES

      1.1  CDS/ISIS
      1.2  WIN/ISIS

.UNIT-2     DIGITAL LIBRARY SOFTWARE (ANY ONE)

      2.1 GSDL
      2.2 D-Space
      2.3 E-Print

UNIT-3     HANDS ON EXPERIENCE WITH DIFFERENT WEB SERVICES

      3.1 Contribute an article to Wikipedia, Sharing of Resources via Social bookmarking
      3.2 Create an web blog for library
      3.3 Searching Google Search Engine and Online Databases: Pubmed, , EBSCO, JCCC, MathScinet, Web of Science, ProQuest

**Course No.     MLIS-428     SEMINAR-III**

**(FM: 50/2Credits)**

(A) Write up on an assigned Topic     :     25 Marks

(B) Seminar Presentation     :     25 Marks

# FOURTH SEMESTER

**Course No.     MLIS-429     PRESERVATION AND CONSERVATION OF LIBRARY RESOURCES                         (FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to make the students familiar with the concept of preservation of different types of library materials. The students will also learn about digital preservation and various digital preservation initiatives.

## Course Outcome:

1. Remember and understand the basic concepts related to preservation and conservation of library materials.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1     CONCEPT OF PRESERVATION AND CONSERVATION

      1.1     Preservation and Conservation: Concept, Need & History
      1.2     Evolution of Writing Materials
      1.3     Inherent characteristics of the Library Materials – Manuscripts, Books, Periodicals and Newspapers

UNIT-2     HAZARDS TO LIBRARY MATERIALS

      2.1     Environmental Factors – Temperature, Humidity, Light and Dust
      2.2     Biological Factors – Fungi, Insects and Other Pests
      2.3     Chemical Factors – Chemicals used in Production and Preservation of Documents

UNIT-3     PREVENTIVE METHODS OF PRESERVATION OF LIBRARY RESOURCES

      3.1     Preventive Measures for Environmental Factors
      3.2     Preventive Measures for Biological and Chemical Factors
      3.3     Disaster Preparedness/Response
      3.4     Care and Handling of Library Resources

UNIT-4     NON-BOOK MATERIALS AND THEIR PRESERVATION

      4.1     Variety of Non-Book Materials
      4.2     Physical Environment for Storing of Non-Book Materials
      4.3     Care and Handling of Non-Book Materials

UNIT-5     CURRENT TRENDS IN PRESERVING THE LIBRARY MATERIALS

      5.1     Digital Preservation: It's Need
      5.2     Challenges and Strategies for Preserving Digital Contents
      5.3     Role of International/National Organisations
      5.4     Indian Initiatives towards Digital Preservation

**Course No.     MLIS-430A     ELECTRONIC RESOURCE MANAGEMENT      (Elective Paper-1)**
**(FM: 100/4 Credits)**

## Course Objective:

The objective of this course is to introduce the students with the basic concept of electronic resources, and Electronic Resource Management System (ERMS). The students will be acquainted with the application, workflow and technology framework of popular ERMS.

## Course Outcome:

1. Remember and understand the basic concepts related to Electronic resource management
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

## Course Content:

UNIT-1     INTRODUCTION TO E-RESOURCES

        1.1     Electronic Resources: Definition, Emergence, features, advantages and disadvantages, Print vs E-resources

        1.2     Types of E-Resources: Databases, E-Books, E-Journals, Multimedia objects, E-references, Scholarly materials, Subject Guides, Web Search Tools, Subject Gateways

        1.3     Effective E-Resource Framework, E-Resource Life Cycle

UNIT-2     ELECTRONIC RESOURCE MANAGEMENT SYSTEM (ERMS)

        2.1     ERMS: Concept, need, features, types, functional requirements, benefits

        2.2     Application Modules of ERMS

        2.3     ERM Technology Framework: OpenURL, DLFERM

UNIT-3     ERM WORKFLOW

        3.1     Principles and Policies of E-Resource Development, Selection, Licensing, Renewal, Deselection

        3.2     Acquisition, Technical Services, Delivery, ILL, Marketing and maintenance

        3.3     Content Providers, Library-vendor relation, and collaboration

UNIT-4     USAGE, EVALUATION AND IPR

        4.1     Use Statistics-COUNTER, Citation Studies, Observation Logs, Interviews and Focus Groups

        4.2     Evaluation of E-Resources: Need, Criteria and Methods

        4.3     Copyright, Fair use, Relevant Acts, Digital Rights Management (DRM)

UNIT-5     ARCHIVING AND PRESERVATION

        5.1     E-Archives: Meaning, Features, Registry Models

        5.2     Preservation of E-Resources: Meaning, Challenges, issues and strategies

        5.3     Preservation Policies, Preservation Initiatives-LOCKS and CLOCKS

**Course No.     MLIS-430B     MARKETING OF INFORMATION AND KNOWLEDGE**
**                            MANAGEMENT     (Elective Paper-2)     (FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to make the student understand about the marketing strategies and promotion design applicable for LIS products and services. The students will also learn about different tools of knowledge management and their application in libraries.

**Course Outcome:**

1. Remember and understand the basic concepts related to marketing of information and knowledge management
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1     FUNDAMENTALS OF MARKETING

        1.4     Marketing: Concept, need
        1.5     Market Segmentation
        1.6     Marketing Mix

UNIT-2     MARKETING OF LIS PRODUCTS AND SERVICES

        2.4     LIS Products and Services as a Marketable Commodity-Pricing, Distribution Channels and Communication Strategies
        2.5     Information Analysis, Consolidation and Repackaging: Concept, Need, Purpose, types of consolidation products and their design
        2.6     Advertising, Sales Promotion, Public Relations and E-Marketing

UNIT-3     VALUING LIS RESOURCES AND SERVICES

        3.5     Value: Concept, types and
        3.6     Value of LIS services: History, Importance, Levels and Areas
        3.7     Methods in determining value in Library Services- Cost-Benefit, Return on Investment, Balance Score Card and TQM

UNIT-4     KNOOWLEDGE MANAGEMENT

        4.4     Knowledge Management : Concept, Scope and Principles
        4.5     Types of Knowledge
        4.6     Information Management Vs Knowledge Management

UNIT-5     APPLICATION OF KNOWLEDEG MANAGEMENT IN LIS

        5.6     Knowledge Management in Libraries
        5.7     Tools of Knowledge Management in Libraries
        5.8     Role of Librarian in Knowledge Management

**Course No.    MLIS-431    EFFECTIVE COMMUNICATION SKILL**

**(FM: 50/2 Credits)**

**Course Objective:**

The objective of this course is to acquaint the students with effective writing and presentation skills. The students will be familiar with public speaking and official correspondence.

**Course Outcome:**

1. Remember and understand the basic concepts related to Effective communication skill
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1:    EFFECTIVE WRITING

Effective Writing Skills: Elements of Effective Writing, Main Forms of Written Communication: Agenda, Minutes, Notices, Writing of CV, Memo, Drafting an E-mail, Press Release. Correspondence: Personal, Official and Business, Report Writing.

UNIT-2:    EFFECTIVE PRESENTATION

Presentation Skills, Interviews, Public Speaking, Preparing the Speech, Organising the Speech, Special Occasion Speeches. • Greeting and introducing. • Practising Short Dialogues. • Group Discussions, Seminars/Paper-Presentations. • Listening News/Conversations/Telephonic Conversation.


**Course No.    MLIS-432    PROJECT**

**(FM: 100/4 Credits)**

(EVALUATION OF PROJECT: 75; VIVA-VOCE: 25)

A Project on any of the themes or sub-themes of current practices (Behavioral, Managerial and Technological) of libraries or librarianship has to be submitted independently by the examinees in consultation with the teachers or an external expert. The Project will be evaluated jointly by the Internal and External Examiners. The evaluation of the Project carries 75 marks and a viva-voce (includes presentation and answering the questions of the examiners by the examinee) carries 25 Marks.


**Course No.    MLIS-433    STUDY TOUR**

**(FM: 50/2 Credits)**

The students will visit Libraries/Information Centres of repute with modern technology for a period of seven days along with teacher(s) guide. They will have practical exposure to the latest trends in library automation, digitization and user services. At the end of the tour, each of the students will have to submit a report and also make a presentation with all the details of the learning outcomes of the programme. The Study Tour Report and Presentation will be evaluated jointly by the Internal and External Examiners. The evaluation of the Study Tour Report carries 75 marks and the presentation carries 25 Marks.

# SUGGESTED READINGS

## MLIS-411: FOUNDATION OF LIBRARY AND INFORMATION SCIENCE

1. Khanna, J. K. (1984). *Fundamentals of Library Organization.* New Delhi: Ess Ess Publications.
2. Khanna, J. K. (1987). *Library and Society*. New Delhi: Ess Ess Publications.
3. Krishna Kumar. (1987). *Library Organization.* New Delhi: Vikas Publishing House.
4. Ranganathan, S. R. (2006). *Five Laws of Library Science.* (Reprint). New Delhi: Ess Ess Publications.
5. Rout, R. K. (1991). *Library Legislation in India*. New Delhi: Reliance Publishing House.
6. Agrawal, S. P. (1989). *Development of Library Services in India*. New Delhi: Concept Publishing.
7. Kumar, P. S. G. (2003). *Foundation of Library and Information Science*. New Delhi: BR Publishing.
8. Mangala, P. B., Sardana, J. L., & Singh, M. (1983). *Fifty Years of Librarianship in India: Past, present and future*. New Delhi: Hindustan Publishing.
9. Ramakrishnan, M. N. (1991). *Academic Library Development*. New Delhi: Ess Ess Publications.
10. Rath, M. M. (1993). *Sociology of Librarianship*. Delhi: Pratibha Prakashan.
11. Kawatra, P. S. (1965). *Fundamentals of Documentation*. New Delhi: Sterling Publishers.
12. David, B. (2015). *Introduction to Information Science.* London: Facet Publishing.

## MLIS-412: KNOWLEDGE ORGANIZATION (CLASSIFICATION)

1. Berwick Sayers, W.C.(1950). Introduction to Library Classification. London: Andra dautch.
2. Chernyi, A.I.(1973). Introduction to Information retrieval theory. London: ASLIB.
3. Dhyani, P.(1998). Library Classification: Theory and practice. New Delhi: Vishwa Prakashan.
4. Jennifer, E. R.(1987). Organising knowledge: An introduction to Information retrieval. Aldershot:Gower.
5. Krishan Kumar (1980). Theory of Classification, 4 Ed. New Delhi: Vikas.
6. Kumar, P.S.G.(2003). Knowledge organization, Information processing and retrieval theory.Delhi: BR.
7. Ranganathan, S.R. (1960).Colon Classification, 6th ed. Bangalore: Sarada Ranganathan Endowment for Library Science.
8. Ranganathan, S.R. (1957 &1965). Prolegomena to Library Classification, Ed2, London: LA.
9. Ranganathan, S.R. (1999). The five laws of Library Science. Bangalore: Sarada Ranganathan Endowment for Library Science.
10. Sinha, S.C. & Dhiman, A.K.(2002). Prolegomena to universe of knowledge. New Delhi: ESS ESS.
11. Srivastava, A.P.(1993). Theory of knowledge Classification in Libraries. New Delhi: Sage.

## MLIS-413: KNOWLEDGE ORGANIZATION (CATALOGUING)

1. Bowman, J.H. (2002). *Essential cataloguing: The basics*. London: Facet Publications.
2. Chambers,Sally (Ed.) (2013). *Catalogue 2.0: The future of library catalogue*. London: Facet Publications.
3. Chaudhary, G. G. & Chaudhary, Sudatta (2007). *Organizing information: From the shelf to the web*. London: Facet Publications.
4. Chaudhary, G. G. (1999) *Modern information retrieval theory*. London: Library Association.
5. Hunter, E. J. & Bakewell, K.G.B. (1989). *Advanced cataloguing*. London: Clive Bingley.
6. Maxwell, Robert L. (2014). *Maxwell's handbook for RDA: Explaining and illustrating RDA: resource description and access using MARC 21*. London: Facet.
7. Ranganathan, S. R. (1989). *Classified catalogue code with additional rules for dictionary catalogue code* (5th ed with amendments). Bangalore: Sarada Ranganathan Endowment for Library Science.
8. Richard, Gartner (2016). Metadata: knowledge from antiquity to the semantic web. London: Springer.
9. Zeng, Marcia & Qin, Jian (2016). *Metadata.* 2nd ed. London: Facet.
10. Satija, M.P.(2000). *Sears List of Subject Headings: A Practical Introduction for Indian Students*, New Delhi: Concept.
11. Kumar,Girja. And Kumar, Krishan.1986. *Theory of Cataloguing*.5th Ed., New Delhi: Vikas Publications.

**MLIS-414: INFORMATION SOURCES, SYSTEMS AND SERVICES**

1. Singh G. (2013). Information Sources, Services and Systems. PHI Learning Pvt.
2. Kumar, P S G. (2004). "Information Sources and Services". Delhi; B.R.Publishing Corporation.
3. Guha, B. (1983). "Documentation and Information". Calcutta; the World Press.
4. Kawatra, P S. (200). "Textbook of Information Science". New Delhi; A.P.H Publishing.
5. Sharma, J S and Grover, D R.(1967). "Reference Services and Sources of Information'. New Delhi; Ess Ess Publications.
6. Bose, K. (1994). "Information Networks in India: Problems and Prospects." New Delhi Ess Ess Publications.
7. Seetharama, S (1992). "Information Consolidation and Repackaging"; New Delhi; Virgo Publications.
8. Kaul, H K (1992). "Library Networks: An Indian Experience". New Delhi; Virgo Publications.
9. Kaul, H K (1999). "Library Resource Sharing and Networks". New Delhi; Virgo Publications.
10. Chopra, H S (1996). "Information Marketing". New Delhi; Rawat Publications.

**MLIS-415-A: KNOWLEDGE ORGANIZATION (CLASSIFICATION) PRACTICAL**

1. Raju., A.A.N. (1985). Universal decimal and colon Classification.
2. Chan, Lois Mai and others: Dewey Decimal Classification. A practical guide. 2nd Ed. Albany, New York: OCLC.
3. Satija, M.P. and Comaromi, J.P.(1998). Exercises in the 21st Edition of Dewey Decimal Classification. New Delhi: Concept.
4. 23rd Edition of Dewy Decimal Classification.

**MLIS-415-B: KNOWLEDGE ORGANIZATION (CATALOGUING) PRACTICAL**

1. ALA et al. (2006). *Anglo-American Cataloguing Rules: AACR* (2nd rev ed.). London: Library Association.
2. Library of Congress. (2011). *Library of Congress Subject Headings* (33rd ed). Washington, D.C.: Library of Congress, Cataloging Distribution Service.
3. Fritz, Deborah A. (2007). *Cataloging with AACR2 & MARC21: For books, electronic resources, sound recordings, video recordings, and serials.* 2nd ed., Chicago: American Library Association.
4. Fritz, Deborah A., & Fritz, Richard J. (2003). *MARC21 for everyone: A practical guide*. Chicago: American Library Association.
5. Olson, Nancy B., Bothmann, Robert L. & Schomberg, Jessica J. (2008). *Cataloging of audiovisual materials and other special materials: A manual based on AACR2 and MARC 21* (5th ed). Westport, Conn.: Libraries Unlimited.
6. Ranganathan, S. R. (1988). *Classified Catalogue Code (with additional Rules for Dictionary Catalogue Code)* (5th ed). Bangalore: SaradaRanganathan Endowment for Library Science.
7. Saye, Jerry D., & Vellucci, Sherry L. (1989). *Notes in the catalog record based on AACR2 and LC rule interpretations*. Chicago: American Library Association.
8. Sears, Minnie Earl & Lighthall, Lynne Isberg. (2010). *Sears List of Subject Headings* (20th ed.). New York: H.W. Wilson.

**MLIS-417: ICT AND LIBRARY AUTOMATION**

1. Nair, R. (2002). *Accessing Information through Internet*. New Delhi: Ess Ess Publications.
2. Panda, K. C. & Goutam, J. N. (1999). *Information Technology (IT) on the Cross Road: From Abacus to Internet*. Agra: YK Publishers.
3. Rajaraman, V. (1999). *Fundamentals of Computers*. New Delhi: Prentice Hall.
4. Sharma P. S. K. (1993). *Library Computerization*. New Delhi: Ess Ess Publications.
5. Sinha, P. K. (2003). *Computer Fundamentals*. New Delhi: BPB Publications.
6. Mohapatra, M. & Ramesh, D. B. (2004). *Information Technology Application in Libraries: A text book for beginners*. Bhubaneswar: Reprint Publication.

7. Pattnaik, S. (2001). *First text book on information technology*. New Delhi: Dhanpat Rai & Co.
8. Kumar, P. S. G. (2004). *Information Technology Applications*. Delhi: BR Publishing.
9. Kumar, P. S. G. (2003). *Information Technology: Basics*. Delhi: BR Publishing.

## MLIS-418: INFORMATION STORAGE AND RETRIEVAL

1. A course in Information consolidation: a handbook for education and training in analysis, synthesis and repackaging of Information. General Information Programme and UNISIST, UNESCO, PGI, Paris. 1986.
2. Alberico, R. and Micco M.(1990). Expert systems for reference and Information retrieval. West Port: Meckler.
3. Chowdhruy, G.G.(2003). Introduction to modern Information retrieval. 2nd Ed. London, Facet Publishing.
4. Ford, N.(1991). Expert systems and artificial intelligence: An Information manager's guide. London : LA.
5. Lancaster, F. W. (1968). Information retrieval systems, characteristics, testing and evaluation. London: Facet Publishing.
6. Pandey, S.K. Ed.(2000).Library Information retrieval. New Delhi: Anmol.
7. Van, R.C. J.(1970). Information retrieval. 2nd ed. London: Butterworths.
8. Vickery, B.C.(1970). Techniques of Information retrieval. London: Butterworths

## MLIS-419: SEARCH TOOLS AND TECHNIQUES

1. Shokouhi, M. and Si, L. (2011). Federated search (Foundations and trends(r) in information Retrieval). Now Publishers Inc.
2. Choudhury, G G (1999). "Introduction to Modern Information Retrieval". Library Association Publishing; p 158-177.
3. Lancaster, F W (1991). "Indexing and Abstracting in Theory and Practice". London Library Association Publishing.
4. Tze-chung, L I (1985). "An Introduction to Online Searching". Greenwood.
5. Ching-chih, C. (1982). "Online Bibliographic Searching: A Living Manual". Neal Schumann.
6. James, M. (1994). "Online Searching Techniques and Management". ALA.
7. Karen, H. and Ernest, A. (2004). "Searching and Researching on Internet". Franclin Beedle.
8. Christinel, B. et.al (1984)"Effective Online Searching: A Basic Text". CRC Press.
9. Alice, Y. C. (1991). "Vocabulary Control and Search Strategy in Online Searching"Greenwood.
10. Lancaster, F. W (1983). "Vocabulary Control for Information Retrieval". 2nd ed. Information Resource Press.

## MLIS-420: INFORMATION NEEDS AND SEEKING BEHAVIOUR

1. Andretta, S. (2012). *Ways of experiencing information literacy: Making the case for a relational approach*. Oxford: Chandos.
2. Godwin, P & Parker, J. (2009). *Information literacy meets library 2.0*. Santa Barbara: Facet Publications.
3. Mackey,T.P & Jacobson,T.E. (2011). *Teaching information literacy online*. London: Neal-Schuman.
4. Devaranjan, G. (1989).*User's approach to information in libraries*. New Delhi :Ess Ess publications
5. Kumar, P.S.G. (2004)Library and users : theory and practice. Delhi :B.R .Corporation
6. Laloo, B.T.(2002).Information need, information seeking behaviour and users". New Delhi:EssEss publications .
7. Prasad, H. N.(1992).Information needs and users. Varanasi: Indian Bibliographic Center.
8. Ramaiah,L. S. et .al .(1997) *Information and Society*. New Delhi: EssEss publication.

9. Dorner, Daniel G. &Gorman, Gary. E.(2014) *Information Needs Analysis: Principles and Practice in Information Organisations.* Facet Publishing.
Fisher, KE et.al. Ed. (2008).*Theories of Information Behavior.*New Delhi : Ess Ess,2008

## MLIS-421: ICT AND LIBRARY AUTOMATION PRACTICAL

1. Deepali, T. (2003). *Web interface for CDS/ISIS*. Colombo: Sri Lanka Library Association.
2. Haravu, L. J. (2004). *Library automation design, principles and practice*. New Delhi: Allied Publishers.
3. Pandey, S. K. (2000). *Organisation of Library Automation*. New Delhi: Anmol Publications.
4. Reddy, S. (2001). *Automated Management of Library Collections*. New Delhi: Ess Ess.
5. Tripathi, A. et al. (eds.). (2010). *Open Source Library Solutions*. New Delhi: Ess Ess.
6. Sarmah, M. (2013). *IT application in college libraries*. Guwahati: Estern Book Publishing House.
7. Gopal, K. (2005). *Modern Library Automation*. New Delhi: Authors Press.
8. Chidrupananda, S. (2006). *Making sense of library automation: A handson guide*. Kolkata : Meteor.
9. Simpson, A. & Jones, B. L. (2007). *Windows vista bible*. New York: John Wiley.
10. Walkenbach J. et al. (2007). *Office 2007 bible.* New York: John Wiley.
11. Kernighan, B. W. & Ritchie, D. M. (1988). *The C programming language*. (2$^{nd}$ ed.). London: Prentice-Hall

## MLIS-423: MANAGEMENT OF LIBRARIES AND INFORMATION CENTERS

1. Evans, G. Edward, Ward, Patricia Layzell, & Rugaas, Bendik (2000). *Management basics for information professionals.* New York, Neal-Schuman
2. Kumar, Krishan (2007). *Library management in electronic environment*. New Delhi: Har-Anand Publications.
3. Mittal, R. L. (2007). *Library administration: Theory and practice*. 5 ed. New Delhi: Ess Ess.
4. Panwar, B. S. & Vyas, S. D. (1986). *Library management*. Delhi: R. R. Publishing.
5. Ranganathan, S. R. (2006). *Library administration*. 2nd ed. New Delhi: Ess Ess.
6. Singh, M. (1983). *Library and information management: Theory and practice*. Delhi: IBT.
7. Singh, R. S. P. (1990). *Fundamentals of library administration and management*. Delhi: Prabhat Publications.
8. Stueart, R. D. & Moran, B. B. (2013). *Libraries and information center management*. 8$^{th}$ ed. London: Libraries Unlimited.
9. Kumar, Krishan. (1993). *Library Administration and Management*. New Delhi: Vikas.
10. Kumar, P. S. G.(2003). *Management of Library and Information Centres*. Delhi. B. R. Publishing Corp.

## MLIS-424: RESEARCH METHODOLOGY AND BIBLIOMETRICS

1. Kumar, P. S. G. (2004). *Research method and statistical techniques*. New Delhi: BR Publications.
2. Sehgal, R. L. (1998). *Designing and evaluation of research in Library science*. New Delhi: Ess Ess Publications.
3. Kothari, C. R. (1990). *Research methodology: methods and techniques*. New Delhi: Wiley Eastern.
4. Krishna Kumar. (1992). *Research method in Library and information science*. New Delhi: Harhand Publications.
5. Sardana, J. L., & Sehgal, R. L. (1996). *Statistical methods for librarians*. New Delhi: Ess Ess Publications.
6. Sehgal, R. L. (1998). *Applied statistics for Library science research*. New Delhi: Ess Ess Publications.
7. Arora, P. N., & Arora, S. (2010). *Comprehensive Statistical Methods.* New Delhi: S.Chand.
8. Creswell, J. W. (2002). *Research Design: Qualitative, quantitative, and mixed method approaches.* New Delhi: SAGE Publications.

**MLIS-425: INTERNET AND WEB RESOURCES**

1. Anderson, P. (2012). Web 2.0 and Beyond: Principles and Technologies. Chapman and Hall/CRC
2. Suber P. (2012). Open Access. MIT Press
3. Paliwal, P K. and Balkrishnan, S. (2001). "Systems and Practices of Effective Library". New Delhi; Anmol Publications.
4. Nair, Raman R (1999). "Internet for Library and Information Services". New Delhi; Ess Ess Publications.
5. Comber, J D. "Internetworking with TCP/IP Principles, Protocols and Architectures". 4th Ed.; Delhi; Pearson Education.
6. Nair, Raman R. (2002). "Accessing Information through Internet". New Delhi; Ess Ess Publications.
7. Jain, S. and Jain, S (2003). "Internet & Web Design".; New Delhi; BPB Publications.
8. Dhande, A. S. (2014). *Web 2.0 Applications in Library.* Ess Ess Publications

**MLIS-426: DIGITAL LIBRARY & INFORMATION SYSTEMS**

1. Chowdhury, G.G. (2003). Introduction to Digital Libraries. London: Facet Publishing
2. ICADL: Tutorials on Digital Libraries. Bangalore, 2001. 40
3. Leona Carpenter, Simon Shaw & Andrew Prescott: Towards the Digital Library. London: LA, 1998.
4. Lee, Stuart D: Digital imaging: A practical handbook. 2000.
5. Malwad, N.M. and others (1992): Digital Libraries: Conference papers.
6. Marilyn Deegan and Simon Tanner (2010). Digital Futures Strategies for the information age. London: Facet Publishing.
7. Andrew Cox (2010). Introduction to Digital Library Management. London: Facet Publishing.
8. David Nicholas and Ian Rowlands (2010). Digital Consumers Reshaping the information professions. London: Facet Publishing.
9. Lesk, Michael (2004). "Understanding Digital Libraries". Morgran Kauffman Press.
10. Schwartz, C. (2000). Digital libraries: an overview The Journal of Academic Librarianship, 26(6), 385-393.

**MLIS-429: PRESERVATION AND CONSERVATION OF LIBRARY RESOURCES**

1. Harvey, R. (1994). *Preservation in libraries: principles, strategies and practices for librarians*. London: Bowker Saur.
2. Feather, J. (1996). *Preservation and the management of library collections*. (2nd ed.). London: Library Association Publishing.
3. Prajapati, C.L. (1997). *Archivo-Library materials – Their enemies and need of first phase conservation*. New Delhi: Mittal Publications.
4. Burkett, J. & Morgan, T. S. (Eds.). (1963). *Special Materials in the Library*. London: Library Association.
5. Fothergill, R. & Butchart, I. (1990). *Non-book materials in libraries. A practical guide*. London: Clive Bingley.
6. Gabriel, M. & Ladd, D. (1980). *The microform revolution in libraries*. Greenwich: JAI Press.
7. Leggett, E. R. (2014). *Digitization and digital archiving: A practical guide for librarians*. Maryland,USA: Rowman & Littlefield.
8. Nair, S.M. (1977). *Biodeterioration of paper conservation of cultural property in India*. New Delhi: National Museum.
9. Barow, W. J. (1960). Permanent and durable book paper. Richmond, USA: Virginia State Library.
10. Chakrabarti, B. & Mahapatra, P. K. (1991). *Library collection: Selection and preservation*. Calcutta:WordPress.

**MLIS-430A: ELECTRONIC RESOURCE MANAGEMENT**

1. Cole, L. (2013). *Electronic Resource Management: A Handbook.* Facet Publishing.

2. Holly, Y. (2008). *Electronic Resource Management in Libraries: Research and Practice.* IGI Global.
3. Lee, S. D. *Building an Electronic Resource Collection: A practical guide.* London: Facet Publishing
4. Schmidt, E. &. (2012). *Electronic Resource Management, 1st Edition Practical Perspectives in a New Technical Services Model.* Chandos Publishing.
5. Wikoff, K. (2011). *Electronic Resources Management in the Academic Library: A Professional Guide Paperback.* Libraries Unlimited Inc.

**MLIS-430B: MARKETING OF INFORMATION AND KNOWLEDGE MANAGEMENT**

1. Clayton, P. (2006). *Managing Information Resources in Libraries: Collection management in theory and practice.* London: Facet Publishing.
2. Johnson, P. (2014). *Fundamentals of Collection Development and Management.* London: Facet Publishing.
3. Seetharama, S. (2015). *Marketing in Libraries and Information Centres.* New Delhi: Ess Ess Publications.
4. Thomsett-Scott, B. C. (2013). *Marketing with Social Media.* Facet Publishing
5. Kotler, P., & Armstrong, G. (2010). *Principles of Marketing*. (13th ed.). USA: Pearson.
6. Sandhusen, R. L. (2000). *Marketing*. (3rd ed.). Canada: Barron's Educational Series.
7. Rowley, J. (2016). *Information marketing*. (2nd ed.). New York: Routledge.
8. Groff, T., & Jones. T.P. (2011). *Introduction to knowledge management*. New York: Routledge.
9. Dalkir, K. (2005). *Knowledge management in theory and practice*. UK: Elsevier.
10. Maier, R. (2007). *Knowledge management systems*. Berlin: Springer-verlag.