# APPENDIX – A

2-Year Integrated Course of
Master of Library & Information Science (M.Lib.I.Sc.)

## Course Structure

1. The integrated M.Lib.I.Sc. Course will be of 2 years duration consisting of 4 Semesters with total of 80 credits. Each paper is of 5 Credits except the courses offered through Swayam portal.
2. The semester wise details of the paper would be as follows:

<table>
<thead>
<tr>
<th>Papers</th>
<th>Marks allocation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Internal Assessment</td>
<td>Semester Exam</td>
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<tr>
<td><strong>Semester-I</strong></td>
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<tr>
<td><strong>Paper I</strong>: Foundations of Library &amp; Information Science</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper II</strong>: Computer Basics &amp; Applications</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper III</strong>: Knowledge Organisation –Library Classification &amp; Cataloguing (Theory)</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper IV</strong>: Knowledge Organisation –Library Classification &amp; Cataloguing-I (Practical)</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Semester-II</strong></td>
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<tr>
<td><strong>Paper V</strong>: Library Management</td>
<td>30 marks</td>
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<tr>
<td><strong>Paper VI</strong>: Computer Applications (Practical)</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper VII</strong>: Information Sources &amp; Services</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper VIII</strong>: Knowledge Organisation –Library Classification &amp; Cataloguing-II (Practical)</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Semester-III</strong></td>
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<tr>
<td><strong>Paper IX</strong>: Universe of Knowledge &amp; Research Methods</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper X</strong>: Information Retrieval (Theory)</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper XI</strong>: Information Retrieval (Practical)</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper XII</strong>: Information Technology and System Design</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Semester-IV</strong></td>
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<tr>
<td><strong>Paper XIII</strong>: Information Science and Knowledge Management</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td><strong>Paper XIV</strong>: Elective</td>
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<tr>
<td>XIV (a) Information Sources &amp; Products in Science &amp; Technology</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td>XIV (b) Information Sources &amp; Products in Social Sciences</td>
<td>30 marks</td>
<td>70 marks</td>
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<tr>
<td>XIV (c-1) Bibliometrics and Scientometrics [¥]</td>
<td>3 Credits</td>
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<tr>
<td>XIV (c-2) Yoga [¥]</td>
<td>2 Credits</td>
<td></td>
</tr>
<tr>
<td><strong>Paper XV</strong>: Information Users &amp; Needs</td>
<td>30 marks</td>
<td>70 marks</td>
</tr>
<tr>
<td><strong>Paper XVI</strong>: Information Technology Applications (Practical)</td>
<td>30 marks</td>
<td>70 marks</td>
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[¥] Course offered through Swayam Portal.

*July 2018*
Detailed content of papers are as follows:

SEMESTER-I

Paper 1: Foundations of Library & Information Science

**Unit 1:** Library and Librarianship

(i) Libraries, Documentation and Knowledge Resource Centres
(ii) Librarianship: Profession, Ethics and Challenges
(iii) Types and Function of Libraries Five Laws of Library Science & their Implications
(iv) Library Building, Furniture and Equipment

**Unit 2:** History & Development of Libraries, Documentation & Knowledge Resource Centres

(i) Development of Libraries & Knowledge Resource Centres
(ii) Library Legislation: Need, Function, Salient feature of State Library Acts in India
(iii) Model Public Library Act
(iv) Information System & Services: Concept and propositions

**Unit 3:** Library Associations & Organisations for Promotion of Libraries

(i) Professional Organisations: Objectives, Functions & Professional Activities
(ii) National & Regional Associations: ILA, IASLIC, and UPLA
(iii) International Associations: IFLA, American Library Association and CILIP
(iv) NAPLIS, National Knowledge Commission, National Mission on Libraries

**Unit 4:** Library Outreach Activities

(i) Library Resource Sharing
(ii) Public Relation & Extension activities
(iii) Library Consortia: FORSA, ICOLC, SPARC & E-Shodhsindhu

**Unit 5:** Intellectual Property Rights

(i) IPR: Concept, Need & Types
(ii) Press and Registration of Books Act
(iii) Delivery of Books Act
(iv) Indian Copyright System and WIPO
Paper II: Computer Basics and Applications

Unit 1: Computer Basics

(i) Computer: Definition, Developments and Computer Generations
(ii) Classification of Computers
(iii) Basic Components of a Computer, Computer Peripherals

Unit 2: Hardware and Software Components

(i) Computer Hardware: Components, Functions
(ii) Processors, Memory, Storage and Input/output Peripherals
(iii) Computer Software: Types & Functions
(iv) Operating Systems: Types and Functions with reference to Windows and Linux

Unit 3: Software Packages

(i) Word Processing Packages
(ii) Desktop Publishing
(iii) Library Application Software: CDS/ISIS

Unit 4: Library Automation

(i) Library Automation Software: an Overview
(ii) Use of Computers in the house keeping operation
(iii) Retrospective Conversion
(iv) Library Software Packages: Features, Selection, Market Value
(v) Study of available Library Automation Suites

Unit 5: Networking

(i) Definition, Need, Client Server Architecture
(ii) Network Types & Topologies
(iii) Components of Networks

Note: Internal Assessment will be reserved for Hands on experience on computer operations with reference to
(i) Linux
(ii) Office Management Suite
Paper III: Knowledge Organisation: Library Classification & Cataloguing (Theory)

Unit 1: Basics of Classification
(i) Definition, Need and Purpose of Classification
(ii) Concept of Call Number, Class Number & Book number
(iii) Species of Classification Schemes
(iv) Salient Features of DDC, CC and UDC
(v) Notation: Definition, Kinds and Function

Unit 2: Theoretical Foundations of Classification
(i) Canons of Classification
(ii) Phase Relations, Common Isolates & Other Auxiliary Tables of DDC, CC and UDC
(iii) Postulational Approach to Classification, Five Fundamental Categories and Facet Sequence
(iv) Principles of Helpful Sequence
(v) Devices and Indicator Digits
(vi) Recent Developments in Classification

Unit 3: Basics of Cataloguing
(i) Library Catalogue: Definition, Function, Types & Physical Forms
(ii) Kinds of Catalogue Entries and their Functions
(iii) History of Catalogue Codes
(iv) Salient Features of AACR-II and CCC

Unit 4: Normative Principles and Subject Cataloguing
(i) Normative Principles & Canons of Cataloguing
(ii) Subject Cataloguing: Chain Procedure, Subject Heading Lists.
(iii) Filing of Catalogue Entries & Alphabetization

Unit 5: Bibliographical Formats & Other Aspects
(i) Machine Readable Catalogue, OPAC & Web OPAC
(ii) Standards of Bibliographic Descriptions and Record Formats: ISBD, MARC21,ISO – 2709/Z39.2, FRBR, FRSAD, FRAD, RDA, Dublin Core
(iii) Centralised and Cooperative Cataloguing, Simplified Cataloguing, Programmes for Cooperative Cataloguing: BIBCO, CONSER & NACO
(iv) Cataloguing of Non-Book Materials: Cartographic Materials, Electronic Documents, Audio-visual Materials and Continuing Resources
Paper IV: Knowledge Organization: Library Classification & Cataloguing- I (Practical)

(i) Steps in Classification, Classification of Documents by Colon Classification and Dewey Decimal Classification 22\textsuperscript{nd} edition with the following details –

*Colon Classification*: Basic Subject, Compound and Complex Subject, Five Fundamental Categories, Facet Sequence, Phase Relations.

*Dewey Decimal Classification*: Main Class, Divisions, Tables, Use of Schedule & Relative Index.

(ii) Cataloguing of Books and Periodicals in accordance with the latest available edition of AACR and Sears List of Subject Headings: Works of Single, Shared and Mixed Responsibilities (personal, corporate etc.)

(iii) MARC21 Format for Bibliographic Description

**Note**: 20 marks will be reserved for viva-voce in Semester Exam.
SEMESTER–II

Paper V: Library Management

Unit 1: Principles of Library Management

(i) Principles of Management & their application in Libraries and Information Centres
(ii) Elements of Management Process: POSDCORB
(iii) Total Quality Management (TQM)

Unit 2: Collection Development

(i) Policies & Principles: Print and Digital Resources
(ii) Selection-tools for Books and Non-book Materials
(iii) Handling of Government Documents and Manuscripts

Unit 3: Library House Keeping Activities: Routines & Workflows

(i) Acquisition & Processing of Reading Materials – Principles, Routines and Records
(ii) Technical Processing: Routines and Tools
(iii) Circulation: Methods, Routine, Records and Serials Control
(iv) Shelving, Maintenance, Stock Verification and Preservation of Library Materials
(v) Annual Report and Statistics

Unit 4: Personnel Management

(i) Human Resource Development
(ii) Staff Recruitment, Selection & Training, Staff Formula
(iii) Staff Development, Motivation & Leadership Quality Improvement
(iv) Staff Manual

Unit 5: Financial Management

(i) Sources of Library Finance
(ii) Budget Estimation
(iii) Budgeting Techniques
**Paper VI: Computer Applications (Practical)**

Hands-on experience with computer operation with reference to
(i) Web Page Designing
   a. Syntax of HTML Document
   b. Formatting of HTML Document
(ii) CDS/ISIS– Database creation, Management and Retrieval
(iii) MARC Format

**Note:** 20 marks will be reserved for viva-voce in Semester Exam.
Paper VII: Information Sources & Services

Unit 1: Nature of Information Sources

(i) Concept of Information Source
(ii) Kinds of Information Source – Primary, Secondary and Tertiary
(iii) Basic Reference & Information Sources and Criteria for Evaluation

Unit 2: Reference Tools

(i) Bibliographical Sources: National Bibliographies, Trade Bibliographies
(ii) Language Dictionaries
(iii) Encyclopaedia
(iv) Yearbooks & Directories
(v) Biographical & Geographical Sources

Unit 3: Electronic Sources

(i) CD-ROMs and Multimedia
(ii) Electronic Books and Electronic Journals
(iii) Electronic Databases

Unit 4: Web Resources

(i) World Wide Web: Services & Facilities
(ii) Websites & Sources – Subject Portals, Digital Libraries, Discussion-Forums, Bulletin-Boards, Consortia, Wikis, Blogs & RSS

Unit 5: Information Services

(i) Information Services: Concept, Types and Need
(ii) Type of Information Services: Literature Search, Documentation Service, Translation Service and Document Delivery Service
(iii) CAS and SDI Service
(iv) Electronic Information Service
Paper VIII: Knowledge Organisation: Library Classification & Cataloguing – II (Practical)

(i) Classification of Documents with Complex Subjects according to DDC 22\textsuperscript{nd} edition and Colon Classification
(ii) Cataloguing of Documents involving complicated Personal and Corporate Authorship, Periodicals according to AACR-II.

Note: 20 marks will be reserved for viva-voce in Semester Exam.
SEMESTER–III

Paper IX: Universe of Knowledge and Research Methods

Unit 1: Universe of Knowledge

(i) Definition, Source of Knowledge, Types of Knowledge
(ii) Characteristics of the Universe of Knowledge
(iii) Subjects having Knowledge as their field of Study
(iv) Modes of thinking: Authoritative, Speculative, Tenacious and Positivistic

Unit 2: Modes of Formation of Subjects

(i) Fission, Fusion, Distillation, Lamination, Loose Assemblage
(ii) Spiral of Scientific Method

Unit 3: Research Methods

(ii) Scientific Methods: Features
(iii) Research Methods – Historical, Survey and Experimental
(iv) Formulation of Research Design: Exploratory, Descriptive, Diagnostic and Experimental
(v) Sampling Technique

Unit 4: Methods of Data Collection & Representation

(i) Collection of Data: Questionnaire, Interview and Case Study
(ii) Presentation of Data: Table, Diagram, Graphs etc.
(iii) Research Ethics and Plagiarism
(iv) Technical Writing & Writing Skills

Unit 5: Statistical Methods & Metrics in Library and Information Science

(i) Statistical Measures: Measures of Central Tendency; Measure of Variability; Correlation; Chi-square Test
(ii) Bibliometrics, Scientometrics & Webometrics: Meaning, Scope Parameters
(iii) Bibliometric Laws & their Applications
(iv) Citation and Referencing Style
Paper X: Information Retrieval (Theory)

Unit 1: Subject Analysis and Representation

(i) Fundamentals of Retrieval Systems: Nature & Characteristics
(ii) Problems of Subject Analysis & Representation: Contribution of Cutter, Kaiser, Ranganathan, Farradane & Coates Subject
(iii) Thesaurus: Definition, Types, Function, Structure & Construction, Thesaurofacet

Unit 2: Abstracting

(i) Abstracting: Definition, Types, Slant in Abstracting
(ii) Principles & Canons of Abstracting

Unit 3: Subject Indexing

(i) Subject Indexing: Concept & Development
(ii) Assigned Indexing:
  a. Pre-coordinate Indexing System – Chain Indexing, PRECIS, POPSI
  b. Post Coordinate Indexing System – Uniterm
(iii) Derived Indexing: KWIC, KWOC, Citation Indexing and Full text

Unit 4: Information Searching & Retrieval

(i) IR models: Cognitive, Probabilistic etc.
(ii) IR Performance Evaluation
(iii) Search Techniques: Boolean, Proximity, Truncation etc
(iv) Web-based Retrieval
(v) XML Retrieval

Unit 5: Modern IR Applications

(i) Artificial Intelligence & Man-Machine Interface
(ii) Natural Language Processing
(iii) Concept Maps & Ontology
(iv) Data Mining
(v) Semantic Web, Linked Data & Big Data
Paper XI: Information Retrieval (Practical)

(i) Classification of documents with complex subjects according to UDC and Colon Classification
(ii) Cataloguing of documents involving complicated personal & corporate authorship, complex periodicals & non-book material
(iii) Indexing practice and Vocabulary Control Device practice

Note: 20 marks will be reserved for viva-voce in Semester Exam.
Paper XII: Information Technology and System Design

Unit 1: Information Technology: Basics

(i) Overview of Information Technology
(ii) Computer and Communication Technology
(iii) Application of Information Technology in Libraries
(iv) Digitization and Digital Divide
(v) Digital Preservation

Unit 2: Internet & WWW

(i) Internet: Overview and History
(ii) Uniform Resource Identifiers, Hyper Text, Hyper Link, and Hyper Media
(iii) Internet Protocol – HTTP, HTTPS, FTP, Remote Login, Z39.50, OAI-PMH
(iv) Browsers and E-mail
(v) Search Engine – Types and Evaluation
(vi) Interactive Web

Unit 3: Database Management System

(i) Database: Definition, Concept, Components and Types
(ii) Database Structure: Logical Data Structure, Physical Data Structure
(iii) Database Management System Models: Structure – Hierarchical, Networking, Relational and Object Oriented

Unit 4: System Analysis and Design

(i) System Analysis and Design: Concept and Types
(ii) System Design and Development
(iii) Implementation & Evaluation

Unit 5: Digital Library

(i) Digital Library: Conceptual Framework and Architecture
(ii) Digital Object Management
(iii) Digital Library: Procedure and Implementation
(iv) Digital Library Software
Semester - IV

Paper XIII: Information Science and Knowledge Management

Unit 1: Information Science

(i) Data: Definition, Scope and Types
(ii) Information: Definition, Scope, Type, Nature and property
(iii) Conceptual difference between Data, Information and Knowledge
(iv) Representation of Information: Sign, Signal, and Symbol
(v) Information Science: Definition Scope and Objectives
(vi) Information Science as a Discipline and its Relationship with other Subject

Unit 2: Information Systems and Communication

(i) Communication Process, Channels, Models and Barriers
(ii) Information Generation: Modes and Forms
(iii) Information Communication: Theories & Models
(iv) Information System: MIS, DSS, and Expert System

Unit 3: Library, Information and Society

(i) Information Society: Genesis, Characteristics and Implications
(ii) Changing role of Libraries and Information Centres in Society
(iii) Concepts of Freedom, Censorship, Fair Use, Creative Commons
(iv) Policies Relating to Information: Intellectual Property Rights, Right to Information Act, SHEPRA/RoMEO Project, COPE

Unit 4: Information Economics and Information Industry

(i) Information as an Economic Resource
(ii) Information Industry: Primary, Secondary etc.
(iii) LIS Products and Services as a Marketable Commodity
(iv) National Information Policy

Unit 5: Knowledge Management

(i) Knowledge Management: Concept and Scope
(ii) KM System, Information Management Vs Knowledge Management
(iii) Stage and Process of Knowledge Management
(iv) Tools of Knowledge Management
Paper XIV: Elective

XIV (a) Information Sources & Products in Science & Technology
XIV (b) Information Sources & Products – Social Sciences
XIV (c-1) Bibliometrics and Scientometrics\(^\text{v}\) ---3 Credits
XIV (c-1) Yoga\(^\text{v}\) ---2 Credits 5 Credits

XIV (a) Information Sources & Products in Science & Technology

Unit 1: Science & Technology

(i) Overview of Major Subjects of Science & Technology
   a. Physics
   b. Chemistry
   c. Engineering & Technology

Unit 2: Sources of Information

(i) Primary Sources of Information: Periodicals, Research Reports, Patents, Specifications etc.
(ii) Secondary Sources of Information: Bibliographies, Indexes and Abstracts, Encyclopedia, Year book etc.
(iii) Evaluation of Important Secondary Sources from the view of their Information Value
(iv) Databases in Science & Technology

Unit 3: Role of Research Institutes & Professional Organizations in the development of Science & Technology

(i) India
(ii) U.K.
(iii) USA

Unit 4: Information Systems and Services in Science & Technology

(i) National
(ii) International

Unit 5: Information Analysis & Repackaging

(i) Content Analysis
(ii) Consolidation
(iii) Repackaging

\(^\text{v}\) Course offered through Swayam Portal.

July 2018
XIV (b) Information Sources & Products in Social Sciences

Unit 1: Overview of Social Science

(i) Developments in Major Subjects of Social Science
   a. Sociology
   b. Political Science
   c. History
   d. Economics

Unit 2: Sources of Information

(i) Primary Sources of Information: Periodicals, Research Reports, Patents, Specifications etc.
(ii) Secondary Sources of Information: Bibliographies, Indexes and Abstracts, Encyclopedia, Year book etc.
(iii) Evaluation of Important Secondary Sources from the view of their Information Value
(iv) Databases in Social Sciences

Unit 3: Role of Research Institutes & Professional Organizations in the Development of Social Sciences

   a. India
   b. UK
   c. USA

Unit 4: Information Systems and Services in Social Science

(i) National
(ii) International

Unit 5: Information Analysis and Repackaging

(i) Content Analysis
(ii) Consolidation
(iii) Repackaging
Paper XV: Information Users & Needs

Unit 1: Information Users

(i) Identification of Users
(ii) Concept of Need, Want, Demand & Requirement
(iii) User Categories: Planners, Policy Makers, Managers, R&D Personnel, People at Grass Root Level
(iv) Information Seeking Behavior Models

Unit 2: Uses of Information

(i) Uses of Information in Management activities
(ii) Uses of Information in Decision Making
(iii) Uses of Information in R & D
(iv) Role of Information in Raising the Standards & Quality of Life
(v) Technology Innovation & Technology Transfer

Unit 3: User Studies

(i) Scope and Content of User Studies
(ii) Studies by Types of Libraries: Different User Groups, Different Disciplines
(iii) Critical Review of Some Large Scale User Studies

Unit 4: Methodology of User Studies

(i) Qualitative & Quantitative Paradigm
(ii) Data Collection Methods
(iii) Other Specific Techniques—Scenario Analysis, Interaction Analysis, Delphi Method, Repertory Grid
(iv) Evaluation of User Survey

Unit 5: Information Literacy

(i) Information Literacy: Concept and Types
(ii) Information Literacy Models Concept & Importance of User Education
(iii) User Education Methods
Paper XVI: Information Technology Applications (Practical)

(i) Digitization  
(ii) Creation & Maintenance of Digital Library  
(iii) Library Automation

Note: 20 marks will be reserved for viva-voce in Semester Exam.