## School of Library and Information Science
### Central University of Gujarat

Master of Library and Information Science

**COURSE AND CREDIT STRUCTURE**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LIS-401</td>
<td>Knowledge Society</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LIS-402</td>
<td>Knowledge Organization I: Classification (Theory &amp; Practice)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-403</td>
<td>Knowledge Processing I: Cataloguing (Theory &amp; Practice)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-404</td>
<td>Information Sources and Services</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LIS-405</td>
<td>Information Communication Technology (Theory &amp; Practice)</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>LIS-451</td>
<td>Management of Libraries and Information Centres</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LIS-452</td>
<td>Information Storage and Retrieval</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LIS-453</td>
<td>Knowledge Organization II: Classification (Theory &amp; Practice)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-454</td>
<td>Knowledge Processing II: Cataloguing (Theory &amp; Practice)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-455</td>
<td>Library Automation (Theory and Practice)</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>LIS-501</td>
<td>Research Methodology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LIS-502</td>
<td>Digital Libraries (Theory)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-503</td>
<td>Web Technologies and Web-based Information Management (Theory and Practice)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-541</td>
<td>Digital Libraries (Practice)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-542</td>
<td>Library Internship in a Recognized Library/Information Centre</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>LIS-551</td>
<td>Knowledge Management</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LIS-552</td>
<td>Informetrics and Scientometrics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-571*</td>
<td>Social Science Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-572*</td>
<td>Community Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-573*</td>
<td>Science Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LIS-574*</td>
<td>Agricultural Information Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LIS-575*</td>
<td>Health Information Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LIS-591</td>
<td>Dissertation</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Total credits</strong></td>
<td></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

*Students are required to select any one course from LIS-571 to LIS-575*
SEMESTER I

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Knowledge Society</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-401</td>
</tr>
<tr>
<td>Semester</td>
<td>1</td>
</tr>
<tr>
<td>Credits</td>
<td>4</td>
</tr>
</tbody>
</table>

Objectives of the Course:

- To introduce the basic concepts of knowledge and its formation
- To understand the influence of knowledge in the society
- To understand the process of communication

Course Content:

- Evolution of Knowledge Society, Components, Dimensions, and Indicators of Knowledge Society. Data, Information, and Knowledge-Conceptual Differentiation; Knowledge based Institutions: different kinds; objectives and functions; library as a social and knowledge institution
- Information and communication: Models, channels and barriers; Diffusion of Innovations; trends in scientific communication
- History of Libraries: ancient, medieval, modern
- Five Laws of Library Science
- Legislative framework for library development and information provision; Public Library legislation; Delivery of Books Act; Right to Information Act; IPR and Copyright
- National Information Policy; Components; National Knowledge Commission, professional ethics, professional bodies and association (National and international). Information profession; Professional Ethics, Professional Bodies (national and international) and their activities.
- Information Literacy: Purpose, functions, objectives and models. Information Literacy – Global Perspectives

Method of Teaching: Lectures, Seminars, Library visits, Fieldtrips, etc.
Method of Assessment and Weightage: Assignment, Written Exam

Recommended Readings


<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Knowledge Organization I: Classification (Theory &amp; Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-402</td>
</tr>
<tr>
<td>Semester</td>
<td>1</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
- To understand the importance of library classification in organization of knowledge.
- To understand the formation of subjects in the Universe of Subjects and be acquainted with major schemes of classification. To know the different schemes of classification
- To develop skills of classification.
- To develop skills in subject analysis and synthesis of different facets.
- To develop proficiency in using Colon Classification and Dewey Decimal Classification to construct Class Numbers for documents of different disciplines / subjects.

**Course Content:**

**Theory**
- Universe of Subjects: Formation, structure and development of subjects
- Library Classification: Meaning and Purpose; Historical Perspectives, Mapping of Universe of subjects in major schemes of Library classification – Dewey Decimal Classification, Universal Decimal Classification, Library of Congress Classification and Colon Classification.
- General Theory of Classification; Normative Principles; Three planes of work; Five Fundamental Categories: PMEST; Facet Analysis- Postulates; Principles of facet sequence. Principles of helpful sequence.
- Call Number and its components

**Practice**

**Construction of Class Numbers for documents of different disciplines / subjects using Dewey Decimal Classification 22nd or 23rd edition.**
- Introduction to the use of the DDC
- Analysis of a work; direct approach; Main classes, Divisions and Sections
- Use of notes likes “scope”, “Inclusion”, “Class here” “Optional provision” etc.
- Using synthetic features: Add from schedules
- Use of Table 1 ‘Standard Subdivisions’; Table 2 ‘Area’; Table 3 ‘Subdivisions of individual literature’; Table 4 ‘Subdivisions of individual languages’; Table 5 ‘Racial, Ethnic, National Groups’, and Table 6 ‘Languages’.

**Construction of Class Numbers for documents of different disciplines / subjects using Colon Classification 6th Revised edition**
- Steps in classification, Basic subjects (including canonical classes), Systems and specials.
- Compound subjects, Fundamental categories, Facet sequence, Rounds and Levels, and synthesis of class number.
- Use of Anteriorising and posteriorising Common isolates, Language isolates, Space isolates & Time isolates.
- Use of different Devices.
- Dealing with complex subjects, complex isolates and complex array isolates.

**Recommended Readings**
<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Knowledge Processing – I: Cataloguing (Theory &amp; Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-403</td>
</tr>
<tr>
<td>Semester</td>
<td>1</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
- To be acquainted with the theory of Library Cataloguing
- To understand different catalogue codes and standards for bibliographic description.
- To practice cataloguing of different types of books.
- To understand the rules and practices of document description for books (Monographs) according to Anglo American Cataloguing Rules-2R.

**Course Content**

**Theory**
- Purpose, function and objectives of library catalogue; Library catalogue and similar other tools: Bibliographies, Publisher’s catalogue, Accession list and Shelf list
- Evolution of the physical forms of the library catalogue
- Inner forms of library catalogue
- Standards for Bibliographic Organization; International Standard Bibliographic Description (ISBD), Functional Requirements of Bibliographic Records (FRBR)
- Catalogue Codes – Classified Catalogue Code, Anglo - American Cataloguing Rules 2 and Resource Description and Access (RDA)

**Practice**

**Preparing Catalogue Entries (Main, Added and Reference Entries) for Books (Monographs) using Anglo American Cataloguing Rules -2 revised edition and Assigning Subject Headings to all entries (Using at least one Standard Subject Heading)**

- Single Personal Authorship; Joint Authorship; Works of more than three Authors
- Collaborative Works; Series; Multivolume Works; Pseudonymous Authors
- Composite Works
- Corporate Authorship: a) Government Publications b) Proceedings of Conferences, Seminars, Workshops, etc. c) Other Corporate Bodies: Organizations, Institutions, Societies, etc.
- Uniform Titles; Sacred Scripture; Anonymous Works

**Method of Teaching:** Lectures, Practical Sessions, Seminars, Online presentations, Library Visits.

**Method of Assessment:** Assignments/ Journal Work; mid-term and end term written examinations: to assign class numbers with verification to different subjects using Colon
Classification 6\textsuperscript{th} Revised edition and to prepare Catalogue Entries (Main, Added and Reference Entries) for Books (Monographs) using Anglo American Cataloguing Rules -2 revised edition.

**Recommended Readings**

Name of the Programme | Master of Library and Information Science
--- | ---
Course Title | Information Sources and Services
Course Number | LIS-404
Semester | 1
Credits | 4

Objectives of the Course:

- To understand the different types of information sources (print and digital), systems and services
- To study various categories of Information systems
- To study Information Needs, use and user studies, information literacy
- Understand the significance of referral centres, information analysis centres, databanks etc

Course Content:

- Information sources –Documentary and Non-Documentary; Primary, Secondary and Tertiary Sources and their characteristics. Regional language information sources and services; Govt. Information Sources
- Different categories of information systems: libraries, documentation centres, information clearing houses, referral centres, information analysis centres, databanks etc; their structure, functions, products, and services;
- National & International information organizations, systems, centres, programs
- Web Resources: Blogs, Portals, Wikies, Subject Gateways & Virtual Libraries, Social Book Marking etc.
- Information Needs, use and user studies, information literacy. Information Products and Services: Document Delivery, Current Awareness sources and services; Trend Reports, Information Analysis and Consolidation Products and services.
- Reference and Information Services, Virtual/Digital Reference Services
- Recent Trends: E-alerts, Web alerts, Web 2.0 tools for delivering information services and others

Method of Teaching: Lectures, Brainstorming Sessions, Seminars, library visits, outreach, etc.

Method of Assessment and Weightage: Assignment, Written Exam

Recommended Readings

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td></td>
<td>(Theory &amp; Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-405</td>
</tr>
<tr>
<td>Semester</td>
<td>1</td>
</tr>
<tr>
<td>Credits</td>
<td>4</td>
</tr>
</tbody>
</table>

Objectives of the Course:
- To introduce the students with the basics of ICT and related issues
- To study Hypertext, Hypermedia, Multimedia and File Formats
- To understand Open Source Software

Course content - Theory:
- Evolution of digital computers; Computers hardware, software, storage devices and their application in libraries
- Operating Systems: Linux, Windows, Shell programming
- Computer software applications - MS Office and Open Office
- Hypertext, Hypermedia, Multimedia and File Formats, User Interfaces and data visualization
- Networks and networking concepts; Internet; World Wide Web; Search Engines
- Open Source Software applications in libraries

Course Content - practical
- Operation of computers and connecting the various components
- Linux and Windows installation
- MS Office and Open Office
- Web searching and evaluation

**Method of Teaching:** Lectures, Practical Sessions, Seminars, and Projects.

**Method of Assessment and Weightage:** Assignment, Presentation, Written Exam, Practical

**Recommended Readings**

SEMMETER II

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Management of Libraries and Information Centres</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-451</td>
</tr>
<tr>
<td>Semester</td>
<td>2</td>
</tr>
<tr>
<td>Credits</td>
<td>4</td>
</tr>
</tbody>
</table>

Objectives of the Course:
- To introduce the students with the basics of library and information science
- To create understanding about Human Resource and Financial and space Management
- To understand Performance parameters and Library reporting

Course Content:
- Management functions – planning, organizing, staffing, leading, Budgeting and controlling. Project Management: PERT, CPM, Management of change; Reporting: Types of reports: Annual Report-compilation, contents and style, Library statistics. Preservation of Library materials, Library Building, Library space planning,
- Human Resource Management: Delegation, communication and participation, Job description and analysis; Job evaluation, Inter-personal relations, Recruitment procedures, Motivation; Group dynamics, Training and development, Discipline, grievances, performance appraisal.
- Financial Management: budgeting and different types of budgets- PPBS, ZBB, Line Budget; Costing, cost and benefit analysis, Resource mobilization. Outsourcing.
- Performance parameters: Measurement, Reengineering. Time and Motion Study, SWOT; TQM - Definition, concept, elements, Quality audit, LIS related standards, Technology management, ISO 9000 series
- Marketing of library & information services

Method of Teaching: Lectures, Seminars, Study tours, Case Studies, etc.
Method of Assessment and Weightage: Assignment, Written Exam

Recommended Readings

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Information Storage and Retrieval</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-452</td>
</tr>
<tr>
<td>Semester</td>
<td>2</td>
</tr>
<tr>
<td>Credits</td>
<td>4</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
- To understand the historical perspectives and significance of Information storage & retrieval in the present context.
- To study various models, methods, techniques of Information Retrieval and search strategies
- Understand the significance of data security, evaluation of IR process for effectiveness.

**Course Content:**
- Information Retrieval and Vocabulary Control: Information Retrieval: Concepts, Features, Components & process, Genesis & Development
- Subject Indexing and Vocabulary Control: Concept & Need, Derived Indexing: Printed indexes & Database access systems; Subject Heading Lists, Thesaurus: Structure and Functions and design, Trends in Indexing: Automatic Indexing etc.; Name Authority Control & Access Points
- Subject Indexing Techniques: Chain Indexing, Postulate Based Permuted Indexing System(POPSI), Preserved Context Indexing System(PRECIS); Post-Coordinate Indexing Systems: Concept, Uses & Types: UNITERM Indexing System, Optical Coincidence System, Batten System, Citation Indexing: Concept and development. Online Citation Indexing Tools: SCOPUS, Web of Science, Google Scholar, CiteSeerX Beta etc.
- Models based on Theories and Tools: Boolean model, Vector space model, Mathematical model
Techniques & Refinement, Information Retrieval Beyond Text, Information Retrieval Beyond English

- Evaluation of Information Retrieval Systems: Methods and Parameters; Current Trends in IR Systems, research and development

**Methods of Teaching:** Lectures, Practical Sessions, seminars, etc.

**Methods of Assessment:** Assignment, Presentation, Written Exam, Practical

**Recommended Readings**
2. Clevland, Donald B and Cleveland, Anna D. 1990. Introduction to Indexing and Abstracting, 2nd ed., USA: University of Michigan
Name of the Programme | Master of Library and Information Science  
Course Title | Knowledge Organization II: Classification (Theory & Practice)  
Course Number | LIS-453  
Semester | 2  
Credits | 3

Objectives of the Course:
- To highlight the importance of canons in the design of classification schemes.  
- To develop acquaintance with the ontologies and folksonomies.  
- To develop skills of classification and subject analysis.  
- To develop proficiency in using Universal Decimal Classification to construct Class Numbers for documents of different disciplines / subjects.

Course Content

Theory
- Canons for classification.  
- Notation: Kinds, special features  
- Relevance of classification in the context of digital libraries  
- Trends in Library classification  
- Classaurus, automatic classification, Web Dewey  
- Ontologies and Folksonomies: OWL and SKOS

Practice
- Construction of Class Numbers for documents of different disciplines / subjects using Universal Decimal Classification.

Recommended Readings

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Knowledge Processing II: Cataloguing (Theory &amp; Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-454</td>
</tr>
<tr>
<td>Semester</td>
<td>2</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Objectives of the course**

- To be acquainted with metadata and its standards.
- To understand Bibliographic Formats and Standards, deriving subject headings.
- Preparing Catalogue Entries (Main, Added and Reference Entries) for Non-Book Materials including electronic resources using Anglo American Cataloguing Rules- Second revised edition.

**Course Content**

- **Theory**
  - Bibliographic Standards: MARC, UNIMARC, MARC21, MARC XML, MARC family of Formats, Authority Files, CCF; ISO 2709; Retro conversion
  - Metadata and metadata standards: Dublin Core
  - Subject Cataloguing: Vocabulary control devices. Lists of Subject Headings, Thesauri. General theory of subject indexing languages (SIL)
  - Co-operative Cataloguing, Centralized Cataloguing, CIP, Pre-Natal Cataloguing; Union Catalogue - WorldCat, IndCat
  - Recent trends in cataloguing: Copy Cataloguing, Next generation catalogues, Web scale discovery services

- **Practice**
- Preparing MARC 21 records
  - Serials
  - Cartographic Materials
  - Manuscripts
  - Graphic Materials
  - Printed Music
  - Sound Recordings
  - Motion Pictures & Video Recordings
  - Micro Forms
  - Electronic Resources

**Method of Teaching:** Lectures, Practical Sessions, Seminar

**Method of Assessment:** Assignments/ Journal Work; mid-term and end term written examinations: to assign class numbers with verification to different subjects using Dewey Decimal classification 22nd or 23rd edition and to prepare Catalogue Entries (Main, Added and Reference Entries) for Non-Book Materials using Anglo American Cataloguing Rules -2 revised edition.

**Recommended Readings**

3. Cutter, C A. *Cutter-Sanborn. Figure Author Table.*

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Library Automation (Theory and Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS 15</td>
</tr>
<tr>
<td>Semester</td>
<td>2</td>
</tr>
<tr>
<td>Credits</td>
<td>4</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
• To familiarise students with library automation, and retrieval process.
• To familiarize students with different Integrated Library System software (ILS)
• To provide hands on experience with Integrated Library System software (ILS)

Course Content:
• Library Automation: Definition, need, purpose and advantages.
• Planning for Automation: Steps in Automation - Developing a basic technology plan; Identifying goals and objectives; Describing existing library services and technology; Assessing needs and priorities.
• Understanding the features of some Library Management Software package. Selection criteria for Library management software. Hardware and Software selection; and Implementation.
• Areas of Automation: Design and development of automated system for Acquisition, Cataloguing, Access to Catalogue (OPAC), Circulation and Serial Control.
• Barcode Technology: Meaning, need, purpose and advantages. Types of barcodes and their application. RFID technology and its application in libraries.
• Integrated Library Systems: SOUL, WINISIS, Koha
• Artificial Intelligence (AI): Concept, use. Expert Systems / Knowledge based systems and its application in Libraries and Information Centres
• Designing Library Website

Practice
• Soul, WINSIS and Koha
• Library website designing

Recommended Readings:

SEMESTER III

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Research Methodology</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-501</td>
</tr>
<tr>
<td>Semester</td>
<td>2</td>
</tr>
<tr>
<td>Credits</td>
<td>4</td>
</tr>
</tbody>
</table>

Objectives of the Course:
- To understand the research methods and process
- To understand on both quantitative techniques for data analysis and consolidation
- To develop the skills of report writing

Course Content:
- Research – concept, meaning, need and process of research; types of research: fundamental and applied including inter-disciplinary and multi-disciplinary approach. Research Design – conceptualization and operationalization; Identification and formulation of problems; Hypothesis: Nominal and operational definition, ethic aspects. Review of Literature, Writing research proposals.
- Research Techniques and Tools sampling and methods sampling. Tools for data gathering -- Questionnaire, interview, observation, methods of data analysis using statistical methods and techniques including Bibliometrics, Scientometrics, Informetrics and Webometrics
- Use of statistical package: SPSS or SAS or any other well-tested and proven packages.
- Research Reporting – structure, style, concepts, guidelines for research reporting, style manuals – Chicago, MLA, APA etc. and Current Trends in Library & information science Research.

Methods of Teaching: Lectures, brainstorming sessions, etc.
Methods of Assessment: Assignment, Written Exam
Recommended Readings:

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Digital Libraries (Theory)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-502</td>
</tr>
<tr>
<td>Semester</td>
<td>3</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
- To sensitize students with the important events in the Open Access Movement, Institutional repositories and Digital Libraries.
- To familiarize students with the Digital Rights management and Copyright issues.
- To provide hands on experience with design, development and implementation of Digital Libraries as case studies.

**Course Content:**
- Foundations of Digital Libraries; Open Access and Institutional Repositories; Multilingual Digital Repositories.
- Standards and Protocols for Digital Libraries: Character Encoding Standards, Metadata Standards, Persistent Identifiers & DOI, OAI-PMH.
- Digital Library Initiatives: National and International; Case studies of digital libraries.

**Methods of Teaching:** Lectures, Brainstorming Sessions, Case Studies and Practical Sessions, etc.

**Methods of Assessment:** Assignment, Presentation, Written Exam, Study tour

**Recommended Readings**

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Web Technologies and Web-based Information Management (Theory and Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS- 503</td>
</tr>
<tr>
<td>Semester</td>
<td>3</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Objectives of the Course:
- To introduce the concept of Web technologies, mark up languages and Network protocols
- To understand the process of web programming, database connectivity
- To study the implications of Web 2.0 technologies to library and information management.

Course Content:
- Network Protocols: TCP/IP, FTP, SSHD, SOAP, etc.
- Web Programming: java scripts and JSP
- Database connectivity: ODBC, JDBC, Web servers: Apache etc.
• Search Engines, cluster based search engines and building search engines. Search Algorithms
• Web 2.0: RSS feeds, Blogs, Wikies etc; social media
• CMS (Content Management Systems): Concept, Types and Principles, CMS Architecture, CMS Software; Content Creation for Web; tools for content creation

Methods of Teaching: Lectures, Brainstorming Sessions, Practical Sessions, Case Studies, etc.
Methods of Assessment: Assignment, Presentation, Written Exam, Practical creation of a blog/subject guide/wiki

Recommended Readings

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Digital Libraries (Practice)</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS- 541</td>
</tr>
<tr>
<td>Semester</td>
<td>3</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Objectives of the Course:
• To provide hands on experience with design, development and implementation of Digital Libraries

Course content for Practicals:
• Digital Library: Tools and techniques and Software
• Digital Preservation and Selection of Materials for Digitization
• Open Source Software for Digital Library Creation
• Creation of Digital Library using at least one Open Source Software using open source software like DSpace, GSDL, Fedora, Eprints, etc.

**Methods of Teaching:** Lectures, Practical Sessions, etc.
**Methods of Assessment:** Assignment, Presentation, Practical

**Recommended Readings**


<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Title</strong></td>
<td>Library Internship in a Recognized Library/Information Centre</td>
</tr>
<tr>
<td><strong>Course Number</strong></td>
<td>LIS-542</td>
</tr>
<tr>
<td><strong>Semester</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td>5</td>
</tr>
</tbody>
</table>

An internship is an individualized training program that combines learning new library skills outside the classroom and the demonstration of those skills according to a planned schedule of activities. An intern works with an advisor/supervisor selected for the purpose to develop a practical training program on a particular aspect of librarianship. The duration of the internship would be four weeks.

**Objectives of the Course:**
Any library internship training serves the purpose of both – the intern as well as the host library/institution. It is supposed to add value to both the parties. These objectives are:

- to increase the knowledge and skills of recent graduates;
- to upgrade their skills in a specific area of information service;
- to train them in order to boost their efficiency for crucial department/section;
- to train them to adopt to the existing working conditions in the home library;

Content:
- Students must undergo a four-week internship in a library of their choice.
- A report of the internship has to be submitted to the school.

Methods of Teaching: Brainstorming sessions with Guide/Internship Supervisor
Methods of Assessment: Study Report, Assessment by Internship Supervisor

Recommended Readings

Objectives of the Course:

- To familiarize students with concepts, types and infrastructure of KM
- To understand the functioning of Knowledge Economy
- To plan and evaluate strategies for KM practices

Course Content:

- Knowledge Management: Concepts, types, theories and principles
- Knowledge economy – features / characteristics, national information infrastructure, complex nature of knowledge, taxonomy of knowledge & Knowledge Management (KM) strategies.
- Technology for KM -- KM enabling tools, knowledge portals and its characteristics, knowledge sharing and various sharing models, knowledge culture etc.
- Strategies for implementing KM practices. Case Studies

Methods of Teaching: Lectures, Brainstorming Sessions, Case Studies etc.

Methods of Assessment: Assignment, Written Exam

Recommended Readings

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Informetrics and Scientometrics</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-552</td>
</tr>
<tr>
<td>Semester</td>
<td>4</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
- To familiarize students with the fundamentals of Bibliometrics, Scientometrics, Informetrics and Webometrics
- To study various indicators of publication productivity
- To understand the significance of scientific collaborations

**Course Content:**
- Concept and Definition of Bibliometrics, Scientometrics, Informetrics and Webometrics. Pioneers in Bibliometrics, Scientometrics, Informetrics and Webometrics Limitations of Bibliometrics, Scientometrics, Informetrics and Webometrics
- Indicators of publication productivity. Factors influencing publication productivity Publication Productivity of Institutions and National research activity. Publication productivity by discipline Publication productivity dynamics of institutions, regions or countries, journals and Individuals Scientific Collaboration. Co-authorship as a measure of scientific collaboration. Collaboration rate. International Collaboration
- Indicators of citation Impact. What is citation? Reasons for citing. Citation Indexes. Citation databases (Scopus, Web of Knowledge, Google Scholar etc.,). Application of citation indexes. Factors that influence citation impact. Journal citation measures: the impact factor, immediacy index, half-life etc., Relative citation indicators Role of H-Index in evaluation. Co-Citation coupling and bibliographic coupling analysis.
- Emerging Trends in Bibliometrics, Scientometrics, Informatics, Webometrics and Altmetrics

**Methods of Teaching:** Lectures, Brainstorming Sessions, etc.
**Methods of Assessment:** Assignment, Written Exam
**Recommended Readings:**

1. E. Garfield. 1979. *Citation indexing: It's theory and application in science, technology and humanity*. New York: John Wiley and Sons

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Social Science Information Systems</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-571</td>
</tr>
<tr>
<td>Semester</td>
<td>4</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

**Objectives of the Course:**
- To understand the structure and development of social sciences
- To study the various components of social science information systems
- To study the activities of national institutes of social sciences

**Course Content:**
- **Information System:** Basic Concepts, Components, Types and Characteristics of an Information System.
- **Structure and Development of Social Sciences:** Definition Scope, Landmarks and research Trends in the disciplines of Humanities, Political Science, Public Administration, Economics, management, Sociology History, Psychology and Education.
- **Social Science Information System: Components:** Sources: Types and Media: Print and Non-Print, Electronic and Web Based. Institutions connected with Social Science Information Generation and Dissemination.
- **Social Science Databases:** Critical study of Social Science Databases such as PROQUEST, Web of Knowledge, JSTOR, POPLINE, PsychInfo, Emerald, Census India, IndiaStat, etc.

**Methods of Teaching:** Lectures, Brainstorming Sessions, Field trips/ study tour, Case Studies etc.
**Methods of Assessment:** Assignment, Written Exam
Recommended Readings:


<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Community Information Systems</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-572</td>
</tr>
<tr>
<td>Semester</td>
<td>4</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Especially useful for those interested in public or community libraries, youth services, university public engagement, social work, education, and anyone interested in working with or studying underserved communities.

Objectives of the Course:

- Studies how local, historical communities use information and communication technologies or otherwise access, create, organize, and share information.
- To familiarize students with the meaning, definition, use and implications of Community Information Systems.
- To study various source of community information like invisible colleges, folklore, mass media, etc.
- To understand the significance of application of ICT in community information system set up.
Course Content:

- Information System: Basic Concepts, Components, Types and Characteristics of an Information System.
- Meaning, definition, need, scope, uses and implications of Community Information Systems
- Survey of an emerging field that covers key principles for working in libraries or the wider non-profit/public sectors as individuals, organizations, and communities harness new technologies and media. Evaluation of Existing Information Systems and Networks in Social Sciences at National and International Level
- Setting up of Community Information System – Needs analysis, planning, designing, application, executing, and evaluation. Invisible colleges; Folklore; Mass media etc.
- Sustainability studies – funding, executing, evaluation, reporting.
- Design and development of Information System for NGO’s

Methods of Teaching: Lectures, Brainstorming Sessions, Field trips/ study tour, Case Studies etc.

Methods of Assessment: Assignment, Written Exam

Recommended Readings

Objectives of the Course:

- To familiarize students with the meaning, definition, use and implications of Science Information Systems
- To study various sources of scientific information like invisible colleges, social media, open sources, databases, etc.
- To understand the significance of application of ICT in scientific information system setup

Course Content:

- **Information System**: Basic Concepts, Components, Types and Characteristics of an Information System.
- **Structure and Development of Social Sciences**: Definition Scope, Landmarks and research trends in the disciplines of pure and applied sciences.
- **Science Information System: Components**: Sources: Types and Media: Print and Non-Print, Electronic and Web Based. Institutions connected with Science Information Generation and Dissemination.
- **Study of the activities of Science Institutes and Organizations at the national and international levels**: Evaluation of Existing Information Systems and Networks in Social Sciences at National and International Level. Indian National Science Academy, BARC, Indian Institute of Technology (IIT), Indian Space Research Organization ISRO; NISCAIR, DESIDOC, NCSI, NISSAT, ENVIS, NSTMIS, Biotechnology Information System Network, National Informatics Centre, International Council for Science (ICSU), CERN, NASA, INIS, ASTINFO, PRISM, etc.
Methods of Teaching: Lectures, Brainstorming Sessions, Field trips/ study tour, Case Studies etc.

Methods of Assessment: Assignment, Written Exam

Recommended Readings:


<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Agricultural Information Systems</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-574</td>
</tr>
<tr>
<td>Semester</td>
<td>4</td>
</tr>
<tr>
<td>Credits</td>
<td>3</td>
</tr>
</tbody>
</table>

Objectives of the Course:

- To familiarize students with the meaning, definition, use and implications of Agricultural Information Systems
- To study various source of agricultural information like organizations and databases.
- To understand the significance of application of ICT in community information system set up
Course Content:

- **Information System**: Basic Concepts, Components, Types and Characteristics of an Information System.
- **Structure and Development of Social Sciences**: Definition Scope, Landmarks and research trends in the discipline agriculture and allied sciences.
- **Agricultural Information System: Components**: Sources: Types and Media: Print and Non-Print, Electronic and Web Based. Institutions connected with Agricultural Science Information Generation and Dissemination.
- **Study of the activities of Agricultural Science Institutes and Organizations at the national and international levels**: Evaluation of Existing Information Systems and Networks in Social Sciences at National and International Level Indian Council of Agricultural Research (ICAR), National Science Academy, Consortium for e-resources in Agricultural Science (CeRA), Agricultural Science and Technology Information System (AGRIS), FAO, Consultative Group on International Agricultural Research (CGIAR)
- **Agricultural Science Databases: Internet-based scientific information sources and services**: Critical study of Open source and commercial agricultural science Databases : PGR portal, ROHU Database, SCOPUS, Web of Knowledge, PloS, etc.

Methods of Teaching: Lectures, Brainstorming Sessions, Field trips/ study tour, Case Studies etc.

Methods of Assessment: Assignment, Written Exam

Recommended Readings:

Name of the Programme | Master of Library and Information Science
---|---
Course Title | Health Information Systems
Course Number | LIS-575
Semester | 4
Credits | 3

Objectives of the Course:

- To familiarize students with the meaning, definition, use and implications of Health Information Systems
- To study various sources of health information like organizations and databases.

Course Content:

- **Information System**: Basic Concepts, Components, Types and Characteristics of an Information System.
- **Structure and Development of Social Sciences**: Definition, Scope, Landmarks and research trends in the disciplines of health sciences.
- **Health Science Information System: Components**: Sources: Types and Media: Print and Non-Print, Electronic and Web Based. Institutions connected with Health Science Information Generation and Dissemination.
- **Study of the activities of Health Science Institutes and Organizations at the national and international levels**: Evaluation of Existing Information Systems and Networks in Social Sciences at National and International Level. Indian National Science Academy, ICMR, National Medical Library, WHO Library, UN

Methods of Teaching: Lectures, Brainstorming Sessions, Field trips/ study tour, Case Studies etc.

Methods of Assessment: Assignment, Written Exam

Recommended Readings:

<table>
<thead>
<tr>
<th>Name of the Programme</th>
<th>Master of Library and Information Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Title</td>
<td>Dissertation</td>
</tr>
<tr>
<td>Course Number</td>
<td>LIS-591</td>
</tr>
<tr>
<td>Semester</td>
<td>4</td>
</tr>
<tr>
<td>Credits</td>
<td>8</td>
</tr>
</tbody>
</table>

The students are required to select a topic for the dissertation in consultation with respective assigned guide and prepare the same during the Second year of the course. The dissertation should be written as an individual work.