

**SAURASHTRA UNIVERSITY**

**RAJKOT**



**MASTER OF LIBRARY AND INFORMATION SCIENCE  
(M.Lib.I.Sc)**

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK  
FOR THE DEGREE OF  
MASTER OF LIBRARY AND INFORMATION SCIENCE  
1 YEAR: 2 SEMESTERS: CBCS BASED PROGRAMME  
[w.e.f. 2019-2020]

**DEPARTMENT OF LIBRARY & INFORMATION SCIENCE  
SAURASHTRA UNIVERSITY  
RAJKOT**

# **SAURASHTRA UNIVERSITY**

## **DEPARTMENT OF LIBRARY & INFORMATION SCIENCE**

### **MASTER OF LIBRARY AND INFORMATION SCIENCE (M.Lib.I.Sc)**

#### **NEW LOCF SYLLABUS FOR THE DEGREE OF MASTER OF LIBRARY AND INFORMATION SCIENCE**

(One Year: Two Semesters: CBCS based Programme)

**w.e.f. 2019-2020**

The Master's programme is designed to widen student's perspective through directed independent study. It lays stress on proper appreciation of the current trends in the field of library & information science. The programme is envisaged to enable him/her to organise library & information services in furtherance of the institutional objectives.

#### **OBJECTIVES OF THE PROGRAMME :**

1. To acquaint the students with the role of information in society, information needed for the different kinds of activities and the economics & management of information and knowledge.
2. To familiarize the students knowledge about the characteristics of the information resources in society.
3. To provide the students advanced knowledge of the application of information technology to information systems and services.
4. To provide the students basic knowledge of the Research Methods and Statistical Techniques.
5. To learn the advanced information processing techniques and develop the capability in retrieving the information by applying different search techniques.
6. To acquaint the students with the activities and services of different Information systems and introduce the repackaging and consolidation techniques.
7. To identify and learn the major issues in the development of new technology in the libraries.
8. To develop skills in using computer and communication technology.
9. To understand the structure and development of the specific subject / discipline and to prepare specialised professional manpower in the subject / discipline for handling information related activities.
10. To introduce modern management techniques to students to manage effectively the libraries and information centres.

## **POST GRADUATE PROGRAMME OUTCOMES**

Students of the PG Degree Programme at the time of graduation will be able to

[PO: 01] ***Critically Think***: Take informed actions after identifying the assumptions that frame thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at ideas and decisions (intellectual, organizational, and personal) from different perspectives.

[PO: 02] ***Effectively Communicate***: Speak, read, write and listen clearly in person and through electronic media in Gujarati Hindi and English, and make meaning of the world by connecting people, ideas, books, media and technology.

[PO: 03] ***Socially Interact***: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

[PO: 04] ***Demonstrate Effective Citizenship***: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

[PO: 05] ***Individual and team work***: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

[PO: 06] ***Ethics***: Recognize different value systems including one's own, understand the moral dimensions of one's decisions.

[PO: 07] ***Life-long learning***: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of information and technological changes.

## **PROGRAMME SPECIFIC ATTRIBUTES IN LIBRARY AND INFORMATION SCIENCE**

The post graduates in Library and Information Science at the time of graduation will have the following attributes:

[PSA: 01] ***Disciplinary knowledge:*** Capable of demonstrating comprehensive knowledge and understanding of major concepts, principles, theories and laws of various subjects in Library and Information Science and other related fields of study, including broader interdisciplinary subfields such as management, economics, information and communication technologies, etc.

[PSA: 02] ***Professional and managerial skills:*** Ability to manage technical staff who shall classify simple, compound and complex documents using standard classification schemes; shall have capability to catalogue all types of documents using standard catalogue codes and metadata standards; ability to manage professionals who shall carry out housekeeping operations and provide library and information services by using information and communication technologies, ability to guide information search from OPAC, Internet and electronic databases.

[PSA: 03] ***Skilled communicator:*** Ability to communicate effectively in oral and written forms with users, colleagues and authorities in an effective manner.

[PSA: 04] ***Critical thinker:*** Capability to critically analyze subjects of documents to help and guide technical staff to classify them properly and guide them to derive subject headings for subject cataloguing, indexing purposes and ability to think critically for solving various problems pertaining to the management of Libraries and Information Centres at local, national, regional and global level.

[PSA: 05] ***Problem solver:*** Apply problem solving skills while providing reference and other services and for formulating search strategies for searching information from Internet and databases.

[PSA: 06] ***Team leader and player:*** Capable of leading and working effectively in diverse teams at top and middle levels of management in parent institution and in Libraries and Information Centres.

[PSA: 07] ***Digitally literate:*** Capable of using digital technology for communication purpose, for library housekeeping operations, and for searching information from OPAC, Internet and online databases.

[PSA: 08] ***Ethical awareness/reasoning:*** Capable of demonstrating the ability to identify ethical issues related with LIS Profession, Intellectual Property Rights, Copyright etc. while providing library services.

[PSA: 09] ***Lifelong learners:*** Capable of self-paced and self-directed learning aimed at personal development; for improving knowledge and skills and for re-skilling through continuing educational opportunities.

## **PROGRAMME SPECIFIC OUTCOMES OF MASTER DEGREE IN LIBRARY AND INFORMATION SCIENCE**

The programme specific learning outcomes of Master degree in Library and Information Science include the following. The Master level post graduates in Library and Information Science at the time of graduation will be able to:

[PSO: 01] Demonstrate in depth knowledge of the basic as well as advanced concepts, principles, theories and laws related with the broad field of Library and Information Science and its sub-fields such as types of libraries, types of information sources, library management, reference and information services.

[PSO: 02] Demonstrate understanding of rationality and procedures of (i) selection, acquisition, classification, cataloguing and physical processing of documents; (ii) using Information and Communication Technologies in Libraries and Information Centres; (iii) providing library and information services and managing other library routine activities.

[PSO: 03] Apply skills in managing and carrying out professional activities such as (i) acquisition, accessioning, classification, cataloguing, and physical processing of documents; (ii) housekeeping operations using library management software and Information and Communication Technologies; (iii) maintaining library collection (iv) educate users

[PSO: 04] Demonstrate managerial skills in provision of various library services such as document circulation, reference and information services, Internet and database searching.

[PSO: 05] Demonstrate knowledge, understanding and managerial skills that offer job opportunities as librarians in different types of college libraries, as assistant librarian/ senior technical professional in university libraries and other libraries of higher education institutes, as librarians in public libraries and school libraries; as librarians and/or assistant librarians in corporate and industrial libraries, libraries of research institutes, etc.

[PSO: 06] Demonstrate professional attitude through commitment for providing every user his/her document/information; ensuring every document/information its user; saving time of the user and enhancing use of reading material and user satisfaction through effective and efficient library services.

[PSO: 07] Demonstrate core values by honouring diversity and insuring inclusion by treating all patrons, students and colleagues with respect and dignity, showing respect for and sensitivity to gender, culture and religious differences; and challenging prejudice, biases and intolerance at the workplace etc. and displaying professional and ethical integrity which involves honest behaviour.

**The Scheme of Papers & Examination Pattern for one year M.Lib.I.Sc. Programme (LOCF) (CBCS Semester System) shall be as follows :-**

**SEMESTER – I**

Course Code	Title of the Course	Credits	Theory	Practical	Examination Marks		Total Marks	Duration of Exam.
					Ext.	Int.		
CCT-01	Information and Communication	4	100	--	70	30	100	2.5 Hrs.
CCT-02	Library Automation & Networking	4	70	30	70	30	100	2.5 Hrs.
CCT-03	Research Methods & Statistical Techniques	4	100	--	70	30	100	2.5 Hrs.
ECT-01	Information Sources, Services & Systems in Humanities & Social Science OR Science & Technology	4	70	30	70	30	100	2.5 Hrs.
ICT-01	Information Systems & Products	4	100	--	70	30	100	2.5 Hrs.
	<b>TOTAL FOR SEMESTER – 1</b>	<b>20</b>	<b>440</b>	<b>60</b>	<b>350</b>	<b>150</b>	<b>500</b>	

**SEMESTER – II**

CCT-06	Information Processing & Retrieval	4	70	30	70	30	100	2.5 Hrs.
CCT-07	Information Technology Application	4	100	--	70	30	100	2.5 Hrs.
CCT-08	Management of Lib & Info Centres	4	100	--	70	30	100	2.5 Hrs.
ECT-02	Academic Library System & Services OR Industrial Library System & Services OR Health Sciences Library System & Services	4	100	--	70	30	100	2.5 Hrs.
ECT-03	Dissertation OR Project work	4	70	30	70	30	100	2.5 Hrs.
	<b>TOTAL FOR SEMESTER – 2</b>	<b>20</b>	<b>440</b>	<b>60</b>	<b>350</b>	<b>150</b>	<b>500</b>	
	<b>TOTAL FOR SEMESTER 1 AND 2</b>	<b>40</b>	<b>880</b>	<b>120</b>	<b>700</b>	<b>300</b>	<b>1000</b>	

# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INFORMATION AND COMMUNICATION  
Course Unique Code: 1901340202010100  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	1	Core	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

#### Objectives of the Course :

- To acquaint the students with the role of information in society,
- To understand information needed for the different kinds of activities
- To know about the economics & management of information and knowledge
- To get familiarize with the characteristics of the information resources in society

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend the concepts of Data, Information, Knowledge and fair use of information.
2. Understand the role of information in society and communication channels.
3. Know about Information Science as a discipline.
4. Elaborate the concepts of Information Society and Knowledge Society
5. Figure out the changing role of libraries and information centres in society
6. Understand various law, act, policies, commission, and mission relating to information.
7. Know about the economics & management of Information and Knowledge
8. Understand various concepts of Informetrics.

#### Course Contents :

##### Unit-I Information and Communication

- Information; Characteristics, Nature, Value and Use of Information
- Conceptual difference between Data, Information and Knowledge
- Communication of Information : Information generation
- Communication channels, models and barriers
- Trends in Scientific Communication

## **Unit-2 Information Science**

- Definition, Scope and Objectives
- Information Science as a discipline and its relationship with other subjects

## **Unit-3 Library, Information and Society**

- Genesis and characteristics and implications of Information Society
- Changing role of Library and Information Centres in Society
- Intellectual Property Act, Right to Information Acts
- Concept of freedom, censorship, data security and fair use
- Policies relating to information, Right to Information including science and technology, education
- International and National Programmes and Policies (NAPLIS) IT and Library UAP, UBC, NKC, NML

## **Unit-4 Economics of Information**

- Information as economic resource /Commodity.
- Information Industry-Generators, providers and intermediaries.
- Marketing of Information

## **Unit-5 Knowledge Management**

- Knowledge Management: Definition, Need and Implementation
- Information Management:
- Information Management vs Knowledge Management.

## **Unit-6 Informetrics**

- Concept and Definition
- Citation Analysis
- Bibliographic Coupling.
- Librametry, Bibliometrics and Scientometrics, Webometrics: Concept, Scope, Usefulness.
- Bibliometric Laws – Bradford, Lotka and Zipf

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: LIBRARY AUTOMATION & NETWORKING  
Course Unique Code: 1901340202010200  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	1	Core	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** 10 marks each for practical work on library software, online searching, and web page designing, Total 30 marks]

#### Objectives of the Course :

- To understand various aspects of library automation.
- To develop skills in using computer and communication technology.
- To acquaint the students with the basic concept of computer networks
- To develop familiarity with use of Internet in libraries
- To acquaint the students with basics of AI and web designing
- To develop familiarity with some library management software.

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend various aspects of library automation.
2. Elaborate library Automation planning and Procedures
3. Assess various integrated library management software.
4. Carry out various automated in-house library operations.
5. Understand basic concept of computer networks and use of Internet in libraries.
6. Explore use of AI, expert systems, robotics, cloud computing and web applications

#### Course Contents :

##### Unit-1 Library Automation

- Definition, need, purpose and advantages.
- Planning for Automation Procedure: Steps in Automation: Developing a basic Technology Plan.
- Identifying goals and objectives, Describing existing library services and technology, Feasibility Study, Assessing needs and priorities, Preparing strategic Plan, Hardware and Software selection and Implementation
- Library Automation Software Packages: their study and composition

## **Unit-2 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: Dumb /Generic barcode and smart barcode – their application.
- RFID, QR Code, Biometric, Smart Card; Features and Application.

## **Unit-3 Networking and Networks**

- Networking: Concept need and advantages. Basic components of network
- Network Topologies – Star, Ring, Bus, and Tree.
- Wireless Networking.
- Types of Networks – LAN, MAN, WAN.
- Local Area Network – Types and Topologies
- Networks: General and Bibliographic.
- General – ERNET, NICNET, INFONET
- Library Networks: OCLC, BLAISE, JANET, INFLIBNET, DELNET: Their objectives, Functions, Services and Activities.

## **Unit-4 Internet**

- Internet: Concept, Features, Services.
- Search Engines – Concept. Types–Search Engines and Meta and Entity Search Engines. Advantages in using Search Engines
- Internet Searching: Web Browsers – Purpose, Functions, Facilities available with different Browsers.
- Internet Security
- Internet Reference Sources: Identification, accessing.
- Various sources useful for librarians in providing Reference Services.
- Evaluation of Internet Information Sources – Need, Methods / Techniques

## **Unit-5 Artificial Intelligence and Web Designing**

- Artificial Intelligence (AI): Concept and Use.
- Expert Systems / Knowledge based Systems and Robotics its application in Libraries and Information Centres.
- Web: Concept, Usefulness. Content Creation for Web.
- Semantic Web, Linked Data, Cloud Computing, Ontology - Tools.
- Web Design – Methods, Steps.

## **Practical: (Internal Evaluation: 30 Marks)**

1. Hands on experience with any one Library Management Software (Creation of minimum 50 records by each student)
2. CD-ROM and Online searching
3. Library and Information Centre web page design and creation (Using MS-Front page)

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**SAURASHTRA UNIVERSITY**  
**FACULTY OF ARTS**  
**Syllabus**

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: RESEARCH METHODS AND STATISTICAL TECHNIQUES  
Course Unique Code: 1901340202010300  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	1	Core	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

**Objectives of the Course :**

- To generate awareness about research along with its types and designs.
- To provide the students basic knowledge of the Research Methods.
- To help them understand data analysis and interpretation
- To develop familiarity with various statistical techniques.
- To understand basics of research reporting.

**Course Outcomes :**

**After studying this course, students shall be able to:**

1. Understand basics of research its methods, types and design.
2. Comprehend various data collection, analysis and interpretation techniques.
3. Familiarize with various statistical techniques.
4. Understand basics of research reporting and prepare a research report.

**Course Contents :**

**Unit-1 Research**

- Concept, Meaning, Need and Process of Research
- Types of Research – Fundamental and Applied including inter disciplinary and multidisciplinary approach, LIS Research in India.

## **Unit-2 Research Design**

- Conceptualisation and Operationalisation
- Types of Research Design
- Identification and Formulation of Problem
- Hypothesis; Nominal and Operational Definition
- Designing Research Proposal
- Ethical aspects of Research, Plagiarism : Concept and Types.
- Literature Search – Print, Non-print and Electronic sources.

## **Unit-3 Research Methods**

- Scientific, Historical and Descriptive Methods
- Survey Method and Case Study Method
- Experimental Method and Delphi Method

## **Unit-4 Research Techniques and Tools**

- Questionnaire, Interview and Observation
- Scales and Check lists
- Library Records and Reports
- Sampling Techniques

## **Unit-5 Data Analysis and Interpretation**

- Descriptive Statistics-Measures of Central Tendency; Mean, Mode, Median
- Tabulation and Generalisation
- Measures of dispersion, variance and covariance, correlation, regression
- Standard Deviation
- Graphical presentation of data-bar, pie-line graphs, histograms etc.
- Inferential Statistics

## **Unit-6 Research Reporting**

- Structure, Style, Contents
- Guidelines for Research Reporting

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INFORMATION SOURCES, SERVICES AND SYSTEMS IN HUMANITIES & SOCIAL SCIENCES  
Course Unique Code: 1901340302010101  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	1	Elective-1	4	30	70	00	100

[**Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

[**Structure for Internal Evaluation:** A report on Information Sources of any one selected Discipline]

#### Objectives of the Course :

- To understand the structure and development of the specific subject / discipline in Humanities & Social Sciences.
- To prepare specialised professional manpower in the specific subject / discipline in Humanities & Social Sciences

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend structure and development of Humanities and Social Sciences.
2. Explore various disciplines in the field of Humanities and Social Sciences.
3. Understand information sources, services and systems of Humanities and Social Sciences
4. Highlight the role of available databases in these fields.
5. Plan and design databases in Humanities and Social Sciences when required
6. Carry out professional services in the libraries of Humanities and Social Science institutions

#### Course Contents :

##### Unit-1 Study of the specialized subject / discipline

- Structure and development of the subject/ discipline
- Definition, Terminology,
- Branches and Landmarks in the subject / discipline

##### Unit-2 Information Systems

- Planning, Design and Evaluation of Information Systems

### **Unit-3 Database Design**

- Database Design, Creation and Development in the area pertaining to information components of the subject, study of data structure
- Selection of DBMS and Retrieval aspects
- Content creation and development

### **Unit-4 Information systems and networks in the subject / discipline**

- Study of information sources services
- Internet – based sources & services

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INFORMATION SOURCES, SERVICES AND SYSTEMS IN  
SCIENCES & TECHNOLOGY  
Course Unique Code: 1901340302010102  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	1	Elective-1	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** A report on Information Sources of any one selected Discipline]

#### Objectives of the Course :

- To understand the structure and development of the specific subject / discipline in Science & Technology.
- To prepare specialised professional manpower in the specific subject / discipline in Science & Technology.

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend structure and development of Science and Technology.
2. Explore various disciplines in the field of Science and Technology.
3. Understand information sources, services and systems of Science and Technology
4. Highlight the role of available databases in these fields.
5. Plan and design databases in Science and Technology when required
6. Carry out professional services in the libraries of Science and Technology institutions

#### Course Contents :

##### Unit-1 Study of the specialized subject / discipline

- Structure and development of the subject/ discipline
- Definition, Terminology,
- Branches and Landmarks in the subject / discipline

##### Unit-2 Information Systems

- Planning, Design and Evaluation of Information Systems

### **Unit-3 Database Design**

- Database Design, Creation and Development in the area pertaining to information components of the subject, study of data structure
- Selection of DBMS and Retrieval aspects
- Content creation and development

### **Unit-4 Information systems and networks in the subject / discipline**

- Study of information sources services
- Internet – based sources & services

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**SAURASHTRA UNIVERSITY**  
**FACULTY OF ARTS**  
**Syllabus**

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INFORMATION SYSTEMS AND PRODUCTS  
Course Unique Code: 1901340502010100  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	1	ICT	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

**Objectives of the Course :**

- To acquaint the students with the activities and services of different Information Systems
- To familiarize the students with information systems at national, regional and global level
- To introduce various information products and services
- To develop familiarity with information providers
- To help them understand and appreciate the concept of library consortia.

**Course Outcomes :**

**After studying this course, students shall be able to:**

1. Comprehend the activities and services of different Information Systems
2. Elaborate the role of national, regional and global information systems
3. Understand various traditional and modern information products and services.
4. Know and evaluate various information providers.
5. Manage and provide access to consortia based information products and services

**Course Contents :**

**Unit-1 Information system**

- Basic concepts, Components, Types, Characteristics of an Information System
- Kinds of Information System: Libraries, Documentation Centres, Information Centres, Data Banks. Information Analysis Centres. Referral Centres, Clearing Houses, Archives, Reprographic and translation Centres – their functions and services.

## **Unit-2 National information System**

- Planning and Design
- Concept, Functions and objectives of NATIS, National Information Policy (NIP)
- Planning Design of National Information System (NATIS)
- National Information Systems: NISCAIR, DESIDOC, NASSDOC, NCSI, ENVIS: Structure, functions and services.

## **Unit-3 Regional and Global Information Systems**

- RIS: ASTINFO, APINESS and SAARC (SDC).
- GIS: UNESCO-IFAP, INIS, AGRIS, INSPEC, MEDLARS, SPINES, ICSU, BIOSIS, ERIC.

## **Unit-4 Information Products and Services**

- Concept, Definition, Types of Information Products;
- Techniques in preparation of abstracting journals, newsletter, bulletins, trend reports and state-of-the-art reports
- Information Products Vs Services
- Information Services – Bibliographic, Document Delivery, Alert (CAS & SDI)
- Mobile based Library Services and Tools Mobile OPAC, Mobile Databases Mobile Library Websites, Library Apps, SMS Alerts, Geo-Location.
- Web 2.0 and 3.0, Library 2.0 : Concept Characteristics Components, Instant Messaging, RSS Feed, Podcasts, Vodcasts, Ask a Librarian.
- Collaborative Services : Social Networks, Academic Social Networks, Social Tagging, Social Bookmarking.
- Marketing of Information Products and Services

## **Unit-5 Information Providers**

- IPs: DIALOG, STN, Data Star, UMI, Silver Platter, BLDS, ISI.
- Library Consortia- concept, purpose. Consortia in India – Infonet, INDEST

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INFORMATION PROCESSING & RETRIEVAL  
Course Unique Code: 1901340202020400  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Core	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Practical test based on Indexing techniques, Subject Heading List, and Thesaurus 10 marks each, Total 30 marks]

#### Objectives of the Course :

- To learn the advanced information processing techniques.
- To develop the capability in retrieving the information by applying different search techniques.
- To introduce the information repackaging and consolidation techniques.
- To develop familiarity with various bibliographic description standards

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Understand the concept of IR and its tools
2. Comprehend the concept of information analysis, repackaging and consolidation
3. Elaborate and use various indexing techniques.
4. Acquaint with various bibliographic description standards.
5. Appreciate the role of Data and its management in the current era.
6. Use different search strategies, techniques and evaluate IR system.

#### Course Contents :

##### Unit-1 Information Storage and Retrieval Systems

- Concept, components, IR tools
- Information Analysis, repackaging and consolidation: Concept, purpose
- Content Creation / Content Development
- Content Analysis: Meaning, Purpose. Application in LICs

## **Unit-2 Indexing**

- Concept and processes
- Indexing Languages, types, characteristics
- Vocabulary control – Tools of vocabulary control.
- Thesaurus – Structure and functions. Design / Construction of Thesaurus
- Subject Headings – LCSH and SLSH – Structure and Functions

## **Unit-3 Indexing Techniques**

- Pre and post-coordinate indexing
- Chain Indexing, PRECIS. Uniterm, Keyword and Citation Indexing
- Trends in Automatic Indexing
- Automated abstracting and translation

## **Unit-4 Bibliographic Description**

- Standards for bibliographic Description: ISBDs, MARC, CCF and MARC 21.
- METADATA: Concept, Use, purpose, functions and overview of protocols and features of different formats- Templates, Dublin Core etc, Use of Metadata.
- Big Data, Data Mining, Data Warehousing.
- DIGITAL OBJECT IDENTIFIER (DOI): Concept, Origin, application, principles for issuance of DOI. Application of DOI, DOI Foundation, procedure for registration.

## **Unit-5 Information Retrieval**

- Retrieval methods – manual and automated
- Search processes and strategies: Preparation of query, steps in search strategy.
- Strategies: Boolean Logic, Building Block search, Citation Pearl Growing, Successive Facet strategies, Pairwise Facet strategies, Word Proximity, Truncation.
- Search tools – search engines, meta-search engines, Subject directories, specialized data bases
- Criteria for evaluation of IR Systems

### **Practice:**

1. Hands on practice with Indexing techniques
2. Hands on experience of using List of Subject Headings and Thesaurus.

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**SAURASHTRA UNIVERSITY**  
**FACULTY OF ARTS**  
**Syllabus**

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INFORMATION TECHNOLOGY: APPLICATIONS  
Course Unique Code: 1901340202020500  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Core	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

**Objectives of the Course :**

- To generate awareness about ICT and its applications in libraries.
- To provide the students basic knowledge electronic information.
- To help them understand basics of digital libraries
- To introduce communication tools and techniques
- To understand the Internet and concerns about data security

**Course Outcomes :**

**After studying this course, students shall be able to:**

1. Understand the concept of ICT and its application in libraries.
2. Comprehend the role of electronic information
3. Know the role of digital libraries and process of digitization.
4. Assess various digital library initiatives and provide access to such initiatives.
5. Understand communication tools and techniques.
6. Know how Internet based communication works and provide data security

**Course Contents :**

**Unit-1 Information Technology**

- Concept, definition and components of IT:
- Computer and Communication technologies
- Overview of computer technology: Hardware and Software
- Client -- Server Technology: Concept, Use and types of Servers

## **Unit-2 Communication Technology**

- Telecommunications – Signals: Analog and Digital. Modem – types, use.
- Switching Systems: Concept, Purpose, Types -- Circuit, Message and PSS
- Gateways, Ethernet, Hub/Switches, Ports-USB, serial, Parallel
- Communication Media – Twisted Pair, Coaxial, Optic Fibres, Satellite Communication, VSAT, Microwave.
- Wireless Communication: Concept, Media, Wifi, Lifi, Networking, WAP / Wireless Internet, WLL, Cellular Communication.
- ISDN- Important concepts

## **Unit-3 Electronic Information**

- Electronic / Digital Information
- Digitization – Concept, Procedures and Problems
- Input devices – OCR, Scanners, Cameras
- Software and hardware used for digitization.
- Digital Library Initiatives, Institutional Repositories, Content Management System.
- Data Compression. Image Formats (JPEG, GIF / BMP).
- Audio Formats (MPEG, MP3, WAV). Image Editing.
- e-documents: Concept of e-books and e-journals. Trends in Production and availability of e-documents. Impact on Libraries and Information Centres and Users
- Data Communication Concepts – Parallel and Serial; Synchronous & Asynchronous; Simplex, Half Duplex and Full Duplex

## **Unit-4 Communication Tools and Techniques**

- Communication Tools and Techniques: An overview:
- Telex, fax, E-mail, Tele Text, Videotex, Tele Conferencing, Video Conferencing, Voice Mail. Hyper Text and Hyper Media, Bulletin Board Service
- Markup Languages – HTML, XML, DHTML, and SGML – Features.
- Protocols: Definition, Concept. Types – General - TCP / IP, OSI. Other Protocols: SMTP, Telnet, FTP, HTTP, Z39.50.

## **Unit-5 Internet Communication**

- Internet Communication: Internet as a communication tool. Facilities for communication. Features and Developments
- Internet Connectivity – Dial up, leased, ISDN, Digital Subscriber Lines (DSL). Bandwidth, Multiplexing.
- Data Security: Concept, need, purpose. Virus – Definition, effect. Security Methods, Firewall, Anti-virus software. SPAM

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES  
Course Unique Code: 1901340202020600  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Core	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

#### Objectives of the Course :

- To introduce modern management techniques and its applicability to libraries
- To provide basics of effective management of libraries and information centres.

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Understand the concept, history of management and its modern techniques
2. Elaborate styles, approaches, schools of thought, principles and functions of management
3. Manage various operations of Library and Information Centres
4. Manage, preserve and provide access to various print and non-print information sources
5. Comprehend the concept of decision making, organising and quality management.
6. Comprehend the concept of human resource management and financial management

#### Course Contents :

##### Unit-1 Management

- Management: Concepts, definition, nature and purpose
- Management: Schools of thought
- Management: Styles and approaches
- Functions of management and their relevance to libraries and information centres
- Planning: Concepts, need and purpose , principles of planning, planning process- steps and factors, Types of Plans, Management by Objective

## **Unit-2 The Library System**

- Systems approach; Library system & its sub systems.
- System analysis & design.
- Project Management PERT/CPM.
- Reengineering, SWOT and SWOC.
- DFD.

## **Unit-3 Decision Making, Organising and Quality Management**

- Decision making: Concept, problems, process, aids, Management Information Systems (MIS)
- Organising: Concept, Models of organisational structure.
- Delegation of authority- Authority, Responsibility and Accountability.
- Organisational Communication: Concept and its role on management
- Quality management: Quality concept, element and application to libraries and information centres. Quality management and standards- ISO-9001 Quality Audit
- Total Quality management: Definition, scope and purpose and application to Libraries and information centres

## **Unit-4 Human Resource Management**

- H R Planning, Personnel Policies, Staffing, Standards, Staffing patterns.
- Job Specification, Job Description, Job Analysis & Evaluation.
- Recruitment Procedures, Selection, Training and Development, Inter Personal Relationship
- Work relationships: Supervision, Control, Leadership, Group Dynamics and Performance Evaluation. Managerial Qualities.
- Motivation: Concept and Theories.
- Management of Change: Concept, Need for Change, Impact, Strategies, Organization Culture, Promoting Change

## **Unit-5 Financial Management and Collection Management**

- Resource Mobilisation
- Budgeting Methods: PPBS and Zero-based. Budgetary Control.
- Cost Effectiveness and Cost Benefit Analysis.
- Cost Accounting: Concept and Use.
- Outsourcing.
- Collection management: Problems and issues relating to selection, acquisition, maintenance and preservation of books, periodicals and other materials including digital materials.

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: ACADEMIC LIBRARY SYSTEM & SERVICES  
Course Unique Code: 1901340302020101  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Elective-1	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

#### Objectives of the Course :

- To understand the structure and development of the higher education in India
- To understand academic librarianship, its types, collection, HR and finance.
- To prepare specialised professional manpower for academic libraries

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend the structure and development of the higher education in India.
2. Assess the role of UGC in development of libraries in India.
3. Assess the role of library in higher education.
4. Understand academic librarianship, its types, collection, HR and finance
5. Professionally manage an academic library and provide access to its resources and services.

#### Course Contents :

##### Unit-1 University Education

- University Education in Modern India.
- Higher Education Committees & Commissions.
- UGC and Distance Education.
- Objectives and Characteristics of Higher Education.
- Role of Library in Higher Education.

## **Unit-2 Academic Librarianship**

- History & Future of Academic Librarianship.
- University and College Libraries in India.
- Development in pre & post Independence period.
- Role of UGC in development of academic libraries.
- User Education.
- Library Services.
- Library Committee.

## **Unit-3 Collection Development**

- Policy, Procedures and Issues relating to selection, acquisition & maintenance of books periodicals and other information sources.
- Collection Evaluation and Stock Verification.

## **Unit-4 Personnel Management**

- Nature, Size, Staff Formula, Qualification, Personnel Policies.
- Librarians Status & Responsibilities.

## **Unit-5 Financial Management**

- Financial Planning and Control
- Budgets and Budgeting Techniques; Types, Preparation and Analysis
- Resource Generation

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: INDUSTRIAL LIBRARY SYSTEM & SERVICES  
Course Unique Code: 1901340302020102  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Elective-1	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

#### Objectives of the Course :

- To understand the structure and development of Industries in India
- To understand Industrial library system & services
- To prepare specialised professional manpower for Industrial libraries.

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend the structure and development of industries in India.
2. Assess the role of library in industrial setup.
4. Understand Industrial librarianship, its types, collection, HR and finance
5. Professionally manage an industrial library and provide access to its resources and services.

#### Course Contents :

##### Unit-1 Industrial Information

- Definition, scope and use.
- Information Industry and Business

##### Unit- 2 Industrial Information Sources

- Identification and Organization
- Utilization and Limitation of Information Sources

##### Unit-3 Industrial Information System & Services

- Structure, functions, Services and products of different categories of Industrial Information Systems and Services – Local, National and International

#### **Unit-4 Information Transfer & Dissemination**

- Industry Users & Non-Users
- Information Needs of Users
- User studies
- Information Literacy Programme

#### **Unit-5 Management of Industrial Information Systems**

- Systems approach- Planning, Objectives
- Organizational Structure
- Functions & problems
- Human Resource Management
- Application of IT on Business & Industrial Information systems

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# SAURASHTRA UNIVERSITY

## FACULTY OF ARTS

### Syllabus

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: HEALTH SCIENCES LIBRARY SYSTEM & SERVICES  
Course Unique Code: 1901340302020103  
External Exam Time Duration: 2.5 Hours

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Elective-1	4	30	70	00	100

**[Structure of Semester-end Examination:** Total 5 Questions with internal options. Q 1 to 3 Descriptive [Essay, Analytical and Definitional type] Q 4 & 5: Short and One to two line answers] Total Marks: **70**. Time **2.5 Hours**.]

**[Structure for Internal Evaluation:** Assignment of 10 marks, Seminar of 10 marks and Test of 10 marks]

#### Objectives of the Course :

- To understand the structure and development Health Sciences in India
- To understand Health Sciences library system & services
- To prepare specialised professional manpower for Health Sciences libraries.

#### Course Outcomes :

**After studying this course, students shall be able to:**

1. Comprehend the structure and development of Health Sciences in India.
2. Assess the role of library in Health Sciences institutions setup.
4. Understand Health Sciences librarianship, its types, collection, HR and finance
5. Professionally manage a Health Sciences library, provide access to its resources and services.

#### Course Contents :

##### Unit-1 Health Sciences Information

- Definition, scope and use.
- Health Science Institutions and their development

##### Unit- 2 Health Sciences Information Sources

- Identification and Organization
- Utilization and Limitation of Information Sources

##### Unit-3 Health Sciences Information System & Services

- Structure, functions, Services and products of different categories of Health Sciences Information Systems and Services – Local, National and International

#### **Unit-4 Information Transfer & Dissemination**

- Health Sciences Institutions Users & Non-Users
- Information Needs of Users
- User studies
- Information Literacy Programme

#### **Unit-5 Management of Health Sciences Information Systems**

- Systems approach- Planning, Objectives
- Organizational Structure
- Functions & problems
- Human Resource Management
- Application of IT in Health Sciences Information systems

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**SAURASHTRA UNIVERSITY**  
**FACULTY OF ARTS**  
**Syllabus**

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: DISSERTATION  
Course Unique Code: 1901340402020101

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Elective-2	4	30	00	70	100

**[Structure of Semester-end Examination:** Dissertation evaluation and Viva Voce of 70 marks]

**[Structure for Internal Evaluation:** Dissertation evaluation of 30 marks by the guide]

**Objectives of the Course :**

- To provide the students basic knowledge of research in the field of LIS
- To help them chose an appropriate research problem for dissertation.
- To help them apply data collection, analysis and interpretation techniques.
- To develop familiarity with application of various statistical techniques.
- To guide the students with basics of research reporting.

**Course Outcomes :**

**After studying this course, students shall be able to:**

1. Understand practical application of research methods in the field if LIS
2. Know the use of data collection, analysis and interpretation techniques.
3. Carry out a useful research study and submit its report.

**Course Contents :**

The dissertation will be based on an approved research problem pertaining to Library and Information Science. Each student will work under the guidance of the teacher of the Department and will submit two copies of the report to the Head of the Department. The evaluation of the dissertation will be conducted by an external examiner jointly with an internal examiner and the Viva Voce will be conducted by an external examiner

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**SAURASHTRA UNIVERSITY**  
**FACULTY OF ARTS**  
**Syllabus**

Subject: LIBRARY & INFORMATION SCIENCE  
Course Name & No.: PROJECT WORK  
Course Unique Code: 1901340402020102

Name of the Program	Semester	Course Group	Credit	Internal Marks	External Marks	Practical/ Viva Marks	Total Marks
M.Lib.I.Sc	2	Elective-2	4	30	00	70	100

**[Structure of Semester-end Examination:** Project report evaluation & Viva Voce of 70 marks]

**[Structure for Internal Evaluation:** Project report evaluation of 30 marks by the guide]

**Objectives of the Course :**

- To provide the students basic knowledge of research in the field of LIS
- To help them chose an appropriate project.
- To help them apply data collection, analysis and interpretation techniques.
- To guide the students with basics of project reporting.

**Course Outcomes :**

**After studying this course, students shall be able to:**

1. Understand practical application of research methods in the field if LIS
2. Know the use of data collection, analysis and interpretation techniques.
3. Carry out a useful research project and submit its report.

**Course Contents :**

The project work will be based on an approved research problem pertaining to Library and Information Science. Each student will work under the guidance of the teacher of the Department and will submit two copies of the report to the Head of the Department. The evaluation of the Project Report will be conducted by an external examiner jointly with an internal examiner and the Viva Voce will be conducted by an external examiner.

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