

SHIVAJI UNIVERSITY, KOLHAPUR



Reaccredited By NAAC with 'A' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

Master of Library and Information Science

(Faculty: Interdisciplinary Studies)

SEMESTER I AND II

(Syllabus to be implemented from June, 2018 onwards)

Shivaji University, Kolhapur

Revised Syllabus

For

Master of Library and information Science

(Choice Based Credit System based on Semester Pattern)

1. PROGRAMME TITLE: Master of Library and Information Science

Under the Faculty of **Interdisciplinary Studies**

2. YEAR OF IMPLEMENTATION:-

Revised Syllabus will be implemented from June 2018 - onwards.

3. GENERAL INFORMATION

The Department of Library and Information Science started the Master of Library and Information Science course in 1986-87. The programme leading to the degree of Master of Library and Information Science is primarily intended to develop the professional abilities of students in Academic, Public, Special libraries and similar Library and Information Centres.

4. PROGRAMME OBJECTIVES:

1. To provide an understanding of the vital and pervasive role of information as an essential resource in all developmental activities.
2. To acquaint the students with the application of modern management techniques and ideas essential for Library and Information Science.
3. To provide a thorough insight in to all techniques of information handling with special emphasis on the application of information technology.
4. To train the students to develop their insight and skills in recent trends in collection, organization and transfer of information by using emerging technologies.
5. To provide necessary skills and ICT background for designing, implementing, operating and managing Libraries and Information Centres.

5. PROGRAMME OUTCOMES:

LIS Students:

1. Will be trained in Technological knowledge and professional skills.
2. Will be able to effectively administer and manage Libraries and Information Centers.
3. Will learn the skills of organizing information and recorded knowledge.
4. Will become competent for job opportunities in LIS and related field.

6. PROGRAMME SPECIFIC OUTCOMES:

LIS Students:

1. Can manage information resources and the information life-cycle through the processes of collection development, organization, preservation, curation, access, and dissemination in accordance with physical, virtual, and technical infrastructure and needs.
2. Can design and implement policies essential for creating and providing information services and resources guided by the values of patron privacy, equitable access, intellectual freedom, and ethical use of information.
3. Can perform and access research based practices through the application of information literacy, inquiry, and research methods including data discovery, analytics and qualitative measures.

7. NUMBER OF ADMISSIONS: Twenty (20)

8. DURATION

- The programme shall be a full time regular programme
- The duration of programme shall be of one year of two Semesters.

9. PATTERN:-

Pattern of Examination will be Semester with 80+20 (100 marks) with Choice Based Credit System

10. ATTENDANCE:

Minimum attendance for each semester is 75% of the total number of Theory, Tutorial, Practical, Seminar, and Group Discussion

periods.

11. FEE STRUCTURE: (as applicable to self-supporting course)

Fees will be applicable as per University Rules/ Norms

12. ELIGIBILITY FOR THE PROGRAMME:

Candidates seeking admission to the M. Lib. and I. Sc. programme must hold Bachelor of Library and Information Science Degree of this University or equivalent thereto of any other University.

13. ADMISSION PROCESS:

- The admissions will on the basis of merit of entrance examination and reservation policy of the Govt. of Maharashtra
- An application in the prescribed form along with necessary testimonials for admission to the B. Lib. and I. Sc. programme must be accompanied with prescribed fees.
- The last date of application for the admission for M. Lib. and I. Sc. programme shall be notified by the University in the newspapers and on the university Website.

14. REFUND OF MONEY:

- i. Library Deposit shall be refunded only at the end of the programme after making such deductions for loss of books etc. as may be required. A student shall withdraw his/her amount of deposit within six months after the declaration of results. If not withdrawn within the prescribed time, it may be forfeited.
- ii. No other fees are refundable.

15. MEDIUM OF INSTRUCTION:

Medium of Instruction and Examination shall be in English.

16. HOSTEL:

There are men and women Hostels on the University premises and as per the rules in this behalf, the students will be accommodated in these hostels. Students desirous of taking admission to the University Hostels are requested to fill in the hostel admission form and complete the necessary formalities along with form of admission to the programme. Mess is compulsory for Hostellers. Students are required to observe rules and regulations of hostel accommodation.

Last date of application for admission: In the month of May/ June every year

14. GENERAL:

Students of this University must submit their Transference Certificate (from the College/University last attended) before 14th August without fail.

1. No student will be allowed to appear for a Post-graduate Examination unless he/she has taken his/her Bachelor's Degree Certificate.
 2. Students from other Universities should apply for Eligibility Certificate on or before 31st August after their admission to this University.
 3. Seats are reserved for students belonging to Scheduled Castes, Scheduled Tribes etc. as per the Resolutions passed by the State Government from time-to-time.
 4. No application form for admission to an examination will be accepted unless all dues are cleared by the student.
- A candidate shall be admitted to the examination for M. Lib.and I. Sc. programme if :
 - i) He/ She has kept two semesters for the M. Lib.and I. Sc. programme satisfactorily and necessary attendance as per rules
 - ii) He/ She has satisfactorily completed the prescribed programme of practical work, Seminars, Tutorials and assignments.

- **SEMINAR, PROJECT REPORT and PRACTICALS.**

The candidates shall be allowed to appear for the final examination provided they fulfill the following conditions:

- a) He/she has kept two semesters satisfactorily and necessary attendance as per the rules.
- b) The Project report shall be on an approved topic pertaining to Library and Information Science. Each student shall work under the supervision and guidance of a teacher for his/her Project report.
- c) The Project report (4 copies) duly approved by the Guide must be submitted through the Head of the Department One week before the commencement of the final practical Examination, failing which the candidates will not be allowed to appear for the examination. In addition the student will have to submit a soft copy of the Project report in PDF.
- d) A certificate stating that the Project report is the outcome of students own work of research during the academic year shall be submitted with the Project report.
- e) The Project report shall be examined by one external examiner duly appointed as per rules of the University.
- f) The Viva-Voce based on Project report shall be conducted by the External Examiner and Internal examiner.
- g) The student has to prepare a synopsis on chosen topic and present before the departmental committee. Two presentations on Project report is compulsory i. e. One for Synopsis and One after the completion of Work but before final printing.
- h) The Department through the Head of the Department shall send necessary details of internal work of the students to the Examination section.
- i) The details of practical work of students dully certified by the teachers will be submitted to the Head of the Department at the end of each semester

- **Mechanism of Credit Systems:**

Credit is a kind of weightage given to the contact hours to teach the prescribed syllabus, which is in a modular form. Normally one credit is allotted to 15 contact hours. The paper wise instructional days with a norm of 4 contact hours per week per paper will be of 120 days. That is 60 days or 60 contact hours per paper shall be completed during each semester session. By converting these contact hours into credit at the rate of 15 contact hours for each subject, there will be 4 credits allotted to each paper.

- **The details of the Semester I and II Examinations shall be as under:**

Semester I ----- Theory = 500 Marks

Practicals = 300 Marks

Semester II ----- Theory = 500 Marks

Practicals = 300 Marks

- Total credits for B. Lib. and I. Sc. Programme

| Sr. no. | Paper | Total Paper | Credit per paper | Semester-I | Semester-II |
|---------|-----------|-------------|----------------------|------------|-------------|
| 01 | Theory | 5 | 4 | 20 | 20 |
| 02 | Practical | 3 | 4 | 12 | 12 |
| | | | Total Credits | 32 | 32 |

Total Credits: Semester- I (32) + Semester- II (32) = **64**

A candidate who fails and reappears for the Examination as Ex-Students shall be entitled to have the marks previously assigned to him/her by the Head of the Department of Library and Information Science for the record of practical work. These marks will be carried forward in respect with his/her subsequent performance of the examination. In case, however, the candidate joins the programme again as a regular student, He/she shall have to do the record of Practical work afresh.

- **Standard for passing the examination**

- 1) In order to pass in a theory paper, a candidate shall have to secure 40% marks in each theory paper and in order to pass in each head other than theory papers; the candidate has to obtain 40% marks in each head of passing.

- 2) A Candidate can claim exemption for each theory or practical paper, if he/she secures 40% marks in theory or practical paper.
- 3) The Candidate shall be declared to have passed in the examination in Pass Class, if he/she passes the examination with minimum 40% aggregate marks.
- 4) In order to secure a Second Class, a candidate shall have to secure at least 50% aggregate marks or more marks.
- 5) In order to secure a First Class, a candidate shall have to secure at least 60% aggregate marks or more marks.
- 6) In order to secure a First Class with distinction a candidate shall have to secure at least 70% aggregate or more marks.
- 7) The class will be awarded on the aggregate total marks of semester I and semester II.

If a candidate fails in the final result he/she will be held over to the consecutive examinations thereafter.

Conversion of Marks into grades: The marks obtained by a candidate in each paper or practical/ CIE (Out of 100 or any fraction like **80 +20** shall be converted into grades on the basis of the following table.

| Grades | Range of marks obtained out of 100 or in any fraction | |
|---------------|--|-------|
| 0 | From 00 | To 39 |
| 1 | 40 | 44 |
| 2 | 45 | 49 |
| 3 | 50 | 54 |
| 4 | 55 | 59 |
| 5 | 60 | 64 |
| 6 | 65 | 69 |
| 7 | 70 | 74 |
| 8 | 75 | 79 |
| 9 | 80 | 84 |
| 10 | 85 | 89 |
| 11 | 90 | 94 |
| 12 | 95 | 100 |

Grade and Grade Points:

The students' performance of programme will be evaluated by assigning a letter grade on a few point scales as given below. The grade and grade points and credits shall be calculated as under:

| Grades | Credit Points |
|---------------|----------------------|
| O | 10 to 12 |
| A+ | 8 to 9.99 |
| A | 6 to 7.99 |
| B+ | 4 to 5.99 |
| B | 2 to 3.99 |
| C+ | 1 to 1.99 |
| C | 0 to 0.99 |

The students shall be further graded on a scale ranging from 12 to 0. The grade and grade points as shown below will express the level of students.

| Overall Final Credits | Level of Students | |
|------------------------------|--------------------------|----------------|
| 10 to 12 | Higher Distinction Level | Extraordinary |
| 8 to 9.99 | Distinction Level | Excellent |
| 6 to 7.99 | First Class | Very Good |
| 4 to 5.99 | Higher Second Class | Good |
| 2 to 3.99 | Second Class | Satisfactory |
| 1 to 1.99 | Pass | Fair |
| 0 to 0.99 | Fail | Unsatisfactory |

Scheme for B Plus/ Improvement of Class-Revised Rules

Persons who hold a pass or Second Class at the M. Lib. and I. Sc. and who wish to improve their class to secure B + Class, shall be allowed to do so as per the provisions of the following rules:

1. The concession to re-appear will be available only to : a] The holders of the Master's degree of this university.
2. Persons holding, M. Lib. and I. Sc. degree of this University in the Pass Class or Second Class and desirous of re-appearing for the same examination for improvement of class shall be given three chances to do so within a period of three years from his/her first passing the said examination in the Pass Class or Second Class.
3. A candidate intending to re-appear at the M. Lib. and I. Sc. Examination under these rules shall be allowed to do so without keeping fresh terms.
4. A Candidate intending to re-appear for M. Lib. and I. Sc. examination of this university under these rules shall be governed by the rules and regulations relating to the courses and syllabi which may be prescribed by the university authorities. It is entirely the responsibility of the candidate to ascertain that the papers he/she chooses are a part of a syllabus in force and are actually taught for the said examination.
5. A candidate is required to get his/ her name registered as an external student by submitting the prescribed registration form along with the necessary Certificates and fees within the prescribed dates under this scheme.
6. The result of the candidate appearing for M. Lib. and I. Sc. Examination under than the class he/she possesses. The marks obtained by the candidate whose class is not improved will be made known to him/her on request and on the payment of prescribed fees. So also, the statement of marks for his/her examination will be issued on payment of prescribed fees.
7. The answer-books of the candidate appearing for this scheme can be verified and re-valued, as per University rules.
8. A candidate re-appearing for the M. Lib. and I. Sc. examination under these rules, and obtaining B+ Class shall not be eligible to appear again for the same examination in the same subjects or subject for securing a class higher than the B+.
9. A candidate passing any of the postgraduate examinations mentioned above under these rules shall not be eligible to receive any prizes, scholarships etc.

instituted by the University and he shall also not be entitled to a merit certificate from the University

10. If a candidate is unable to get a higher class under this scheme, his/ her previous performance in the corresponding examination shall hold good.
11. A Candidate who improves his/ her class under this scheme shall have to surrender his / her 'Pass Class Degree Certificate' to the Shivaji University. In the absence of this the Degree under the "Improvement of Class Scheme" will not be conferred on him/ her.

Note:

- 1) The Examination Reforms regarding matters pertaining to Examinations of the University shall be made applicable as per the policy of the University. Information regarding the same shall be notified as and when Examination Reforms are made effective.
- 2) The pattern of question papers will be as per the rules and regulations of the University. The following shall be the papers prescribed for the Examination

Note: Each theory course requires 60 hours for teaching. Teacher shall engaged 10 hours altogether for conducting tests, assignments, seminars/presentations, discussion/round table, tutorial, brainstorming session, case studies, and any other activities respective teacher feels to be conducted for continuous evaluation and internal examination.

❖ Common Question Paper Pattern: Theory Course (Sem. I and II)

Time: 3 Hours

Total Marks: 80

❖ Instructions: 1) All questions are compulsory.

2) All questions carry equal marks.

Q.1 – A) Multiple Choice Questions: [10 Marks]

- Solve five multiple choice questions.
- All multiple choice questions carry equal marks **i.e. 2 marks each.**

Q.1 – B) Answer the questions in two or three sentences [10 Marks]

- Attempt 5 questions.
- All questions carry equal marks **i.e. 2 marks each.**

Q.2 and Q.3): Descriptive Questions

- Solve any two descriptive questions out of four.
- All descriptive questions carry equal marks **i.e. 20 marks each.**

Q.4) Short Notes: [20 Marks]

- Write any four short notes out of Six.
- All short notes carry equal marks **i.e. 5 marks each.**

❖ Practical Course P1 : Question Paper Pattern: ICT Applications (Sem. - I)

Time: 3 Hours

Total Marks: 80

- All questions carry equal marks

Q.1) Create a Digital Library / IR by using any open source software Dspace or Greenstone [20 Marks]

Q.2) Internet Searching Techniques [20 Marks]

Q.3) Searching information through E-Resources, Network based services, Gateways, Portals, Online E-Learning platforms etc. [20 Marks]

Q. 4) Viva- Voce [20 Marks]

Evaluation of Internal Assessment: 20 Marks

- **Internal Practical Test: 20 Marks**

Note: Passing minimum shall be 40% out of 20 marks i.e. 8 Marks

Practical Course (P2): Question Paper Pattern: E-Publishing (Sem. - I)

Time: 3 Hours

Total Marks: 80

- All questions carry equal marks

Q.1) Design a web page using any open source platform [20 Marks]

Q.2) Create an informative blog using any open source blogging platform [20 Marks]

Q.3) Use of Google Applications /Tools [20 Marks]

OR

Evaluation of Website

Q. 4) Viva- Voce [20 Marks]

Evaluation of Internal Assessment: 20 Marks

- **Internal Practical Test: 20 Marks**

Note: Passing minimum shall be 40% out of 20 marks i.e. 8 Marks

❖ **Practical Course (P3): Question Paper Pattern:
Documentation Services: Abstracting and Indexing (Sem. - I)**

Time: 3 Hours

Total Marks: 80

Q.1) Prepare descriptive/indicative abstract for the given article.
[20 Marks]

Q.2) Design of IR Thesaurus on given topic (Use and Generation of BT, NT, RT, ST, SN, UF, SA etc.)
[20 Marks]

Q.3) Preparation of different types of Indexes
[20 Marks]

Q.4) Searching of online thesaurus
[20 Marks]

Evaluation of Internal Assessment: 20 Marks

- **Internal Practical Test: 20 Marks**

Note: Passing minimum shall be 40% out of 20 marks i.e. 8 Marks

❖ **Practical P4 Question Paper Pattern: E-Content Creation
(Sem.-II)**

Time: 3 Hours

Total Marks: 80

Q.1) Design a Library website using Open Source Content Management System.
[20 Marks]

Q.2) Use of Open Journal System (OJS)
[20 Marks]

Q.3) Use of Open Access Self Archives.
[20 Marks]

Q.4) Use of Social Networking sites in Library Services – Facebook, Twitter, WhatsApp etc. [20 Marks]

Evaluation of Internal Assessment: 20 Marks

- **Internal Practical Test: 20 Marks**

Note: Passing minimum shall be 40% out of 20 marks i.e. 8 Marks

❖ **Practical P5 Question Paper Pattern: Designing Database and Searching (Sem.-II)**

Time: 3 Hours

Total Marks: 80

Q.1) Design a databases using any Standard Library Software Package [20 Marks]

Q.2) Searching WebOPAC's [10 Marks]

Q.3) Scholarly Database Searching [10 Marks]

Q.4) Searching Internet/Use of Search Engines/ Use of Web 2.0 Tools.[20 Marks]

Q. 5) Viva- Voce [20 Marks]

Evaluation of Internal Assessment: 20 Marks

- **Internal Practical Test: 20 Marks**

Note: Passing minimum shall be 40% out of 20 marks i.e. 8 Marks

Practical P6: Project Report

- The project report consists of 100 marks.
- **Internal Assessment: Twenty (20) marks** for Seminar i. e. One Seminar presentation for Synopsis and other after the completion of Work but before final printing.
- **Sixty (60) marks** will be given on the basis of project report and twenty **(20) marks** based on Viva-voce by the external and internal examiner.

Master of Library and information Science

The following shall be the courses prescribed for examination

(Semester- I)

| Sr. No. | Title of the Course | Examination Marks | | | Credits | Teaching Hours per Week |
|--|--|-------------------|----------------|-------------|---------|-------------------------|
| | | Max. Marks | Internal Marks | Total Marks | | |
| • Compulsory (Theory) | | | | | | |
| C1 | Information Retrieval, Repackaging and Consolidation | 80 | 20 | 100 | 4 | 4 |
| C2 | Research Methodology | 80 | 20 | 100 | 4 | 4 |
| C3 | Information & Communication Technology Applications | 80 | 20 | 100 | 4 | 4 |
| C4 | Web Technologies | 80 | 20 | 100 | 4 | 4 |
| • Elective (Theory) Choose any one | | | | | | |
| E1 | E- Publishing | 80 | 20 | 100 | 4 | 4 |
| E2 | Scientometrics | 80 | 20 | 100 | 4 | 4 |
| • Practicals (Compulsory) | | | | | | |
| P1 | ICT Applications | 80 | 20 | 100 | 4 | 4 |
| P2 | E- Publishing | 80 | 20 | 100 | 4 | 4 |
| P3 | Documentation | 80 | 20 | 100 | 4 | 4 |

| | | | | | | |
|--|------------------------------------|--|----------------------|-----------|--|--|
| | Services: Abstracting and Indexing | | | | | |
| | | | Total Credits | 32 | | |

(Abbreviations Used: C= Compulsory, E= Elective and P = Practical)

Course (C1): Information Retrieval, Repackaging and Consolidation

Course Objectives/Outcome (CO)

- To become familiar with the standard methods used to organize and store collections of items.
- To become able to analyze and evaluate ISAR tools and systems.
- To know the different ways in which information can be repackaged.

Course Content (CC)

Unit 1: Information Storage and Retrieval System

- Concept, Characteristics, Objectives, Evaluation of Information Storage and Retrieval (ISAR) System.
- Information Retrieval Process
- Vocabulary Control Tools
- Indexing Models and Control Devices
- Thesaurus: Need, Structure and Construction

Unit 2: Database and Information Retrieval

- Man and Machine Retrieval Systems
- Database: Meaning, Definition, Types of Database, Steps in Preparation of Database, Structure of Database & Features

- Multimedia Information Retrieval
- Web based Information Retrieval

Unit 3: Information Consolidation and Repackaging

- Information Consolidation: Meaning, Definition, Objectives and Process
- Repackaging of Information: Meaning, Definition, Objectives and Various Ways for Repackaging of Information
- User Benefits

Unit 4: Information Systems & Bibliographical Control

- Basic Concept and Need.
- Regional, National and International Information Systems: MEDLARS, DEVSIS, NISSAT, NASSDOC, NISCAIR, DESIDOC etc.
- Role of UNESCO and IFLA for Bibliographical Control

Recommended Books:

1. Atchison, J. Gilchrist: Thesaurus Construction, a practical manual, 1972.
2. Austin D., Precise, A Manual of concept analysis and subject indexing: 2nd ed. 1984.
3. Chowdhary G.C. Introduction to Modern Information Retrieval, London. Facet Publishing, 2009.
4. Dhawan, K.S. Principles of Information Retrieval. New Delhi, Commonwealth Publication, 1997.
5. Ellis, D. New Horizons in Information Retrieval, London: Library Association, 1990.
6. Fosket, A.C. Subject Approaches to Information 5th Ed. London: Clive Bingley, 1996.
7. Ghosh, S.B. and Satpathi, J.N. Subject Indexes: Methods and Techniques.
8. Gopinath, M.A. Preparation of an Index to a Book: Case study Lib.Sci with a slant to Documentation, 1967, Paper E.

9. Kesarwani, S.K. Information Access to contributions from LIS feschrifts published from India. New Delhi, EssEss Publication, 2011.
10. Kochen, M. et.al., Principles of Information Retrieval, 1974.
11. Kumbhar, Rajendra. Thesaurus of Library and Information Science terms. New Delhi, EssEss Publication, 2004.
12. Lancaster, F.W. Indexing and abstracting theory and practice. London, facet Publication, 2009.
13. Lancaster, F.W. Information Retrieval System Characteristics, Testing and Evaluation, New York: John Wiley, 1968.
14. Lancaster, F.W. Vocabulary Control for Information Retrieval, New York: Information Resources Press, 1972.
15. Prashar, R.G. Index and indexing system, New Delhi, Medollian Press, 1990.
16. Sengupta, B. and others. Documentation and Information Retrieval, Calcutta, World Press, 1972.
17. Sutar D.B. A Compendium of Library and Information Science.Part-I.Varanasi, ABS Publications,2013.
18. Chatterjee ,Amitabha Elements of Information Organization and Dissemination

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Course (C2): Research Methodology

Course Objectives/Outcome (CO)

- To make students acquainted with research process.
- To introduce the students with various research methods.

Course Content (CC)

Unit 1: Basic concepts of Research

- Concept , Meaning , Need and Process of Research
- Types of Research : Pure , Applied and Action Research
- Spiral of Scientific Method
- LIS Research
- Literature Search
- Research Ethics

Unit 2: Research Design

- Research Design :Meaning , Definition and Steps in Research Design
- Synopsis- concept and essential Components
- Criteria for selection of research problem
- Identification and formulation of Problem
- Hypothesis: Meaning, Definitions, types and qualities of good hypotheses

Unit 3: Research Methods

- Historical Method.
- Descriptive Method
- Case Study Method
- Experimental Method
- Delphi Technique

Unit 4: Data Collection Tools & Techniques

- Types of data: Primary & Secondary
- Questionnaire
- Interview
- Schedule

- Observation
- Check lists
- Recent data collection Techniques

Recommended Books:

1. Kumar (PSG) (2004) Research Methods and Statistical Techniques, Delhi, B.R. Publishing.
2. Kothari, C . R. (1990), Research Methodology: Methods and Techniques 2 - Ed, New Delhi.
3. Allen, (T) (Harrel): New Methods in Social Science Research, 1978.
4. Kaul, Lokesh (1997). Methodology of Educational Research, New Delhi, Vikas Publishing House.
5. Kumar, Krishan (1992). Research Methods in Library & Information Science. Delhi Har- Anand Publications.
6. Good, W. J. and Hatt, P.K. (1986). Methods in Social Science Research. New Delhi, McGraw Hill,
7. Slater, M (1990). Research Methods in Library and Information Studies. London, L.A.
8. Powel, Ronald R.(1985). Basic Research methods for Librarians, New Jersey, albex, Greenwood.
9. Mohsin, S.M.(1984).Research Methods in Behavioral Science, New Delhi, Orient Logman.
10. Fwler, F.J.(1993). Survey Research Methods. New Delhi: Sage Pub.

11. Lihitkar, S. R. (2014). Edited workshop proceeding on *Research Methodology in Social Science*. Sai Publication: Nagpur

Course (C3): Information and Communication Technology Applications

Course Objectives/Outcome (CO)

- To be acquainted with the ICT technology.
- To train students about the Advanced ICT Applications.
- To develop acquaintance for effective implementation of ICT in libraries.

Course Content (CC)

Unit 1: Information and Communication Technology

- Concept, Meaning, Definitions, Scope, Need, Advantages and Use
- Information generation and communication channels : Formal and Informal
- Barriers of Information communications
- Basics of communication Technology: Transmission media, Switching systems ,Modes

Unit 2: Networking

- Network: Concept, Need, Advantages
- Network Media
- OSI model, ISDN, Wi-Fi
- Networking Techniques
- Switching Systems: Techniques and Types
- Networking Security: Authentication, Firewalls, Virus & Spyware
- Library Networks
- Web at National and International Levels

Unit 3: Internet

- Internet : Meaning, Definitions

- Type of connectivity, components
- Internet protocols
- Internet Security
- Internet Systems
- Search Engines

Unit 4: Development of Digital Library

- Digital Library : Concept , Meaning, Definition, Need & Characteristics
- Major components of Digital Library
- Digitization Process
- Search and Browser Interface
- Digital Library Architecture
- Technical infrastructure
- Digital Library Software: DSpace, E-print, Greenstone, Fedora etc.

Recommended Books:

1. Phadke, D. N. (2018). *Library & Information Technology*. Pune: Universal.
2. Shubham, B.A.(2001). *Issues for Libraries and information science in the internet age*.Englewood: Libraries Unlimited Inc.
3. Balasubramanian, P. (2012).*Web technologies in Library & Information Science*. New Delhi: Regal publications.
4. Westman, S.R. (2009).*Creating data based-backed library and web pages using open source tools*.Chicago: American Library Association.
5. Chowdhury, G.G. & Chowdhury, S. (2003). *Introduction to digital libraries*. London: Facet.
6. Lihitkar,S.R. (2017).*Information landscapes: A scenario*. New Delhi: Ess. Ess.
7. Kumar, P.S.G. (2004). *Information technology: Applications (Theory and Practice)*. Delhi: B.R Publishing.

Course (C4): Web Technologies

Course Objectives/Outcome (CO)

- To introduce the students with basic concepts of Web technology.
- To familiarize the students with the concepts of web page design.
- To acquaint students with the current trends in web technologies.

Course Content (CC)

Unit 1: Internet Basics/Web Technology

- World Wide Web: History and Evolution, Uniform Resource Locator (URL), Open URL, Web Servers, Network Protocols: TCP/IP, FTP, SSHD, SOAP, etc.
- Web Browsers- Netscape Navigator, Internet Explorer and Mozilla Firefox
- Search Engines: Google and Yahoo
- Security Issues

Unit 2: Web Page Design

- Web Designing and Scripting: Introduction to Mark Up languages: SGML, HTML, DHTML, XHTML and XML, Common HTML commands.
- Web Programming and Scripting languages: Client-side Scripting – VB Script, Java Script and PHP; Server-side Scripting- ASP and JSP; HTML, Open source Web design , Web hosting ,Evaluation of websites

Unit 3: Web 2.0/ Web 3.0 Concepts and Applications

- Web OPAC, Web 2.0 functions and features,

- Web 2.0 Tools and their application in Libraries: RSS Feed, Blogs/Weblogs, Tags, Folksonomy,
- Mashups, Podcasts, Instant Messaging, Flickr, Wikis and Social Networking
- Library 2.0, Web 3.0
- Semantic Web

Unit 4: Current Trends

- Cloud computing : Concept, types
- Vender/Players in cloud computing : google, amazon, microsoft, rackspace etc
- Application of Cloud computing in Libraries
- M-computing : Concept and Applications

Recommended Books:

1. Hahn, Harley: The Internet Complete Reference. 2nd Ed. New Delhi: Tata Mcgraw Hill, 2002.
2. Young, Margaret, Levine and others: The complete Reference Internet, Millennium Ed. New Delhi: McGraw-Hill, 1999.
3. Singh, J.N. and others: Internet and Information Technology. Bangalore: Subhas Stores, 2003.
4. Williamson, Heather: The Complete Reference XML. New Delhi: Tata McGraw-Hill, 2004.
5. Manohar, V. & Lihitkar, Shalini (2017). *Web 2.0 in Libraries*. Delhi: Studera Press.

Course (E1): E-Publishing

Course Objectives/Outcome (CO)

- To make the students acquainted with the basic concepts E- Publishing.
- To make the students acquainted with the recent trends in E-Publishing.
- To familiarize the students with the current issues in E-Publishing.
- To introduce the students with the technologies used for E-Publishing.

Course Content (CC)

Unit 1: Basics of E-Publishing

- Concept, Definitions , Scope, & Evolution of E-Publishing
- Advantages & Problems of E-Publishing
- Kinds of E-Publishing Products/Models
- Business Models of E- Publishing
- Impact of Electronic Publishing on Library Practices

Unit 2: Current Issues in E-Publishing

- Issues like Commissioning and Peer Review, Editing and Proofreading, Design and Typesetting, Printing, Sales and Marketing, Warehousing and Distribution etc.
- Social, Economic, & Legal Issues in Electronic Publishing
- Access ,Use & Usability Issues, & Pricing Issues

Unit 3: Open Access Publishing

- Open Access Publishing: Concept, Models, Advantages & Disadvantages
- Open Archives Initiative (OAI)
- Predatory Open Access Publishing: Concept, Meaning & Growth
- Global & Indian Initiatives to Control the Menace of Predatory Open Access Publishers

Unit 4: Technologies for E-Publishing

- Software & Hardware Requirements
- Markup Languages: SGML, HTML and XML.
- Digital Content Types, File Formats, Encoding Systems : ASCII, UNICODE and ISCII
- E-Publishing Standards.
- Open Journal System.

Recommended Books/Articles

1. Kist, J. (1989). *Electronic publishing : Looking for a blue print*.NewDelhi: Sterling
2. Standera, O. (1987). *The electronic era of publishing: An overview of concepts, technology & methods*.New York: Elsevier Science.
3. Karen, S. W. , Marilyn, B, & Stone, T. A. (2003). *Electronic publishing: The definitive guide*. UK: Hard Shell Word Factory.
4. Schuster, C. (2011). *E-publishing for writers: Trends and opportunities*/Fall 2011 (Kindle Edition). UK: Books to Go Now.
5. Kadam, S. D. & Veer, D. K. (2014). *Digital libraries, E-resources and e-publishing* (Set of 2 Volumes). New Delhi: EssEss.
6. Henke, H. (2001). *Electronic books and e publishing: A practical guide for authors*. London: Springer-Verlag.
7. Patwardhan, B. & Others (2018). A critical analysis of the UGC approved list of journals. *Current Science*, 114(6), 1299-1303.
8. Seethapathy, G.S., Kumar, J.U.S., & Hareesha, A.S. (2016). India's scientific publication in predatory journals: need for regulating quality of Indian science and education. *Current Science*, 111(11), 1759-1764.
9. Patil, S. B. (2016). Predatory Open-Access Journals in India: A Study. *Pearl: A Journal of Library and Information Science*, 10(2), 94-97.

10. Beall, J. (2013). Predatory publishing is just one of the consequences of gold open access. *Learned Publishing*, 26(2), 79–83. doi: <http://dx.doi.org/10.1087/20130203>
11. <https://publicationethics.org/>

Course (E2): Scientometrics

Course Objectives/Outcome (CO)

- To impart in depth knowledge on scientometrics.
- To inculcate skills in learners that would enable them to collect and analyses scientometrics data.
- To train the students for measuring Research out put.

Course Content (CC)

Unit I: Introduction to Metrics Studies

- Librametrics: Concept definitions, need, purpose, use
- Bibliometrics : Concept definitions, need, purpose, use
- Informatics : Concept definitions, need, purpose, use
- Web metrics : Concept definitions, need, purpose, use
- Scientometrics : Concept definitions, need, purpose, use
- Altmertic : Concept definitions, need, purpose, use

Unit II: Laws related to Metrics

- Classical Laws of Bibliometrics
- Lotkas Law : Concept , formula & Application
- Ziff Law : Concept ,formula & Application

- Bradfords Law: Concept ,formula& Application
- Application in Science Policies & Research Study
- National Mapping and Role of Scientometries in Science Policy

Unit III: Citation Analysis and Databases

- Citation Analysis: Concept, Definition, need, types, application.
- Web of Science
- Scopus, emerald, Springer
- Google scholars
- Medline
- Humanity Index
- Social – Science Citation
- Science Citation Index

Unit IV: Impact Factor, Research Visibility and Software for metric studies

- Impact Factor: Meaning, Definitions, types of Impact factor, tools &Techniques for calculation.
- Research Visibility: Meaning, Definitions, and tools: academic and Social networking sites, ORCID,Research Gate, Mendley, Vidwan Expert database
- Software for metrics studies: Hiscite, Vosviewer, Publish or Perish, Soscibot etc.
- Altmetrics.com, Impact story, Plum Analytics, PLOS Article Level Metrics.
- Ranking and case studies with examples

Recommended Books:

1. Egghe, L. and Rousseau, R.(2001). *Elementary statistics for effective Library and Information services management*. London: Aslib
2. Garfield, E. (1979). *Citation Indexing: Its theory and applications in Science, technology & humanities*. New York: John Wiley.
3. Meadows, A.J.(1974). *Communication in Science*. London: Butterworths.
4. Neuendorf, K. (2002). *The content analysis guidebook*. London: Sage.
5. Nicholas D. and Ritchi, M. (1979). *Literature & bibliometrics*. London: Clive Bingley.
6. Ravichandra Rao, I.K. (1985). *Quantitative methods for Library and Information Science*. New Delhi: Wiley Eastern, 1985.
7. Thelwall, M. (2009). *Introduction to webometrics: Quantitative web research for the social Sciences*. Morgan and Claypool Publishers.

Practical Course (P1): ICT Applications

Course Objectives/Outcome (CO)

- To provide practical hands on training on digital library softwares.
- To develop the internet searching skills & techniques among the students.

Course Content:

Unit- 1: Digital Library Creation by using any Open Source Software

- Digital Library Softwares (Dspace or Greenstone)

Unit- 2: Internet Searching tools and Techniques

- Basic, Advanced Search Techniques, Google Searching Tools

- Information Searching – E-Books, E-Reference Sources, OCLC Database, WebOPAC, DOAJ, DOAR, Library Networks, ETD, LIS Gateways, Information Systems, Digital Libraries, NDL, N-LIST, SWAYAM , SAKSHAT,E-PG Pathashala etc.

Practical Course (P2): E- publishing

Course Objectives/Outcome (CO)

- To provide practical hands on training on webpage designing.
- To train the students in creation of blogs & using various Google applications/tools.

Course Content (CC)

- Website evaluation
- Webpage designing of Library
- Personal Webpage design
- Creation of Blog for Library/ Personal
- Google Applications /Tools for Libraries

Practical Course (P3): Documentation Services: Abstracting and Indexing

Course Objectives/Outcome (CO)

- To train the students in designing & developing IR Thesaurus, different types of abstracts and indexes.

Course Content:

- Design and Development of IR Thesaurus.
- Preparation of Indicative Abstracts

- Preparation of Descriptive Abstracts
- Preparation of Author Index
- Preparation of Subject Index
- Preparation of Title Index
- Online Thesaurus Search and generating of Terms

Master of Library and information Science Semester- II

The following shall be the courses prescribed for examination

| Sr. No. | Title of the Paper | Examination Marks | | | Credits | Teaching Hours per Week |
|--|--|-------------------|----------------|-------------|---------|-------------------------|
| | | Max. Marks | Internal Marks | Total Marks | | |
| • Compulsory (Theory) | | | | | | |
| C5 | Digital Information Management | 80 | 20 | 100 | 4 | 4 |
| C6 | Statistical Techniques and Report Writing | 80 | 20 | 100 | 4 | 4 |
| C7 | Marketing of Library and Information Science | 80 | 20 | 100 | 4 | 4 |
| • Elective (Theory) Choose any one | | | | | | |

| | | | | | | |
|---|---|----|----|----------------------|-----------|---|
| E4 | Electronic Information Sources & Services | 80 | 20 | 100 | 4 | 4 |
| E5 | Industrial Information System | 80 | 20 | 100 | 4 | 4 |
| • Open elective (Theory) Student from any department can choose this course. | | | | | | |
| OE | Technical Writing | 80 | 20 | 100 | 4 | 4 |
| • Practicals (Compulsory) | | | | | | |
| P4 | E-content Creation | 80 | 20 | 100 | 4 | 4 |
| P5 | Designing Database & Searching | 80 | 20 | 100 | 4 | 4 |
| P6 | Project Work | 80 | 20 | 100 | 4 | 4 |
| | | | | Total Credits | 32 | |

(Abbreviations Used: C= Compulsory, E= Elective and P = Practical, OE = Open Elective)

Course (C5): Digital Information Management

Course Objectives/Outcome (CO)

- To introduce basic concepts and characteristics of digital libraries to the students.
- To familiarize the students with standards and protocols and their need and importance in digital libraries.
- To impart knowledge on need, relevance, problems and challenges of digital preservation to students.

Course Content (CC)

Unit 1: Digitization

- Definition, Needs of Digitization, Selection of Material for Digitization.
- Selection of Material for Digitization, Steps in the Process of Digitization

- Optical Character Recognition (OCR), Compression Protocols, File Formats and Media Types
- Equipment for digitization and Implementation, Scanning Software, Digitization of Audio and Video, Planning Digitization
- Digital Preservation- Meaning, Needs, Problems and Challenges, Principles of Preservation, Factors of Digital Preservation, Digital Preservation Strategies, Digital Preservation Metadata, Storage Management for Digital Preservation.
- Digital Preservation Initiatives in India.

Unit 2: Digital Library Protocols and Standards

- Protocols : Definition and Importance
- Communication Protocols: Transmission Control Protocol / Internet Protocol (TCP/IP), Hyper Text Transfer Protocol (http), File Transfer Protocol (FTP).
- Bibliographic Standards : Machine Readable Catalogue (MARC), Dublin Core, BIB-1, Text Encoding Initiative (TEI), Electronic Archive description (EAD), Metadata Encoding and Transmission Standard (METS), Metadata Object Description Schema (MODS).
- Record Structure, ISO 2709 / Z39.2
- Encoding Standards: Unicode and ASCII
- Information Retrieval Standards : Z39.50 or ISO 23950, Search/Retrieve Web Service (SRW) and Search/Retrieve via URL (SRU), REST, SOAP, OAI-PMH, Open URL
- Formats and Media Types :Formats and Encoding used for Text, Page Image Format
- Preservation Standards : PREMIS and Open Archival Information System (OAIS)

Unit 3: Semantic Digital Library Services

- Semantic Digital Library Services, Architecture of Semantic Digital Libraries, Semantic Library Projects-JeromeDL Project, BRICKS Digital Library Infrastructure, MarcOnt Initiative, SIMILE Project
- Open Access and Digital Library - Open Access Journals, Institutional Repositories , Open Courseware, Metadata Harvesting Services

Unit 4: Digital Rights Management (DRM)

- Digital Rights Management (DRM) - Meaning, Functional Architecture, Information Architecture, DRM and Legal Aspects
- Need for Access Management and Security, User Authentication and Authorization, Technologies for Access Control and Access Tracking, Authentication of Digital Content
- Technology for Secured Digital Communication- Cryptography and Encryption, Digital Certificates

Recommended Books/Articles:

1. Arms, William Y.(2000). Digital Libraries.: MIT Press.
2. Lynch, Clifford (1999). Canonicalization: A Fundamental Tool to Facilitate Preservation and Management of Digital Information. D-Lib Magazine, 5 (9).
3. Schwartz, C. Digital libraries: An overview. Journal of Academic Librarianship, 26(6), 385-396, 2000.
4. Dillon, A. (2002) Technologies of information: HC and the digital library. In J.M. Carroll,ed. Human-Computer interaction in the New Millennium. Boston: ACM Press.

5. Open Archives Initiative Protocol for Metadata Harvesting. Available:
6. <http://www.openarchives.org/pmh/>. (Accessed 10th June 2018).
7. Gopal, Krishan (2000) Digital Libraries in Electronic Information Era: Authorspress.
8. Hughes, Lorna.M (2004) Digitizing collections: strategic issues for the information manager: Facet publishing.
9. Witten, Ian Hetal (2010). How to build a digital library: Morgan Kaufmann publisher.
10. Jean-Marc Boucqueau (2006-2012). Digital Rights Management. IEEE Emerging Technology portal: <http://www.ieee.org/about/technologies/emerging/digitalrights.pdf>
11. UNESCO's Guidelines for the Preservation of Digital Heritage (2003).

Course (C6): Statistical Techniques and Report Writing

Course Objectives/Outcome (CO)

- To develop research skills in students and enable them to carry out research in Library & Information Science.
- To understand on both qualitative & quantitative techniques for data analysis and consolidation.
- To familiarize the art and style of writing a research report.

Course Contents (CC)

Unit 1: Data Processing and Presentation

- Sampling Techniques: Concept, Purpose, Principles and Key terms in sampling terms
- Types of Sampling
- Processing of Data: Editing, Coding and Classification
- Data Presentation Techniques: Tabulation and Graphical Presentation.

Unit 2: Statistics and its Applications

- Types of Scale
- Descriptive statistics: Measures of Central Tendency and Dispersion
- Inferential statistics: Statistical estimation & Testing of Hypothesis
- Chi Square Test, T- test, Z- test etc.

Unit 3: Statistical Packages

- SPSS
- MS- Excel
- Web-based Statistical Analysis Tools
- Online Reference Mangement Tools

Unit 4: Research Reporting

- Purpose, Structure, Style, Contents
- Guidelines for Research Reporting
- Style Manuals: APA ,MLA and Chicago
- Plagiarism
- Current trends in LIS research.

Recommended Books:

1. Ahuj, A.: Research Methods, Rawat Publication: Jaypur and New Delhi, 2001.
2. Anglo American Cataloguing Rules (2002). 2nd Ed. Rev. available online at <http://www.oclc.org/oclc/bib/toc.htm>
3. Anglo-American Cataloguing Rules. (Latest Edition). London: Library Association.
4. Carpenter Ray, & Vasu Ellen Story : Statistical Methods for Librarians, Chicago, and American Library Association, 1978

5. Das S.K. : Introduction to research Bombay A Mukherjee & Co. Pvt. Ltd. 1986.
6. Goods W. J. &Hatt P.K. : Methods in Social research New York, McGraw Hill Co., 1952
7. Gupta C.B. &Ratan: Statistical calculations Delhi Vikas pub House, 1973.
8. Gupta C.B. Introduction to Statistical methods Delhi chand 1974.
9. Kothari, C. R. Research Methodology: Methods & Techniques, New Age International: New Delhi, 2004
10. Kumbhar, R. M.: Library and Information Science Research : Methods and Techniques, Universal Prakashan: Pune, 2014
11. Ravichandrao I.K. : Quantitative Methods for library and information science Calcutta Wiley Eastern, 1985
12. Sadhu A.N. &Amargitsingh: Research methodology in social sciences Bombay Homalayan 1980
13. Sardana J. L. &Sehgal R. L. : Statistical methods for Libraries, New Delhi ESS publication 1981
14. Savanur, S.K.(2008). Research methodology for information sciences.Pune:Universal.
15. Sehgal R.L.: Applied statistics for Library science research vol.1&2 New Delhi, ESS publication, 1998.

Course (C7): Marketing of Library and Information Products & Services

Course Objectives/Outcome (CO)

- To introduce the students with the basic concepts of marketing.
- To make the students acquainted with the process of planning of information products and services.

Course Contents (CC)

Unit 1: Marketing of Information Products and Services

- Concept, Meaning, Definitions , Need, functions, Elements, Problems& Benefits of Marketing
- Information as a Resource and commodity
- Need and purpose of Marketing of library products and services
- Knowing the users, Activities and tools of marketing
- Concept of marketing in non-profit organizations.

Unit 2: Planning of Information Products and Services

- Planning and development of information products and services.
- Marketing Mix: Seven P's, Kotler's Four C's, Marketing Plan & Strategy.
- Branding and Advertising.

Unit 3: Information Marketing Segmentations

- Methods of Segmentation: Geographical segmentation, Psychographic segmentation, Behavioural segmentation, Demographic Segmentations, Marketing nitch.
- Barriers in Information Marketing; Access barriers, linguistic barriers, legal barriers, economic barriers and cultural barriers;
- Pricing – Pricing of information products and services.

Unit 4: Emergence of Information Society and Knowledge Society

- Emergence of Information Society and Knowledge Society

- Conceptualization of Information as a Resource: as a commodity and Information economics,
- Economics of Information; Growth of Information Industry and Implications on Library and Information Services and Products.
- Transborder data flow: agencies in TBDF, types of TBDF, and barriers in BDF.

Recommended Books:

1. Cawkell, A.E., Ed. (1987). Evolution of an Information society. London: ASLIB.
2. Cronin, B.(1981). Marketing of Library and Information services. London: ASLIB.
3. Eileen, E. D.S. (2002). Marketing concepts for Libraries and Information services. 2nd Ed.
4. London: Facet Publishing.
5. Jain, A.K and others Ed. (1995). Marketing of Information products and services. Ahmedabad:IIM.
6. Kotler, P. (1975). Marketing for non-profit organization. Prentice-Hall.
7. Saez, E.E. (1993). Marketing concepts for Libraries and Information services.
8. George Yi, Zhixian. (2017). Marketing Services and Resources in Information Organizations / 1st ed., Chandos Publishing.
9. Helmic, Samantha C. (2015). Mobile Social Marketing in Libraries. Rowman & Littlefield Publishers.
10. Rea, Gavin. "Promoting the Library Services". In Chris Pinder and Maxine Melling (Eds): Providing Customer- Oriented Services in Academic Libraries. London: Library Association Publishing, 1996.

Course (E4): Electronic Information Sources & Services

Course Objectives/Outcome (CO)

- To familiarize the students with electronic Information Sources and Services.
- To make the students acquainted with the open access movement and electronic publishing.

Course Contents (CC)

Unit 1: Electronic Information Sources

- Meaning, Definition, Characteristics and Use
- Growth and development of Electronic Information Sources
- Types and Examples of Electronic Information Sources.
- Evaluation criteria for Electronic Information Sources
- Citation Methods of electronic information sources
- Emerging Trends and Technologies in Electronic Information Sources

Unit 2: Electronic Information Services

- Meaning, Definition, Need and Scope
- Types of electronic information services
- Emerging Trends and Technologies useful for Electronic Information Services

Unit 3: Open Access Information

- History of the Open Access Movement
- Meaning, Need, Purpose and Benefits of Open Access
- Types and Examples of Open Access
- Copyright and Open Access

- Future of Open Access

Unit 4: Electronic Publishing

- Concept and meaning
- Introduction and overview to E-publishing, Access form print to electronic
- Recent trends in electronic publishing
- Impact of electronic publishing on library practices

Recommended Books:

1. Chowdhury, G.G. and Chowdhury, Sudatta (2000). *Searching CD-ROM and online Information sources*. London: Library Association.
2. Cooper, M. D. (1996). *Design of Library automation systems: File structures, data structures and tools*. New York: John Wiley.
3. Dickson, G.W. and Desanctis, G. *Information technology and the future enterprise: New models for managers*. New Jersey: Prentice Hall.
4. Ferris, Jeffrey A. (2000). *Windows 2000: Development and desktop management*. Indiana: New Riders.
5. Gallimore, A. (1997). *Developing an IT strategy for your Library*. London: Library Association.
6. Sharma, Jitendra Kumar (2003). *Print Media and Electronic Media: Implications for the future*. Delhi, Authorspress.
7. <http://www.infolibarian.com>
8. <http://www.Libraryspot.com>
9. <http://www.refdesk.com>

Course (E5): Industrial Information System

Course Objectives/Outcome (CO)

- To be acquainted with the Industrial Information System.

- To train students about the Industrial Information Sources, products and services.
- To develop acquaintance with the national and International level industrial Institutions.

Course Contents (CC)

Unit -1: Industrial Information

- Nature, Characteristics, Role, generation and utilization
- Components of Industrial information System: resources, Centers, Consultants, Suppliers, Financial Organisations, Industrial Promoters.
- Users of Industrial Information: Categories, Role, Functions, and needs
- Industrial Libraries and Information Centres: Characteristics and Roles

Unit- 2:Industrial Information Sources, products and services

- Information Sources, Management of Industrial Libraries and Information Centres Information Resource Development
- Information Sources: Internal and External Sources Directories, CAS/SDI; Technical enquiry service; Digests;
- Information Sources specific to Industries: Government Document, Technical Report, Market Research Reports; Trade Literature; technical Notes; Company Profile; Intellectual Property Rights (Copy-right, Patent, Design & trade marks); Literature, , Standards, Patents, Management Aspects
- Information Services: Computerized Services; Databases; CD-ROMs and Networks, Internet, E-commerce-concepts and scope.

Unit-3: Information Systems: National & International

- CSIR and its National Laboratories, NISCAIR, SENDOC, NIDCS, IIFT, ITPO, CII, FICCI, etc.

- Role of International Organizations in Industrial Information: UNIDO, UNCTAD, UNDP, OECD etc.
- Standards related to Industries: ISO etc.

Unit-4: Organizing Industrial information for end-user support:

- Database system: Industrial Management system; Industrial planning System.
- Text Management System: Text retrieval system: Office system
- Management Support System: Decision support systems; Information Centres.

Recommended Books:

1. Blakewell, K.Y. Industrial Libraries throughout the World. Oxford, Pergamon Press, 1969.
2. Anthony, L.J. Handbook of Special Librarianship and Information Work 5th ed. London, ASLIB, 1982.
3. Burkett, Jack. Industrial and Related Information Services in United Kingdom 3rd. London: LA.1972.
4. DRTC Annual Seminar-17 Industrial Information Systems and Services, Bangalore, Documentation Research and Training Centre, 1979.
5. Gopinath, M.A. and Seetarama, S. Industrial Information Systems and Services, DRTC, AnnualSeminar (17), 1979, Bangalore: DRTC, 1979.
6. Houghton, Berhard, Technical Information services. 2nd ed. London, Clive Bingley, 1972.
7. Jackson, E.B. and Jackson, R.L. Industrial Information Systems: A Manual for Higher Management and their information officers/ Librarian Associates.
8. Kumar, P.S.G. Business/Industrial Librarianship, New Delhi, B.R.Publishing Corporation, 2008.

9. Library Association Industrial group: Industrial and commercial Library, An Introductory guide. London, Library Association, 1986.
10. Lihitkar, Shalini, R. Libraries and Information centres in Maharashtra. Pimplapure Publication. Nagpur, 2012.
11. Neelameghan, A: Information for small enterprises. Bangalore, Sarda Ranganathan Endowment for Library Science, 1994.
12. Sasikala, C. Industrial Library System, New Delhi, Reliance Publishing House, 1994.
13. Seetharama. S: Planning of Library and Information Centres, Calcutta, IASLIC, 1990.
14. Seetharama. S: Dynamics of Planning and Marketing of Modern Libraries and Information Centres in an Information Technology based environment, Calcutta, IASLIC, 2015.
15. Thakur, D.S. Scientific and Technical Libraries. New Delhi, EssEss Publication, 2006.
16. Sutar, D.B. Granthalaya Aani Mahitishashtra. Ed. 2. Kolhapur, Sneha Sutar, 2013.

Course (OE): Technical Writing

Course Objectives/Outcome (CO)

- To develop the technical writing skills & competencies among the students.

Course Content (CC)

Unit 1: Technical Writing

- Meaning, Concept and Definitions

- Characteristics; Language as a Medium for Communication of thought,
- Readability and text

Unit 2: Searching of Resources

- Traditional Vs Modern Resources
- Access to E- Resources: E-books, E- Journals, E- databases
- Open Access Resources: IR, Digital Libraries, Courseware (online), Open Directories

Unit 3: Citation Tools & Style Manuals

- Style Manuals: APA, MLA, Chicago
- Online Reference Management Tools: Mendely, Zotero, Refwork, endnote etc
- Plagiarism: Concept, Definition, Types & Issues
- Antiplagiarism Software: Commercial & Open Source Software
- Access Policy
- Fair Use

Unit 4: Products of Technical Writings

- Preparation of Articles

- Technical reports
- Review articles
- Digests
- Brief Report
- Summary
- State- of –the Art Report
- Writing Research Proposals
- Writing Reports

Recommended Books:

1. Neelameghan A 1975 – Presentation of Ideas in Technical Writing ed. 1, Delhi, Vikas Pub. House
2. Billie A Williams (2007). Characters in Search of an Author, New York: Filbert Publishing
3. Carrie Hannigan, Carrie Wells, Tanya Peterson (2008). Technical Writing: A Resource for Technical Writers at All Levels
4. Henry Miller, Thomas H Moore (1964). Henry Miller on Writing, New Direction Publishing Corporation, London.
5. Thomas Smith, Dominic Thompson (2005). APA/MLA Guidelines for Students
Laminate Reference Chart

Practical Course (P4): E-Content Creation

Course Objectives/Outcome (CO)

- To provide hands on experience with library website designing using open source content management systems.
- To familiarize the students with Open Journal System (OJS).
- To explore the potentials of social networking sites in offering value added library & information services to the users.

Course Content (CC)

- Library Website Designing using Open Source Content Management System.
- Open Access Self Archives.
- Open Journal System (OJS).
- Use of Social Networking sites in Library Services – Facebook, Twitter, WhatsApp etc.

Practical Course (P5): Designing Database & Searching

Course Objectives/Outcome (CO)

- To provide hands on practical training in designing databases.
- To train the students in searching the different scholarly databases.
- To train the students about effective use of search engines.

Course Contents (CC)

Unit 1:

- Creation & Maintenance of Databases using Library Software Package.

U nit 2:

- Database Searching: WorldCat, WebOPACs, Library of Congress (LC) Online Catalog, British Library Catalogues etc.

Unit 3:

- Searching the Different Scholarly Databases like Scopus, Web of Science, LISTA, MathSciNET, PubMed, J - Gate etc.

Unit 4:

- Use of Search Engines: Google, Google Scholar etc.
- Internet Searching –Web 2.0 tools

Practical Course (P6): Project Report

- The Project report shall be on an approved topic pertaining to Library and Information Science. Each student shall work under the supervision and guidance of a teacher for his/her Project report.
- The Project report (4 copies) duly approved by the Guide must be submitted through the Head of the Deptt. One week before the commencement of the final practical Examination, failing which the candidates will not be allowed to appear for the examination.
- The student has to prepare a synopsis on chosen topic and present before the departmental committee. Two presentations on Project report is compulsory i. e. One for Synopsis and One after the completion of Work but before final printing.
- The Department through the Head of the Deptt. shall send necessary details of internal work of the students to the Examination section.