



## **UNIVERSITY OF CALICUT**

**Board of Studies in Library and Information Science  
FACULTY OF HUMANITIES**

Scheme and Syllabus of

# **Master of Library and Information Science (M.Lib.I.Sc)**

(Choice Based Credit Semester System with Learning  
Outcomes-Based Curriculum Framework effective from 2022  
admission onwards)

**For Department of Library and Information Science,  
University of Calicut (From 2022 Admission)**

# Master of Library and Information Science (M.Lib.I.Sc.)

(Under the Calicut University PG Regulations for the Choice-based Credit Semester System (CCSS)-2022 in the University Teaching Departments; Ref: U.O. No.8481/2022/Admn dated 11.04.2022)

## Regulations and Programme Structure

The syllabi and curriculum of Master of Library and Information Science have been revised and restructured with effect from 2022 admissions.

## Title of the Programme

Master of Library and Information Science (M.Lib.I.Sc)

## Duration of the Programme

Two years with four semesters. Semester means a term consisting of minimum 90 working days, inclusive of examination, distributed over a minimum of 18 academic weeks. Academic week is a unit of 5 working days in which distribution of work is organized from day 1 to 5, with 6 contact hours of 1 hour duration in each day. A sequence of 18 such academic week constitutes a semester.

## Eligibility and Admission

The eligibility criteria for admission to M.Lib.I.Sc. programme (CCSS) offered by the Department of Library and Information Science, University of Calicut for 2022 batch onwards is any UG degree of this university or an equivalent degree of recognised universities with at least 50 percent of aggregate marks or equivalent grade in the UG degree examination in Part I, Part II and Part III including subsidiary/complementary. Admission to the program shall be made in the order of merit of performance of eligible candidates at the entrance examination.

## Medium of Instruction

The medium of instruction, examination, assignment, seminar, dissertation and other academic activities is English.

## Mode of Teaching

The mode of teaching comprises lectures, tutorials, assignments, seminars, case studies, library observation work, laboratory work, field training/internships and study tours.

## Attendance

The minimum requirement of attendance during a semester shall be 75 percent for each course. Condonation of shortage of attendance to a maximum of 10 percent (9 days) in a semester subject to a maximum of two times during the whole period of the programme may be granted by the university. Candidates who do not satisfy the required minimum attendance in a course shall be awarded zero grade point in that course.

### Programme Structure

The programme shall include three types of courses, Core courses, Elective Courses and Audit Courses. There shall be a compulsory Dissertation to be undertaken by all students.

Requirements	Credits
Accumulated minimum credits required for successful completion of the program	74
Minimum credits required from core courses (including dissertation)	58
Minimum credits required from elective courses	16
Minimum and maximum credits to be registered in a semester	16-24

In addition to the core courses, elective courses and compulsory dissertation, which are the mandatory requirement of the programme, each student should undergo audit courses - Ability Enhancement Course (AEC) and Professional Competency Course (PCC) – each with 2 credits in the first two semesters of the programme. These courses are mandatory for all programmes but their credits will not be counted for evaluating the overall SGPA & CGPA. After conducting the AEC and PCC, the evaluation/examination should be done either common for all students of the semester or individually depending upon the AEC and PCC conducted. Evaluation/examination on AEC and PCC must contain the following components: MCQ type written examination, report on study/investigation, presentation, viva voce, etc. as decided by the department council. Evaluation/examination must be conducted as in the theory courses and the GPA and overall grade of the AEC and PCC should be determined. The department shall conduct the evaluation/examination for these courses and have to intimate /upload the results of the same to the university on the stipulated date during the Third Semester. Students have to obtain only minimum pass requirements in the audit courses.

### Credit Distribution Table

Semester	No. of Core Courses	Credits from Core Courses	No. of Elective Courses	Credits from Elective Courses	No. of Audit Courses	Credits from Audit Courses	Total Credits
I	4	4 X 4=16	Nil	Nil	1	2*	16
II	4	4 X 4=16	1	1 X 4=4	1	2*	20
III	3	2 X 4=8 1 X 2=2	2	2 X 4=8	Nil	Nil	18
IV	3	(2 X 4)+ (1X8)=16	1	1 X 4=4	Nil	Nil	20
<b>Total</b>							<b>74</b>

\*The credits from the audit courses will not be counted for computing the SGPA/CGPA of the student. Students have to obtain only pass minimum requirements in the audit courses.

**Scheme of Evaluation**

The evaluation scheme for each course shall contain two parts

- a) Continuous (internal) evaluation, and
- b) End semester evaluation

50 percent weight shall be given to the continuous (internal) evaluation. The remaining 50 percent weight shall be for the end semester examination evaluation.

**Continuous (Internal) Evaluation**

The internal evaluation shall be based on a predetermined transparent system involving periodic written tests, viva-voce, seminars and attendance in respect of theory courses and based on lab skill/performance and viva-voce in respect of practical courses as detailed below.

**Continuous (Internal) Evaluation**

Theory Paper			Practical Paper		
Components		Marks	Components		Marks
a	Attendance*	5	A	Lab Skill	10
b	Seminar	5	B	Practical Test	30
c	Assignment	5	C	Viva Voce	10
d	Test Paper	30			
e	Viva Voce	5			
Total Marks		<b>50</b>	Total Marks		<b>50</b>

\*90% & above: 5 marks, 80 to 89%: 3 marks, 75 to 79%: 1 mark, below 75%: nil

Any dispute regarding the internal evaluation shall be taken up with the concerned teacher within 48 hours. The internal assessment marks awarded to the students in each course in a semester shall be notified on the notice board at least one week before the commencement of End Semester Examination.

**End Semester External Evaluation**

The End Semester examination in theory courses is to be conducted with question papers set by the examiners (internal/external). The evaluation of the answer scripts shall be done by the teacher offering the course and an expert (internal/external) based on a well-defined scheme of valuation framed by them. No separate minimum is required for internal evaluation for a pass, but a minimum 40% is required for each course in the End Semester examination evaluation. The End Semester practical examination shall be conducted and evaluated by two or more examiners nominated by the Department Council.

**Dissertation and Viva Voce**

Students have to carry out research on a topic approved by the department council, under the guidance of a faculty member and prepare a dissertation. They have to follow research methodology suitable to the area of interest with the approval of the supervisor. The dissertation shall be free from plagiarism. Research ethics shall be followed in every step of the work. The approved style for referencing is APA and appropriate size of the dissertation shall be 100 typed pages in A4 size paper. The students should also appear for a viva-voce. The valuation shall be jointly done by the supervisor of the dissertation in the department and an external expert from the approved panel, based on a well-defined scheme of valuation.

**Scheme of Valuation of Dissertations**

Sl. No.	Particulars	Weightage (%)
1	Review of literature and formulation of the research problem/objectives	20
2	Methods and description of the techniques used	15
3	Analysis and discussion of results	30
4	Presentation of the report, organization, styling, references, etc.	15
5	Viva voce examination based on the dissertation	20
	Total	100

**Internship**

Students have to do one month internship in a library approved by the department council during the summer holidays between second and third semesters. If any student fails to fulfil this requirement, his/ her result will be withheld until the Internship requirement is met.

**Study Tour**

Students will have to undergo one study tour to visit the most important libraries and information centres across the country. A report of the tour has to be prepared by all students.

**Question Paper Pattern**

For each course there shall be an external examination of duration 3 hours. Each question paper will consist of three parts- Part-A consisting of eight short answer type questions, each of 2 marks, in which five questions are to be answered, Part B consisting of Seven short essay type questions, each of 5 marks, in which any Four questions are to be answered; Part-C consisting of four essay type questions of 10 marks. The candidate is required to answer two questions. The questions are to be evenly distributed over the entire syllabus within each part.

**Instructions to Question Paper Setters**

Questions shall be set based on OBE and mapped to the respective Course Outcomes to assess the knowledge acquired, application of knowledge in new situations, critical evaluation of knowledge and the ability to synthesise knowledge. Due weightage shall be given to each module based on content/teaching hours allotted to each module. It has to be ensured that questions covering all skills are set. The setter shall also submit a detailed scheme of evaluation along with the question paper. A question paper shall be a judicious mix of short answer type, short essay type and long essay type questions.

**CCSS Regulations 2022**

All matters not mentioned in this document shall be dealt with according to the provisions of the CCSS Regulations 2022 and the amendments thereof issued by the University of Calicut from time to time.

**QUESTION PAPER TEMPLATE – THEORY COURSE**

Reg. No.....

Name.....

**M.Lib.I.Sc. I/II/III/IV SEMESTER DEGREE (CCSS) EXAMINATION MONTH-YEAR  
Course Code and Course Title: .....**

(2022 Admission onwards)

Time: Three Hours

Max. Marks: 50

**I. Write short notes on any Five of the following, each one not exceeding 50 words**

(05 x 02 = 10 Marks)

- a) .....
- b) .....
- c) .....
- d) .....
- e) .....
- f) .....
- g) .....
- h) .....

**II. Write short essays on any Four of the following, each one not exceeding 200 words**

(04 x 05 = 20 Marks)

- a) .....
- b) .....
- c) .....
- d) .....
- e) .....
- f) .....
- g) .....

**III. Write essays on any Two of the following, each one not exceeding 1000 words**

(02 x 10 = 20 Marks)

- a) .....
- b) .....
- c) .....
- d) .....

### **Programme Specific Outcomes (PSO) for M.Lib.I.Sc**

- PSO1** Understand the Library and Information Science profession as an interdisciplinary field, the role and history of the discipline, its basic concepts, principles, theories and the essential set of core values that define, inform and guide professional practice.
- PSO2** Understand the nature of information in all its formats and processes, the technologies that process it, and human interaction with information and associated technologies.
- PSO3** Understand and apply skills in carrying out professional activities such as acquisition, classification, cataloguing, physical processing of documents, and other library housekeeping operations.
- PSO4** Understand Information Communication Technology standards, models, approaches, requirements and solutions for data capture, storage, management, processing, presentation, publishing, access, and use.
- PSO5** Preparing information professionals who will serve as intermediaries between information and information seekers, as well as serve crucial roles in a wide variety of settings with increasingly sophisticated technological tools.
- PSO6** Develop research proficiency in problem-oriented research which analyses the basis of issues encountered in Library and Information Science and attempts to provide possible solutions.
- PSO7** Capacity building of holistic professionals with ingrained ethics and humanistic values, such as professionalism, service, social responsibility, sustainability, education and lifelong learning, and access to information as a public good.



## Scheme and Syllabus of MASTER OF LIBRARY AND INFORMATION SCIENCE

Course Code	Course Title	Type	Credits	Marks		
				Internal Evaluation	External Evaluation	Total
<b>First Semester</b>						
LIS1 C01	Library and Society	Core	4	50	50	100
LIS1 C02	Library Management	Core	4	50	50	100
LIS1 C03	Information and Communication	Core	4	50	50	100
LIS1 C04	Knowledge Organisation Theory	Core	4	50	50	100
	<b>Total</b>		<b>16</b>	<b>200</b>	<b>200</b>	<b>400</b>
Ability Enhancement Course (AEC)						
LIS1 A01	Soft Skills	Audit	2	(Credits are not counted)		
<b>Second Semester</b>						
LIS2 C05	Information Sources	Core	4	50	50	100
LIS2 C06	Information Systems and Services	Core	4	50	50	100
LIS2 C07	Knowledge Organisation Practice – Dewey Decimal Classification	Core	4	50	50	100
LIS2 C08	Knowledge Organisation Practice - Cataloguing	Core	4	50	50	100
LIS2 E--	Elective - 1	Elective	4	50	50	100
	<b>Total</b>		<b>20</b>	<b>250</b>	<b>250</b>	<b>500</b>
Professional Competency Course (PCC)						
LIS2 A02	Information Technology Competency - Practice	Audit	2	(Credits are not counted)		
One month internship in a library approved by the department council during the summer holidays between second and third semesters.						

<b>Third Semester</b>						
LIS3 C09	Research Methodology	Core	4	50	50	100
LIS3 C10	Information Technology Applications in Libraries-Theory	Core	4	50	50	100
LIS3 C11	Knowledge Organisation Practice – Universal Decimal Classification	Core	2	50	50	100
LIS3 E--	Elective - 2	Elective	4	50	50	100
	Elective - 3	Open Elective	4	50	50	100
	<b>Total</b>		<b>18</b>	<b>250</b>	<b>250</b>	<b>500</b>
<b>Fourth Semester</b>						
LIS4 C12	Information Processing and Retrieval	Core	4	50	50	100
LIS4 C13	Information Technology Applications in Libraries - Practice	Core	4	50	50	100
LIS4 C14	Dissertation	Core	8		100	100
LIS4 E--	Elective - 4	Elective	4	50	50	100
	<b>Total</b>		<b>20</b>	<b>150</b>	<b>250</b>	<b>400</b>
	<b>Total Credits</b>		<b>74</b>	<b>850</b>	<b>950</b>	<b>1800</b>

**ELECTIVE COURSES**

Course Code	Course Title	Credits	Marks		
			Internal Evaluation	External Evaluation	Total
<b>CLUSTER I</b>					
LIS2 E01	Digital Resources	4	50	50	100
LIS2 E02	Information Literacy	4	50	50	100
LIS2 E03	Information Technology - Theory	4	50	50	100
<b>CLUSTER II</b>					
LIS3 E04	Statistics and Informetrics	4	50	50	100
LIS3 E05 (Open Elective)	Knowledge Management	4	50	50	100
LIS3 E06	Digital Libraries	4	50	50	100
LIS3 E07	Organizing Digital Information Resources - Practice	4	50	50	100
<b>CLUSTER III</b>					
LIS4 E08	Technical Communication	4	50	50	100
LIS4 E09	Personality Development & Communication Skills	4	50	50	100

## FIRST SEMESTER

### LIS1 C01 – LIBRARY AND SOCIETY

**4 Credits**

**Course Outcome:**

- CO1:** Understand libraries in its social context, its role in modern society, different types of libraries and its developments in India (Understand)
- CO2:** Understand the concept of resource sharing and library networking (Understand)
- CO3:** Understand library legislation and library legislation in India and Kerala (Analyse)
- CO4:** Identify and elaborate the aims and objectives of professional associations engaged in the library and information field and analyse in detail the activities of selected library and information associations within India and outside (Analyse)

**Module 1 Library in the Social Context**

Library: conceptual change  
 Role of libraries in modern society and education  
 Development of libraries in India  
 Five Laws of Library Science, implications of Five Laws

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the role of libraries in the society and education (Understand)
- MO1:** Get a historical perspective of library developments in India with highlights of some important landmarks (Evaluate)
- MO1:** Make use of the Five Laws as a set of logical principles to initiate any new activity in library, documentation, information work and services (Understand)

**Module 2 Types of Libraries**

Types of libraries: their distinguishing features and functions  
 Public libraries, special libraries  
 Academic libraries: school, college and university libraries  
 National libraries: UK, USA, USSR  
 National library of India

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Understand different types of libraries, their distinguishing features and functions (Understand)
- MO2:** Understand the functions and services of national libraries of India, UK, USA and USSR (Understand)

**Module 3 Resource Sharing and Extension Services**

Resource sharing

Library consortia: ShodhSindhu, FORSA, CeRA

Library extension services, library publicity

Library public relations

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand the concept, purpose and services of library resource sharing and extension activities including library consortia, library networks and library public relations (Understand)

**Module 4 Library Legislation**

Need for library legislation

Essential features of library legislation

Library legislation in India- Model Public Library Bill of

Dr. S. R. Ranganathan

Public library legislation in Kerala

Kerala Public Libraries Act, 1989

Delivery of Book and Newspapers Act and the Press and

Registration of Books Act

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand the need and essential features of library legislation and Kerala Public Libraries Act, 1989 (Understand)

**MO4:** Understand the essential features of Indian Copyright Act (Understand)

**Module 5 Library and Information Science Profession**

Librarianship as a profession

Professional skills and competencies

Professional ethics

Professional associations and their role: IFLA, ILA, IASLIC, IATLIS,

CILIP, SLA, ALA, ASLIB

Promotion of library and information services by UNESCO, UGC

and RRRLF

Library and Information Science education in India

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand librarianship as a profession, professional competencies and ethical values which enhance quality in professional performance

(Understand)

**MO5:** Understand and elaborate the aims and objectives of professional associations engaged in the library and information field (Analyse)

### Activities, Learning Resources and Assessment

#### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

#### Learning Resources

1. Baker, D., & Evans, W. (2011). *Libraries and society: role, responsibility and future in an age of change*. Chandos Publishing.
2. Chowdhury, G. G. (2009). *Librarianship: an introduction*. Facet.
3. Dhiman, A. K. (2008). *A handbook of special libraries and librarianship*. Ess Ess Publication.
4. Dhiman, A. K., & Sinha, S. C. (2002). *Academic libraries*. Ess Ess Publications.
5. Kumar, P.S.G. (2019). *Student's manual of library and information science*. BR Publishing Corporation.
6. MacDougall, A., & Prytherch, R. J. (1997). *Handbook of library cooperation*. Jaico Publication House.
7. Pālacuppīramāṇiyan Pa, & Baladhandayutham, A. (2013). *Manual of library and information science*. Regal Publications.
8. Ranganathan, S. R. (2006). *The five laws of Library science*. Sarada Ranganathan Endowment.
9. Raval, A. (2013). *Handbook of public library system*. New Delhi: Discovery Pub. House.
10. Sahu, N. B., & Chakrabarti, B. (2014). *Library and society: an introduction*. Mitram.

#### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS1 C02 - LIBRARY MANAGEMENT****4 Credits****Course Outcome:**

- CO1:** Articulate and exemplify basic knowledge about concept, functions, and schools of management thoughts (Understand)
- CO2:** Understand different techniques and procedures of library housekeeping operations (Understand)
- CO3:** Understand different management activities related to space management, e-resources management, disaster management, crisis management, etc. (Understand)
- CO4:** Articulate basic knowledge about financial management and record management

**Module 1 Management in General**

Concept, definition, scope and functions  
 Management schools of thought  
 Principles of scientific management  
 Fayol's principles, POSDCORB, MBO  
 Quality management: TQM, Six Sigma  
 Project management: SWOT, PEST, PERT/CPM  
 MIS, Decision Tables, Data Flow Diagram

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Describe the concept, functions and management schools of thought and principles of scientific management (Understand)
- MO1:** Gain insight into quality improvement programmes for library and information centres (Apply)

**Module 2 Management of Library Operations**

Collection development: policies and procedures  
 Acquisition procedures: selection, ordering and accessioning  
 Technical processing: classification, cataloguing, and physical processing  
 Circulation control: charging systems  
 Serials control: selection, ordering, receipt and display  
 Maintenance of documents: stock verification and shelf rectification, withdrawals, preservation and conservation of library resources

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Get a good insight into procedures of collection development of information materials and their products (Understand)

MO2: Understand and apply various techniques and procedures for library housekeeping operations and project management techniques (Apply)

### **Module 3 Library Building and Space Management**

Library building, furniture and equipments  
 Space requirements and space management  
 Green library building, Information Commons, Makers Spaces,  
 Security of libraries  
 E-resources management, technology and change management  
 Disaster management and crisis management

#### **Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Describe the concept and planning strategy of library building, furniture, and equipments (Understand)

**MO3:** Understand and apply the space management to overcome issues related to space in libraries (Apply)

**MO3:** Understand disaster and crisis management for minimizing the impact of crisis (Understand)

### **Module 4 Human Resource Management**

Planning, job analysis, job description and job evaluation  
 Recruitment, selection, induction  
 Continuous professional development  
 Motivation, training and development  
 Performance appraisal  
 Stress management and time management

#### **Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Appreciate and grasp the value of human resource management techniques including job analysis, job description, job evaluation, recruitment and continuous professional development (Understand)

**MO4:** Understand the concept of stress management and time management and its implementation strategy (Understand)

### **Module 5 Financial and Record Management**

Sources of finance  
 Methods of financial estimation  
 Budgeting techniques-Line, PPBS, Zero based budgeting  
 Cost effective and cost benefit analysis  
 Library authority and committee  
 Annual report, staff manual, library rules and regulations



**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Know the sources of finance for libraries and describe the financial estimation methods (Understand)

**MO5:** Understand budgeting and budgeting techniques in libraries (Apply)

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

**Learning Resources**

1. Balakrishnan, S., & Paliwal, P. K. (2001). *Management of library information services*. Anmol Publications.
2. Bryson, J. (2006). *Managing information services: a transformational approach*. Ashgate.
3. Bryson, J. (2018). *Effective library and information centre management*. Routledge.
4. Evans, G. E., & Greenwell, S. (2020). *Management basics for information professionals*. Facet Publishing.
5. Kishore, J. (2001). *Handbook of library administrations*. Crest Pub. House.
6. Koontz, H. (2012). *Essentials of management*. Tata MacGraw-Hill.
7. Krishan Kumar (2005). *Library administration and management*. Vikas Publishing House.
8. Kumar, P. S. G. (2003). *Management of library and information centres*. B.R. Publication.
9. Mittal, R. L. (2007). *Library Administration: Theory and Practice*. Ess Ess Publications.
10. Panwar, B. S., & Vyas, S. D. (1986). *Library management*. B.R. Publication.
11. Stueart, R. D., & Moran, B. B. (2007). *Library and information center management*. Libraries Unlimited.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS1 C03 - INFORMATION AND COMMUNICATION****4 Credits****Course Outcome:**

- CO1:** Articulate and exemplify basic knowledge about communication, channels of communication, barriers of communication and models of communication (Understand)
- CO2:** Understand the development of information science as a discipline
- CO3:** Enunciating the Information society and information industry
- CO4:** Articulate basic knowledge about information and knowledge management
- CO5:** Understand the methods of user studies and pattern of user behaviour

**Module 1 Information and Communication**

Information: characteristics, nature, value and uses  
 Conceptual difference between data, information, knowledge and wisdom  
 Information life cycle – generation, collection, storage and dissemination  
 Role of information in planning, management, socio-economic, cultural, educational and technological development  
 Communication: channels – formal and informal  
 Communication models; communication barriers  
 Trends in scholarly communication

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Differentiate between data, information and knowledge (Understand)
- MO1:** Describe the characteristics, nature, value and uses of information (Understand)
- MO1:** Understand the channels and models of communication (Understand)

**Module 2 Information Science**

Genesis, development, definitions and scope  
 Information Science as a discipline and its relationship with other subjects  
 National Knowledge Commission  
 National Mission on Libraries

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Describe the genesis and development of Information Science and its relationship with other subjects (Understand)
- MO2:** Explain the NKC and National Mission on Libraries (Understand)

**Module 3 Information Society**

Information society: genesis and characteristics  
Intellectual Property Rights: IPR legislations in India  
Fair use provision in copyright; censorship, data security  
Right to Information Act (RTI)  
National policy of information  
Open access movement

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Describe the genesis and characteristics of information society (Understand)

**MO3:** Explain the IP Acts, RTI, fair use provision, data security, national policy of information, OA movement (Understand)

**Module 4 Economics of Information**

Information industry-categories, conventions, treaties, laws  
Information audit  
Marketing of library products and services – plan, research, strategies, mix, segmentation, pricing and advertising  
Knowledge management: types of knowledge  
Knowledge management procedures  
Role of library professionals in knowledge management

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Describe the Information industry and information audit (Understand)

**MO4:** Describe the concept of knowledge management and the role of library professionals on KM (Understand)

**Module 5 Sociology of Information**

User studies and user behaviour  
Methods of data collection  
Patterns of user behaviour  
Information behaviour models

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand user studies and explain user behaviour and information behaviour models (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

### Learning Resources

1. Andal, N. (2005), *Communication theories and models*. Mumbai: Himalaya Publishing House.
2. Bawden, David and Robinson, Lyn. (2012) *Introduction to Information Science*. London: Facet Publishing
3. Case, Donald O. (2007), *Looking for information: a survey of research on information seeking, needs and behaviour*. 2<sup>nd</sup> ed. Amsterdam: Academic Press.
4. Feather, John. (2008), *The information society: a study of continuity and change*. 5<sup>th</sup> ed. London: Facet Publishing.
5. Mc Garry, K. J. (1975), *Communication, knowledge and librarian*. London: Clive Bingley.
6. Mc Garry, K. J. (1993), *Changing context of information: an introductory analysis*. 2<sup>nd</sup> ed. London: Library Association.
7. Mc Quail, Denis and Windahl, Sven. (1981), *Communication models for the study of mass communications*. London: Longman.
8. Meadows, A. J., ed. (1991), *Knowledge and communication: essays on the information chain*. London: Library Association.
9. Norton, Melanie J. (2008), *Introductory concepts in Information Science*. New Jersey: Information Today.
10. Vickery, Brian C. and Vickery, Alina. (2004), *Information Science in theory and practice*. 3<sup>rd</sup> ed. Munchen: K. G. Saur.

### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS1 C04 – KNOWLEDGE ORGANISATION THEORY****4 Credits****Course Outcome:**

- CO1:** The students would be able to understand the concept of Universe of Subjects and different modes of formation of subjects (Understand)
- CO2:** The students would be able to familiarize the enumerative and faceted schemes of library classification (Understand)
- CO3:** Understand the different types of library catalogues, its functions and standards

**Module 1 Theory of Library Classification**

Universe of knowledge – nature and attributes  
 Modes of formation of subjects  
 Need and purpose of library classification  
 Normative principles of classification and their usefulness  
 Canons for idea plane and verbal plane  
 Principles of helpful sequence  
 Notation: types, qualities

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the nature of universe of knowledge and modes of formation of subjects (Understand)
- MO1:** Explain the Normative Principles for Idea plane and verbal plane in the library classification (Understand)
- MO1:** Describe the principles of helpful sequence in the library classification (Understand)

**Module 2 Facet Analysis and Fundamental Categories**

Concept of facet analysis  
 Fundamental categories  
 Principles for facet sequence  
 Call No., Class No., Book No., Collection No.

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Describe facet analysis and fundamental categories (Understand)
- MO2:** Understand the principles of facet sequence (Understand)

**Module 3 Classification Schemes**

Species of library classification schemes  
 Enumerative and faceted models  
 Salient features of CC, DDC and UDC  
 Trends in library classification

Automatic classification, classification in online system  
Web Dewey, Folksonomy

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand the enumerative and faceted schemes of classification and analyse features of CC, DDC and UDC (Understand)

**MO3:** Describes the trends in library classification, automatic and online classification (Understand)

**Module 4 Bibliographic Description**

Library catalogue : its purpose and functions  
Physical forms : book form, card form, OPAC/WebOPAC  
Types of catalogue: author catalogue and title catalogue  
Dictionary catalogue and classified catalogue  
Models of catalogue codes - CCC and AACR-II  
Bibliographic description & metadata standards – ISBD, MARC 21  
CCF, RDA, FRBR, Bibframe, Dublin Core, METS MODS, EAD  
Standards of Bibliographic Information Interchange ISO2709  
OAI, Z39.50

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Describe the different physical forms of library catalogues and compare their relative advantages and disadvantages (Understand)

**MO4:** Define what a bibliographic record format is (Understand)

**MO4:** Explain the nature of deferent types of bibliographic formats and describe the structure of them (Apply)

**Module 5 Subject Cataloguing, Centralized Cataloguing and Cooperative Cataloguing**

Tools for subject cataloguing - LCSH, Sears List of Subject  
Headings, authority lists  
Subject cataloguing: chain procedure and list of subject headings  
Centralised cataloguing: types, advantages and disadvantages  
Cooperative cataloguing: NPAC, union catalogues

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand about subject cataloguing, centralised cataloguing and cooperative cataloguing (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

### Learning Resources

1. Bavakutty, M. (1981). *Canons of library classification*. Kerala Library Association.
2. Bowman, J. H. (2008). *Essential cataloguing*. Facet.
3. Foskett, A. C. (2012). *The subject approach to information*. Facet.
4. Foulonneau, M., & Riley, J. (2014). *Metadata for Digital Resources: Implementation, Systems Design and Interoperability*. Elsevier Science.
5. Girija Kumar & Krishan Kumar (1986). *Theory of cataloguing*. Vikas Publishing House.
6. Husain, S. (2004). *Library classification: facets and analyses*. B.R. Publishing Corporation.
7. Kaula, P. N. (1985). *A treatise on colon classification: appended with a select bibliography on the scheme*. Sterling Publishers.
8. Krishan Kumar (2003). *Theory of classification*. Vikas Publishing House.
9. Kumbhar, R. (2012). *Library classification trends in the 21st century*. Chandos.
10. Ranganathan, S. R. (1962). *Elements of library classification*. Asia Pub. House.
11. Ranganathan, S. R. (2006). *Philosophy of library classification*. Ess Ess Publications.
12. Ranganathan, S. R. (2006). *Prolegomena to library classification*. Sarada Ranganathan Endowment.
13. Sangma, S. K. (2013). *Cataloguing rules in library science*. Centrum Press.
14. Śarma Sūraja Kānta. (1979). *Dewey decimal classification for Indology: expansion and modification of Dewey decimal classification (18) for classifying Indological books with special reference to Indian philosophy and Indian religions*. Uppal Publishing House.
15. Satija, M. P. (2013). *The theory and practice of the Dewey Decimal Classification system*. Chandos Publication.
16. Satija, M. P., & Comaromi, J. P. (1990). *Introduction to the practice of Dewey Decimal Classification*. Envoy Press.
17. Taylor, A. G., Wynar, B. S., & Miller, D. P. (2004). *Wynar's introduction to cataloging and classification*. Libraries Unlimited.
18. Welsh, A., & Batley, S. (2012). *Practical cataloguing: Aacr, Rda and MARC21*. Facet.

**Codes / Standards**

1. Anglo-American Cataloguing Rules II (most recent edition to be used)
2. Bristow, B. A., Farrar, C. S., & Sears, M. E. (2014). *Sears list of subject headings* (21st ed.). H.W. Wilson.
3. MARC 21 and related standards for bibliographic records
4. OCLC (2002). *Bibliographic formats and standards* (3rd ed.)
5. Ranganathan, S.R. (1964). *Classified catalogue code* (5th ed.). Asia Publishing House.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam



## SECOND SEMESTER

### LIS2 C05 - INFORMATION SOURCES

**4 Credits**

**Course Outcome:**

- CO1:** Articulate and exemplify basic knowledge about primary, secondary and tertiary sources (Understand)
- CO2:** Articulate basic knowledge about electronic resources (Understand)
- CO3:** Develop skill for searching, retrieving and evaluating various information source
- CO4:** Evaluating the different reference sources along with their recent trends

**Module 1 Introduction to Information Sources**

Nature, evolution, characteristics of information sources  
Sources of information-primary, secondary and tertiary sources  
Documentary and non-documentary sources  
Print and non-print sources

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Describe the evolution of physical media (Understand)
- MO1:** Explain the classification of information sources (Understand)

**Module 2 Primary Sources**

Journals  
Patents, technical reports, specification, standards  
Research reports, theses and dissertations  
Conference proceedings, trade literature

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Understand and evaluate different primary sources (Understand)

**Module 3 Secondary and Tertiary Sources**

Indexing, abstracting and reviewing periodicals  
Dictionaries and encyclopaedias  
Bibliographical, biographical and geographical sources  
Statistical sources, handbooks and manuals  
Directories, yearbooks and almanacs  
Union catalogues, Guides to literature  
Bibliography of bibliographies

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO2:** Understand and evaluate different secondary and tertiary sources (Understand)

**Module 4 Electronic Sources**

E-journals, E-books, E-zines, ETD  
 Databases and multimedia sources  
 Bibliographic, numeric, full text, open access databases  
 Subject gateways/portals, directories, e-forums  
 Institutional and human resources  
 PubMed, ShodhGanga, ProQuest, DART, Web of Science, Scopus  
 EBSCO, J-Gate, Ingenta

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand and evaluate different types of electronic Information sources (Understand)

**MO4:** Describe different search tools and techniques (Understand)

**Module 5 Project**

Evaluation of not less than 25 print reference sources and 25 electronicsources of different kinds

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Examine the different reference sources along with their recent trends (Evaluate)

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Project evaluation

**Learning Resources**

1. Bopp, Richard E. and Smith, Linda C. (2011), *Reference and information services: An introduction*, 4<sup>th</sup> ed., Libraries Unlimited.
2. Cassel, Kay Ann and Hiremath, Uma. (2013), *Reference and information services: An introduction*, 3<sup>rd</sup> ed., London: Facet Publishing.
3. Gurdev Singh. (2013), *Information Sources, Services and Systems*. New Delhi: PHI Learning.
4. Hurt, C. D. (1998), *Information Sources in Science and Technology*. 3rd ed. Westport, Conn.: Libraries Unlimited.
5. Katz, William A. (1997) *Introduction to reference work*, 7<sup>th</sup> ed. New York: McGraw Hill.
6. Krishan Kumar (2004), *Reference service*, 5<sup>th</sup> ed. New Delhi: Vikas Publishing House.
7. Ranganathan, S. R.(1961), *Reference Service*. 2nd ed. Bombay: Asia Pub. House.
8. Santa Barbara. (2005), *Evaluate information sources.*: Libraries Unlimited.
9. Sewa Singh. (2004), *Manual of reference and information sources*. New Delhi: B R. Publishing.
10. Webb, William H. et al (1986), *Sources of information with social sciences*. 3<sup>rd</sup> ed. Chicago: ALA.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS2 C06 – INFORMATION SYSTEMS AND SERVICES****4 Credits****Course Outcome:**

- CO1:** The students would be able to understand different products and services provided by libraries (Understand)
- CO2:** The students would be able to describe global and national information systems and networks (Understand)
- CO3:** The students would be able to explain the importance of information system in technology transfer and national development (Understand)
- CO4:** The students would be able to describes personalised services provided by library
- CO5:** The students would be able to understand the concept of user studies and user education (Understand)

**Module 1 Information Products and Services**

Concept, need and trends of information services  
 Concept and types of reference services  
 Reference interview and search techniques  
 Need, techniques and evaluation of alerting services-CAS  
 Referral service

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO1:** Explain the concept, trends and types of information services (Understand)

**Module 2 Information System**

Concept, characteristics, components and types of information systems. Role of information system in technology transfer and national development  
 Global information systems and networks - BIOSIS, AGRIS, ERIC, INIS, PIS, BIT, INSPEC, MEDLINE, OCLC, JANET, PubMed  
 National information systems and networks-NISCAIR, NASSDOC, DESIDOC, SENDOC, INFLIBNET, DELNET, NICNET, ERNET, NKN

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO2:** Evaluate the services provided by various information systems (Understand)

**MO2:** Understand different types of national and global information systems and networks (Understand)

**MO2:** Understand the role of information systems in knowledge transfer (Understand)

**Module 3 Personalized Information Services**

Indexing and abstracting services

Document Delivery Services

Translation services

Cloud based library services

Mobile based library services

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand the personalised information services provided by libraries (Understand)

**MO3:** Describe the cloud and mobile based library services (Understand)

**Module 4 Information Users and their Needs**

Categories of information users

Information needs: definition and types

Information seeking behaviour

User studies-methods, techniques and evaluation

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand information needs of different categories of users and techniques of user studies (Understand)

**Module 5 User Education**

Goals and objectives

Techniques and methods

User education in electronic environment

Information literacy: areas, standards, types and models

Trends in information literacy

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand the importance and techniques of user education (Understand)

**MO5:** Understand the areas, models and trends of information literacy (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

### Learning Resources

1. Bopp, R. E., & Smith, L. C. (2011). *Reference and information services: An introduction* (4th ed). Englewood: Libraries Unlimited.
2. Cassell, K. A. & Uma H. (2013). *Reference and Information Services: An introduction* (3rd ed.). Chicago: ALA.
3. Devarajan, G. (1995). *Library Information Users and Use Studies*. New Delhi: Beacon books.
4. Dhiman, A. K., & Rani, Y. (2005). *Learn information and reference sources and services*. New Delhi: Ess Ess Publications.
5. Guha, B. (1983). *Documentation and Information Services, Techniques and Systems*. Calcutta: world Press.
6. Hurt, C.D. (1998). *Information Sources in Science and Technology* (3rd ed.). Westport Conn.: Libraries Unlimited.
7. Katz, W. A. (1986). *Reference and information services: A reader for the nineties*. London: Scarecrow Press.
8. Kawatra, P. S. (1992). *Library User Studies: A Manual for Librarians and Information Scientists*. New Delhi: Jaico Publishing House.
9. Khanna J.K. (1996). *Handbook of library and information systems and services*. New Delhi: Beacon books.
10. Krishan Kumar (2004). *Reference Service*, (5th ed.). New Delhi: Vikas Publishing House.
11. Kumar, P. S.G. (2004). *Library and Users: Theory and Practice*. New Delhi: B.R. Publishing Corporation.
12. Rastogi, K.G. (2006). *Reference services in Library Science*. New Delhi: Alfa Publications.
13. Satyanarayana, N. R. (ed.). (1988). *User Education in Academic Libraries*. New Delhi: Ess Ess Publications.
14. Singh, G. (2013). *Information Sources, Services and Systems*. New Delhi: PHI Learning.
15. Stebbins, L. F. (2005). *Student guide to research in the digital age: how to locate and evaluate information sources*. Santa Barbara: Libraries Unlimited.
16. Valecich, J. (2009). *Information systems today: Managing the digital world*. New Delhi: PHI.

### Assessment

- 50 percent continuous / formative assessment
- 50 percent end-semester/summative assessment: 3 hour written exam

**LIS2 C07 – KNOWLEDGE ORGANISATION PRACTICE – DEWEY DECIMAL CLASSIFICATION** **4 Credits**

**Course Outcome:**

**CO1:** The students would be able to classify simple and complex subjects with DDC (23<sup>rd</sup> Ed.) (Understand)

**Module 1 Dewey Decimal Classification: Basic Subjects**

Familiarization of main classes, subdivisions and relative index, classification of simple specific subjects

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO1:** Describe the main classes of DDC (Understand)

**MO1:** Analyse the subdivisions and relative index of DDC (Analyse)

**MO1:** Classify the simple specific subjects with DDC (Apply)

**Module 2 Dewey Decimal Classification: Compound and Complex Subjects**

Complicated titles by applying schedules, tables and 'add.....' instructions in the Dewey Decimal Classification (23<sup>rd</sup> ed.)

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO2:** Analyse and classify complex subjects with DDC (Analyse)

**MO2:** Classify titles by applying schedules, tables and 'add...' instructions (Apply)

**Module 3 Record of Term Work: DDC**

Classification of not less than 75 documents, indicating the steps followed.

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Prepare a record of term work of classification (Create)

**MO3:** Classify the documents by following the steps (Classify)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Discussions
- Tutorials
- Practical

### Learning Resources

1. Chan, L. M., Comaromi, J. P., Mitchell, J. S., & Satija, M. P. (1996), *Dewey Decimal classification: A practical guide*. Albany: Forest Press.
2. Dewey, M., & Beall, J. (2019), *Dewey decimal classification*: Dublin, Ohio: OCLC Online Computer Library Center, Inc.
3. Dewey, M., In Fox, V. B., In Kyrios, A., & OCLC. (2020), *Dewey decimal classification*. Dublin, Ohio : OCLC, Inc.
4. Dewey, M., Mitchell, J. S., Beall, J., Green, R., Martin, G., & Panzer, M. (2011), *Dewey decimal classification and relative index*.
5. Kumar, P. S. G. (2010), *Practical guide to Colon classification*, edition-6. Agra: Associated Pub. House.
6. Raju, A. A. N. (2001), *Colon Classification: Theory and practice: A self-instructional manual*. New Delhi: Ess Ess Publications.
7. Ranganathan, S. R. (2006), *Colon classification*. New Delhi: Ess Ess Publications.
8. Sagar, R. (2003), *New concepts of practical colon classification*. New Delhi: EssEss Publications.
9. Satija, M. P. (2011), *A guide to the theory and practice of colon classification*. New Delhi: Ess Ess Publications.
10. Satija, M. P. (2013), *The theory and practice of the Dewey Decimal Classification system*. Oxford: Chandos Pub.

### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam



**LIS2 C08 – KNOWLEDGE ORGANISATION PRACTICE –  
CATALOGUING****4 Credits****Course Outcome:**

- CO1:** Familiarize with the practical awareness about cataloguing (Understand)  
**O2:** Impart skills in cataloguing documents with AACR II  
**CO3:** Experiment the process involved in cataloguing

**Module 1** Cataloguing of single authored and joint authored books**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Articulate and exemplify the preparation of bibliographic description of books, periodical publications and e-resources as per AACR2 (Understand)  
**MO1:** Involve in cataloguing of single authored and joint authored books (Analyse)

**Module 2** Cataloguing of edited books, multi volume books, and pseudonymous authors  
Cataloguing of uniform titles and serial publications**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Involve in cataloguing of edited books, multi volume books, and pseudonymous authors (Analyse)  
**MO2:** Involve in cataloguing of uniform titles and serial publications (Analyse)

**Module 3** Cataloguing of works of corporate authors: Govt. publications, institutional publications, society publications, conference/ seminar proceedings, workshop materials**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO3:** Involve in cataloguing of works of corporate authors: Govt. publications, institutional publications, society (Analyse)

**Module 4** Cataloguing of non-book materials: cartographic materials, films, CDs/DVDs

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Involve in cataloguing of non book materials: cartographic materials, films, CDs/DVDs (Analyse)

**Module 5** Cataloguing with MARC 21**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Cataloguing of documents with MARC 21 format.

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Discussions
- Practical

**Learning Resources**

1. Chan, L. M. (2007). *Cataloging and classification: An introduction* (3<sup>rd</sup> ed.). New York: Scarecrow Press.
2. Gorman, M., & Winkler, P. W. (Eds.). (1988). *Anglo-American cataloguing rules* (2<sup>nd</sup> ed.). Ottawa: Canadian Library Association.
3. Ranganathan, S. R. (1938). *Theory of library catalogue*. Madras Library Association, Madras.
4. Ranganathan, S. R., & Neelameghan, A. (2006). *Classified catalogue code: With additional rules for dictionary catalogue code*. New Delhi: Ess Ess Pub.
5. Ranganathan, S.R. (1990). *Cataloguing practice* (2<sup>nd</sup> ed.). Bangalore: Sarada Ranganathan Endowment for Library Science.
6. Sears, M. E. (2018). *Sears list of subject headings* (22<sup>nd</sup> ed.). HW Wilson.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

## THIRD SEMESTER

### LIS3 C09 - RESEARCH METHODOLOGY

**4 Credits**

#### Course Outcomes:

- CO1:** Develop research skills in students
- CO2:** Understand the research design and methods for conducting research (Understand)
- CO3:** Familiarize the art and style of writing a research report (Understand)
- CO4:** Acquaintance with intensive techniques and skills of research process

#### Module 1 Research

Concept, meaning, need and functions of research  
Types of research-fundamental, applied including Inter-disciplinary and multi-disciplinary research, individual and collaborative research, conceptual and empirical research, quantitative and qualitative research  
Process of research  
Ethical aspects of research

##### Module Outcome:

*After completion of this module, the student should be able to:*

- MO1:**Understand the concept, need and types of research (Understand)
- MO1:**Understand the process and ethical aspects of research (Understand)

#### Module 2 Research Design

Types of research design  
Identification and formulation of research problem  
Literature search: print, non-print and electronic sources  
Review of related literature  
Hypothesis: concept, functions, formulation, types and testing  
Research synopsis: concept and essential components

##### Module Outcome:

*After completion of this module, the student should be able to:*

- MO2:**Familiarize with research design (Understand)
- MO2:**Understand the research problem, literature search and hypothesis(Understand)

#### Module 3 Research Methods

Scientific method, Historical method, Descriptive method  
Survey method, Case study method, Experimental method  
Exploratory method. Delphi method, Brainstorming method

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:**Familiarize with different research methods (Understand)

**Module 4 Research Techniques and Tools**

Questionnaire  
Interview  
Observation  
Content analysis  
Scales and scaling techniques  
Records, reports and checklists  
Online research tools  
Sample and sampling techniques

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:**Evaluate the various tools used in data collection (Understand)

**MO4:**Understand the sample and sampling techniques (Understand)

**Module 5 Data Analysis, Interpretation and Report Writing**

Processing data: editing, coding and analyzing data  
Descriptive and inferential data analysis  
Presentation of data- tables and graphs  
Techniques of interpretation  
Structure, style and contents of research report  
Style manuals- APA, MLA and Chicago Manual of Style  
E-citation and reference management tools – Zotero, EndNote  
How to avoid plagiarism- best practices and methods  
Trends in Library and Information Science research

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:**Understand the preparation of data for analysis (Understand)

**MO5:**Evaluate the structure and guidelines for research reporting (Understand)

**MO5:**Understand reference management software (Understand)

**MO5:**Understand the current trends in Library and Information Science research (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

### Learning Resources

1. Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: New vistas for qualitative research*. London: sage.
2. Busha, C. T. & Harter, S. P. (1980). *Research methods in librarianship*. New York: Academic Press.
3. Connaway, L. S., & Powell, R. R. (2010). *Basic research methods for librarians*. ABC-CLIO.
4. De Leeuw, E. D., Hox, J. J., & Dillman, D. A. (2008). *In the international handbook of survey methodology*. Routledge.
5. Greenfield, T. (1996). *Research methods: Guidance for postgraduates*. London; Toronto: Arnold; Wiley.
6. Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
7. Krishan Kumar (1999). *Research methods in library and information science*. (Rev. ed.). New Delhi: Har-Anand Publications.
8. Kumar, P S G. (2004). *Research methods and statistical techniques*. New Delhi: B. R. Publications.
9. Line, M. B. (1967). *Library Surveys: An Introduction to their use, planning procedure and presentation*. London: Clive Bingley.
10. Martyn, J., & Lancaster, F. W. (1981). *Investigative methods in library and information science*. Arlington, VA: Information resources press.
11. Powell, R. R. & Silipigni, C. L. (2004). *Basic research methods for librarians*. (4<sup>th</sup> ed.). Westport: Libraries Unlimited.
12. Slater, M. (1990). *Research methods in library and information studies*. London: Library Association.
13. Trochim, W. M.K. (2003). *Research Methods* (2nd ed.). New Delhi: Biztantra.
14. Williamson, K. (2002). *Research methods for students, academics and professionals: Information management and systems*. Elsevier.
15. Young, P.V. (1939). *Scientific social surveys and research*. New York: Prentice-Hall.

### Assessment

- 50 percent continuous / formative assessment
- 50 percent end-semester/summative assessment: 3 hour written exam

**LIS3 C10 – INFORMATION TECHNOLOGY APPLICATIONS IN LIBRARIES- THEORY****4 Credits****Course Outcomes:**

- CO1:** Understand the need, planning and implementation of library automation, and automated in-house library operations with library management software(Understand)
- CO2:** Understand the design and development of digital libraries and institutional repositories (Understand)
- CO3:** To discuss the adoption of various emerging technologies in libraries and information centres

**Module 1 Library Automation**

Need for library automation  
 Areas of library automation  
 Automation of library housekeeping operations  
 Selection of hardware and software for automation  
 Integrated library management systems: Koha  
 OPAC/WebOPAC, Webscale Discovery Services

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the need and areas of library automation (Understand)  
**MO1:** Learn the selection of hardware and software for library automation (Understand)

**Module 2 Digital Libraries**

Digital library: definition, scope and characteristics  
 Major digital library initiatives in the world and in India  
 Digital library technologies-digital representation and compression. Identification of, accessing, processing, storage, delivery and use of digital resources  
 Digital library creation - prerequisites; content development  
 Metadata development; and search options  
 Open source digital library software – GSDL

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Understand the concept and characteristics of digital libraries (Understand)  
**MO2:** Learn the major digital library initiative in the world and in India(Understand)

**MO2:** Understand the creation of digital libraries, its prerequisites and digital library technologies (Understand)

**Module 3 Institutional Repositories**

Institutional repositories-concepts, characteristics and purpose

Institutional repositories in India

Design and architecture of institutional repositories

Contents and standards of institutional repositories

Institutional repository software – DSpace, EPrints, Fedora

ROAR, DOAR, SHARPA-ROMIO

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand the concept, characteristics, design and architecture of institutional repositories (Understand)

**MO3:** Evaluate different institutional repository software (Evaluate)

**Module 4 RFID in Libraries**

RFID-characteristics and features

RFID components; how does RFID works

Application of RFID in libraries

Barcode, QR Code, Biometric, Smartcards: features and applications

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand the characteristics, features and components of RFID (Understand)

**MO4:** Learn the application of RFID in libraries (Understand)

**Module 5 Application of Emerging Technologies in Libraries**

Library 2.0/3.0

Application of Artificial Intelligence, Expert Systems, Robotics, Machine Learning, Block Chain technology, Cloud computing, Virtual Reality and Augmented Reality in libraries

Role of libraries in Research Data Management

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand the application of emerging technologies like artificial intelligence, expert systems, robotics, machine learning, block chain technology, cloud computing, virtual reality and augmented reality in libraries (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Demonstration

### Learning Resources

1. Arms, William Y. (2000). *Digital libraries*. Cambridge, London: MIT Press.
2. Ayo, C. K. (2001). *Information technology: Trends and applications in science and business*. Lagos: Concept Publications Limited.
3. Cohn, John M. (2001). *Planning for integrated systems and technologies: A how to-do-it manual for librarians*. New York: Neal-Schuman.
4. Cooper, M. D. (1996). *Design of library automation systems: File structures, data structures, and tools*. New York: John Wiley & Sons
5. Dickson, G. W., & DeSanctis, G. (2000). *Information technology and the future enterprise: New models for managers*. Prentice Hall.
6. Gallimore, A.(1997). *Developing an IT strategy for your library*. Library Assn Pub Limited.
7. Kimber, R. T., & Boyd, A. H. (1974). *Automation in libraries*. Oxford, New York: Pergamon Press.
8. Lesk, M. (1997). *Practical digital libraries: Books, bytes, and bucks*. Morgan Kaufmann.
9. Ramana, P. V. (2004). *Information technology applications in libraries*. Ess Ess Publications.
10. Ravichandra Rao, I. K. (1990). *Library automation*. New Delhi: Wiley Eastern.
11. Rowley, Jennifer. (1998). *The electronic library*. London: Library Association Publishing.
12. Williams, Brian K., & Sawyer, Stacey C. (2014). *Using information technology: A practical introduction to computers & communications* (11th ed.). McGraw-Hill.

### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam



## LIS3 C11 – KNOWLEDGE ORGANISATION PRACTICE - UNIVERSAL DECIMAL CLASSIFICATION 2 Credits

### Course Outcomes:

**CO1:** Practical awareness of document classification (Understand)

**CO2:** Application of subject classification based on UDC (Understand)

**Module** Classification of simple, compound and complex subject books and periodicals according to standard edition of UDC.

### Module Outcome:

*After completion of this module, the student should be able to:*

**MO:** Understand the Universal Decimal Classification (Understand)

**MO:** Classify simple and complicated specific subjects (Apply)

**MO:** Use of Common and Special auxiliaries (Understand)

**MO:** Solve the titles not less than 75 documents in UDC (Apply)

**MO:** Determine book numbers have to be derived from the name of author(s) (Apply)

### Activities, Learning Resources and Assessment

#### Suggested Class Room Activities

- Assignments
- Record of term work
- Practical

#### Learning Resources

1. Fosket, A. C. (1973). *Universal Decimal Classification: The history, present status and future prospects of a large general classification scheme*. London, Bingley.
2. McIlwaine, I. C. (2007). *The Universal Decimal Classification: A guide to its use*. The Hague, Netherlands: UDC Consortium
3. *Universal Decimal Classification* (Latest Edition). London: British Standards Institution.

#### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

## FOURTH SEMESTER

### LIS4 C12 -INFORMATION PROCESSING AND RETRIEVAL

**4 Credits**

**Course Outcome:**

- CO1:** The students would be able to understand information retrieval system
- CO2:** The students would be able to understand different types of indexing systems
- CO3:** The students would be able to understand information retrieval models and evaluation of information retrieval system
- CO4:** The students would be able to understand concepts and applications of natural language processing
- CO5:** The students would be able to search information through web-based information retrieval systems

**Module 1 Information Retrieval Systems**

Information Retrieval Systems - purpose and components  
 Functional aspects of Information Retrieval Systems  
 Information Retrieval System Design and performance requirements

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO1:** Understand the basic concepts and components of IR (Understand)

**Module 2 Subject Indexing**

Assigned and Derived Indexing  
 Pre-Coordinate and Post-Coordinate Indexing  
 Chain Indexing, PRECIS, POPSI  
 Keyword Indexing: KWIC, KWAC, KWOC  
 Automatic Indexing, Citation Indexing  
 Features of Scopus, Web of Science, Google Scholar  
 Thesaurus, Classarus

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO2:** Describe different types of indexing systems and techniques (Understand)

**Module 3 Information Retrieval Models**

IR models: Boolean, Probabilistic and Vector Processing and Semantic Models  
 Evaluation of information retrieval systems, Recall and Precision

Evaluation experiments : ASLIB and Cranfield study, MEDLARS study and SMART

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand different information retrieval models and evaluation of information retrieval systems (Understand)

**MO3:** Examine steps for evaluation of information retrieval system and evaluation projects like Aslib Cranfield, MEDLARS, SMART and TREC

**Module 4 Natural Language Processing (NLP)**

Concept of NLP

NLP- syntactic, discourse, semantic and pragmatic analysis

Lexical resources-WordNet

Problems and prospects of NLP system: Lexical, syntactic and referential ambiguity

Application of NLP in IRS: Chatbots, and Voice Assistance

Sentiment Analysis

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand the concept, meaning and applications of NLP (Understand)

**Module 5 Web-based Information Retrieval Systems**

Web-based information retrieval

Web search through search engines, metasearch engines, web indexes

Searching techniques: Keyword search, Boolean operators, proximity search, phrase search, field searching, concept searching, wild card search, truncation, searching of databases, catalogues, etc

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand web based information retrieval systems (Understand)

**MO5:** Understand search methods and techniques in a web based environment (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

### Learning Resources

1. Balakrishnan, S., & Paliwal P. K. (2001). *Principles of information retrieval*. New Delhi: Anmol Publications.
2. Balasubramanian, P., & Vasanthakumar N. (2015). *Information processing and retrieval: In library and information science*. New Delhi: Regal Publications.
3. Chowdhury, G. G. (2010). *Introduction to Modern information retrieval* (3rd ed.). London: Facet publishing.
4. Chowdhury, G. G., & Chowdhury, S. (2007). *Organizing information: From the shelf to the web*. London: Facet Publishing.
5. Date, C.J. (1999). *An introduction to database systems*. MA, United States: Addison-Wesley.
6. Dhawan, K.S. (1997). *Principles of information retrieval*. New Delhi: Commonwealth Publishers.
7. Korfhage, Robert R. (1997). *Information storage and retrieval*. New York: John Wiley & sons Inc.
8. Kumar, P S G (2003). *Knowledge organization, information processing and retrieval practice*. B. R. Publishing Corporation.
9. Lancaster, F W. (1979). *Information retrieval systems: Characteristics, testing and evaluation* (2nd ed.). New York: Wiley.
10. Richardo, B.Y. (1999). *Modern information retrieval*. Delhi: Pearson Education.
11. Satyanarayana, N.R. (2016). *An introduction to information processing and retrieval: For library and information professionals*. New Delhi: ESS ESS publication.
12. Sharma, C. K., & Sharma, A. K. (2007). *Information process and retrieval*. Atlantic Publishers.

### Assessment

- 50 percent continuous / formative assessment
- 50 percent end-semester/summative assessment: 3 hour written exam

**LIS4 C13 – INFORMATION TECHNOLOGY APPLICATIONS IN LIBRARIES – PRACTICE****4 Credits****Course Outcome:**

- CO1:** The students would be able to acquire skills for installation, customization and use of Koha Library Management Software, GSDL and DSpace digital library/institutional repository software
- CO2:** The students would be able to achieve practical knowledge to design and develop library websites/portals
- CO3:** The students would be able to acquire practical knowledge in SPSS, Zotero and EndNote reference management software

**Module 1** Library automation package – Koha**Module Outcome:***After completion of this module, the student should be able to:***MO1:** To install, customize and use Koha Library Management Software**Module 2** Digital Library/Institutional Repository software – Greenstone/DSpace**Module Outcome:***After completion of this module, the student should be able to:***MO2:** To install, customize and use digital library/Institutional repository with GSDL and DSpace**Module 3** Library website / portal design**Module Outcome:***After completion of this module, the student should be able to:***MO3:** Design and develop library websites/portals**Module 4** Statistical Package-SPSS**Module Outcome:***After completion of this module, the student should be able to:***MO4:** Understand and use SPSS for data analysis

**Module 5** Reference management software -- Zotero; EndNote**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand and handle Zotero and EndNote for reference management

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Demonstration / Hands on training

**Learning Resources**

1. Brain, A. (2001). *Web Design*. New Delhi: Dreamtech Publications.
2. Digital Library Planning and Implementation. (2020, March 18). <https://www.youtube.com/watch?v=015urPL5FxM&feature=youtu.be>
3. Faruqi K. K. (1995). *Online database searching and retrieval: Strategies, procedures, commands, and problems: A brief Guide*. Bangalore: Sarada Ranganathan endowment.
4. Kumari, N. (2016). Web-based services in library and information science. *International Journal of Next Generation Library and Technologies*, 2(1), 8.
5. Mishar, V. K. (2016). *Basics of library automation: Koha library management software and data migration*. New Delhi: Ess Ess Publications.
6. Poornima G. N. & Girish R. N. (2019). *Creating and Managing Institutional Repository Using DSpace: A Case Study*. Chhattisgarh: Educreation Publishing.
7. Rohith, K. (2001). *HTML 4 U*. New Delhi: APH Publishing Corporation.
8. Sue, Jenkins. (2007). *Web Design: The L Line, the Express Line to Learning*. New Delhi: Wiley India Publication.
9. Tripathi, A., Prasad H. N., & Mishra, R. (2010). *Open Source Library Solutions*. New Delhi: Ess Ess Publications.
10. Uma V, Suseela J. (2017). *Automation of Library integration operation: A how to do manual*. New Delhi: Ess Ess Publications.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS4 C14 – DISSERTATION****8 Credits**

Students have to carry out research on a topic approved by the department council, under the guidance of a faculty member and prepare a dissertation. They have to follow research methodology suitable to the area of interest with the approval of the supervisor. The dissertation shall be free from plagiarism. Research ethics shall be followed in every step of the work. The approved style for referencing is APA and appropriate size of the dissertation shall be 100 typed pages in A4 size paper. The students should also appear for a viva-voce. The valuation shall be jointly done by the supervisor of the project in the department and an External Expert from the approved panel, based on a well-defined scheme of valuation.

## ELECTIVE COURSES

Among the following courses, the Department Council can select the elective courses for different semesters

### LIS2 E01 - DIGITAL RESOURCES

**4 Credits**

#### Course Outcome:

- CO1:** Understand digital resources and their types (Understand)
- CO2:** Grasp the techniques and processes involved in digital collection development
- CO3:** Understand the techniques and methods of digital resources management (Understand)
- CO4:** Aware digital resource initiatives in India
- CO5:** Illuminate the concept of various open education resources (Understand)

#### Module 1 Introduction to Digital Resources

Digital resources: definition, characteristics, scope and challenges  
 Variety of digital resources: e-books, e-journals, e-zines, databases, geospatial e-resources  
 Electronic Theses and Dissertations (ETDs)  
 Subject gateways, digital libraries, institutional repositories

#### Module Outcome:

*After completion of this module, the student should be able to:*

**MO1:** Narrate the characteristics and scope of different types of digital resources (Understand)

#### Module 2 Electronic Resources: Collection Development

Selection tools  
 Licensing and negotiation  
 Digital Rights Management  
 Open digital resources  
 Incorporating free resources into library collections

#### Module Outcome:

*After completion of this module, the student should be able to:*

**MO2:** Understand the different process and tools involved in digital collection development (Understand)

#### Module 3 Electronic Resources Management

Electronic resources life cycle  
 ERAMS – A Z lists, Open URL, Link resolvers, Federated search services, Web discovery services



Managing multiple formats, preservation and archiving of e-resources

Marketing strategies for the digital resources in the library  
Innovative library services using digital resources

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Learn how to manage electronic resources (Understand)

**MO3:** Identify different tools and techniques used for e-resource archiving and preservation (Understand)

**MO3:** Familiarize innovative library services used in digital resources (Understand)

**Module 4 Digital Resources Initiatives in India**

Initiatives for the production, storage and dissemination of digital information

Library consortia: UGC ShodhSindhu, DAE, FORSA

Scholarly Journals: Indian Academy of Sciences, INSA, MedIND, IndianJournals.com

ETDs: ETDs of IITs, IISc. Vidyanidhi, ShodhGanga,

Digital Library of India, EPrints@iisc, Librarian's Digital Library

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Enlightened on digital resources initiatives in India (Understand)

**MO4:** Understand various library consortia and ETDs in India (Understand)

**Module 5 Open Educational Resources**

Learning Management System

Open Educational Resources

MIT OpenCourseWare

Online Courseware: NPTEL, e-PG-Pathshala, Swayam

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Well informed on different types of open educational resources (Understand)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

### Learning Resources

1. Andrew, C. (2010). *Introduction to digital library management*. London: Facet Publishing.
2. Chowdhury, G. G. & Chowdhury, S. (2003). *Introduction to digital libraries*. London: Facet Publishing.
3. Gunjal, B., Pradhan, D. K., & Mishra, V. K. (eds.). (2016). *Electronic resource management in libraries*. New Delhi: ESS publication.
4. Jones, R., Andrew, T., & MacColl, J. (2006). *The institutional repository*, Oxford: Chandos Publishing.
5. Kaushik, A. (2017). *Massive open online course (MOOC) in Library Science Domain*, New Delhi: B.R. publishing.
6. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition* (Vol.1). New Delhi: B.R Publishing.
7. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition*. (Vol.2). New Delhi: B.R Publishing.
8. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition*. (Vol.3). New Delhi: B.R Publishing.
9. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition*. (Vol.4). New Delhi: B.R Publishing.
10. Penny, D., Beard, J., & Holland, M. (eds.). (2017). *University Libraries and digital learning environments*. Routledge.

### Assessment

- 50 percent continuous / formative assessment
- 50 percent end-semester/summative assessment: 3 hour written exam

**LIS2 E02 - INFORMATION LITERACY****4 Credits****Course Outcome:**

- CO1:** Understand the need, types and models of information literacy (Understand)  
**CO2:** Understand different information literacy policies, standards and assessment tools  
**CO3:** Understand the different methods to access information (Understand)  
**CO4:** Illuminate the role of libraries in information literacy (Understand)

**Module 1 Introduction to Information Literacy**

Meaning, definition and need for information literacy  
 Levels of information literacy: entry level, mid level, high level, and advance level  
 Technological component of information literacy  
 Digital divide and information literacy  
 Barriers of information literacy

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the need and levels of information literacy (Understand)  
**MO1:** Understand the technological components and barriers of information literacy (Understand)

**Module 2 Types of Information Literacy**

Library literacy, technology literacy, media literacy, computer and digital literacy, resource literacy, research literacy, publishing literacy, meta literacy  
 Models of Information literacy: Big6, 8Ws Model, The Research Cycle, PLUS Model, DIALOGUE Model, SCONUL Seven Pillars of Information Literacy, Empowering 8IL Model

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Understand the different types and models of information literacy (Understand)

**Module 3 Information Literacy Policies and Standards**

International and national initiatives, policies and guidelines  
 IFLA, ALA, UNESCO,  
 Information literacy standards  
 Information literacy best practices  
 Information literacy assessment tools

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand different information literacy policies, standards and assessment tools (Understand)

**Module 4 Retrieval of Information**

Library catalogues, indexes, OPAC/WebOPAC, Webscale

Discovery

Search strategy, techniques and methods, use of Boolean logic

Search engines, metasearch engines and web directories

Techniques of retrieving relevant information from the Internet

Evaluation of information from the Internet

Ethics of creating and using information

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand the different methods to access library catalogue (Understand)

**MO4:** Assess different search strategies and techniques (Analyse)

**MO4:** Evaluate information accessed from internet (Evaluate)

**Module 5 Role of Libraries in Information literacy**

Information literacy instructions in different types of libraries and information centers

Study of information literacy programs in the world

Information literacy competencies

Challenges facing information literacy

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand different information literacy programs take place around the world (Understand)

**MO5:** Understand various information literacy competencies (Understand)

**MO5:** Analyse the challenges in information literacy (Analyse)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

### Learning Resources

1. Bruce, C. (1997). *The Seven Faces of Information Literacy* (p.110). Adelaide: Auslib Press.
2. Buckingham, D. (2003). *Media Education: Literacy, learning and contemporary*. Cambridge, MA: Polity Press.
3. Cordell, R. M. (Ed.) (2013, June). *Library Reference Services and Information Literacy: Models for Academic Institutions: Models for Academic Institutions*. IGI Global. doi:10.4018/978-1-4666-4241-6
4. Horton Forest Woody, J. (2007). *Understanding Information Literacy:A Primer*;United Nations Educational,Scientific and Cultural Organization.
5. *Media and Information Literacy; Policy and Strategy Guidelines; UNESCO;* (2013). United Nations Educational, Scientific and Cultural Organization. Retrieved from <http://www.unesco.org/new/en/communication-and- information>
6. Potter, W. J. (2004). *Theory of Media Literacy:A Cognitive Approach*. Thousand Oaks,CA: Sage.
7. Radcliff, C. J., Jensen,, M. L., Jr., J. S., Burhanna, K. J., & Gedeon, J. A. (2007). *A Practical Guide to Information Literacy Assessment for Academic Librarians*. Greenwood Publishing Group.
8. Silverstone, R. (2007). *Media and Morality: On the Rise of Mediapolis*. Cambridge: Polity Press. Retrieved from <http://www.polity.co.uk/book.asp?ref=9780745635033>

### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS2 E03 – INFORMATION TECHNOLOGY THEORY****4 Credits****Course Outcomes:**

- CO1:** Develop a thorough understanding of the architecture of computer, types of software, various operating systems and programming languages, database and database management systems (Understand)
- CO2:** Understand the fundamentals of telecommunication technology, media, nature and components of networking devices, computer network types and LAN topologies(Understand)
- CO3:** Understand the Internet connectivity, protocols, search engines, and web 2.0/3.0.
- CO4:** Describe the societal Impacts of Information Technology with regard to the privacy, security and integrity of information (Understand)

**Module 1 Computer: Architecture and Technology**

Introduction to Information Technology  
 Computer hardware, software and storage devices  
 Types of software: system software and application software  
 Operating system-Windows and Linux  
 Programming languages –object oriented, procedural, high level, scripting, web languages

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Describe the architecture of computer and the types of software (Understand)
- MO1:** Explain various operating systems and programming languages (Understand)

**Module 2 Data Processing**

File design, data files, records  
 File organization: serial, sequential, direct access, indexed sequential and random access file organization  
 Database: concepts, organization and types  
 Database Management System (DBMS) - Architecture

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Describe file design and various file organisation methods (Understand)
- MO2:** Explain database concepts and DBMS architecture (Understand)

**Module 3 Computer Networks and Networking**

Computer networks - definition and examples  
 Network media-UTP, Optical fiber, Ethernet, Network Interface  
 Cards, Hubs, Routers, Gateway, ISDN, PSDN  
 Network types PAN, LAN, MAN, CAN, WAN, SAN  
 LAN topologies: bus, star, ring, tree, mesh and token ring  
 networks  
 Wireless Network: WiFi, WiMAX, Bluetooth, LiFi

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand computer networks, wireless networks, network media, network types, and LAN topologies (Understand)

**Module 4 Internet**

History and development of the Internet  
 Internet protocols and standards-HTTP, SHTTP, FTP, SMTP, TCP/IP  
 Internet applications/services/utilities  
 Search engines and metasearch engines  
 Web 2.0/3.0 technologies, Social Media, Invisible Web,  
 Internet of Things (IoT)  
 Semantic Web, Ontology – tools RDF, RDFS, Protégé,  
 Social Mobile Analytics Cloud (SMAC) :Linked Data, Open Data  
 and Big Data

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Describe the history and development of the Internet (Understand)

**MO4:** Describe the Internet connectivity, protocols, search engines, Web 2.0/3.0 (Understand)

**MO4:** Explain Internet of Things, Semantic Web, and ontology (Understand)

**Module 5 Societal Impacts of Information Technology**

Privacy, security and integrity of information  
 Computer security, cyber security and cyber crimes  
 Firewall, proxy server, and cryptographic techniques  
 Cyber bullying-types, consequences, prevention and law  
 The Information Technology Act, 2000

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Describe the societal impacts of information technology with regard to the privacy, security and integrity of information (Understand)

**MO5: Understand the Information Technology Act, 2000(Understand)****Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Demonstration

**Learning Resources**

1. Arthur, L. J. & Burns, T. (1994). *UNIX shell programming* (3<sup>rd</sup> ed). New York: Wiley.
2. Blum, R. (2007). *Professional Linux programming*. John Wiley & Sons.
3. Borgman, C. L. (2015). *Big data, little data, no data: Scholarship in the networked world*. MIT press.
4. Date, C. J. (1987). *A guide to the SQL standard: A user's guide to the standard relational language SQL*. Addison-Wesley Longman Publishing Co., Inc.
5. Date, C. J. (1999). *An introduction to database systems* (7<sup>th</sup> ed.). MA, USA: Addison-Wesley Longman.
6. Elmasri, R., & Navathe, S. B. (2011). *Fundamentals of database systems* (6<sup>th</sup> ed.). Boston: Pearson/Addison-Wesley.
7. Godbole, A. & Atul Kahate (2013). *Web technologies: TCP/IP, Web/Java programming, and cloud computing* (3<sup>rd</sup> ed.). McGraw-Hill.
8. Gosselin, D., Guthrie, R., Lopez, L. A., Sklar, J., Slaybaugh, M., & Soe, L. (2003). *The web warrior guide to web design technologies*. Course Technology.
9. Haravu, L. J. (2007). *Library automation design principles and practice*. New Delhi: Allied Publishers.
10. Hennig, N. (2017). *Keeping up with emerging technologies: Best practices for information professionals*. Santa Barbara, CA: Libraries Unlimited.
11. Joiner, I. A. (2018). *Emerging library technologies: It's not just for Geeks*. Chandos Publishing.
12. Mathew, Neil et al. (2000). *Professional Linux programming*. Apress.
13. Michael, R. K. (2003). *Mastering UNIX shell scripting*. Wiley.
14. Petersen, R. (2007). *Linux: The complete reference*. Tata McGraw-Hill Education.
15. Williams, B. K., Sawyer, S. C., & Hutchinson, S. E. (1999). *Using information technology: A practical introduction to computers and communications* (3<sup>rd</sup> ed.). New Delhi: Tata McGraw-Hill.

**Assessment**

- 50 percent continuous / formative assessment
- 50 percent end-semester/summative assessment: 3 hour written exam



**LIS3 E04 - STATISTICS AND INFORMETRICS****4 Credits****Course Outcomes:**

- CO1:** Articulate and exemplify various statistical methods in Library and Information Science research (Understand)
- CO2:** Application of various statistical tools and techniques for data analysis (Understand)
- CO3:** Recognize application of metrics study in Library and Information Science

**Module 1 Introduction to Statistics**

Origin and meaning of Statistics  
 Scope and general uses  
 Limitations of Statistics  
 Use of Statistics in libraries and information centres

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Describe origin, meaning and scope of statistics (Understand)
- MO1:** Explain the use of statistics in libraries and information centres (Understand)

**Module 2 Measures of Central Tendency**

Arithmetic Mean and Weighted Arithmetic Mean  
 Median and Mode  
 Geometric Mean  
 Harmonic Mean

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Distinguish different types of measures of central tendency (Analyse)

**Module 3 Measures of Dispersion**

Definition and characteristics of good dispersion  
 Range, Quartile Deviation, Mean Deviation, Standard Deviation, Percentiles and Deciles  
 Relative measure of dispersion – coefficient of variation  
 Definition of measures of Skewness and measures of Kurtosis.

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO3:** Define and understand the characteristics of dispersion (Understand)  
**MO3:** Analyse different types of measures of dispersion (Analyse)  
**MO3:** Describe measures of Skewness and measures of Kurtosis (Understand)

#### **Module 4 Correlation and Regression**

Karl Pearson's coefficient of correlation  
 Concept of rank correlation, Spearman's rank correlation coefficient  
 Simple regression- properties and uses  
 Testing of hypothesis: significance level, one tailed test, two tailed tests, Type I error and Type II error, T test, Chi square test, F test, ANOVA

##### **Module Outcome:**

*After completion of this module, the student should be able to:*

- MO4:** Explain different types of correlation (Understand)  
**MO4:** Understand different methods used in testing hypothesis (Understand)

#### **Module 5 Metric Studies**

Definition, scope and genesis of Bibliometrics, Scientometrics, Webometrics and Altmetrics  
 Bibliometrics laws-Bradford's law, Zipf's law and Lotka's law  
 Citation analysis and citation study, Bibliographic coupling  
 Co-citation analysis  
 Growth and obsolescence of literature  
 Software tools for informetric analysis  
 Impact factors-Journals, Authors and Institutions; h-index, g-index, i-10 index

##### **Module Outcome:**

*After completion of this module, the student should be able to:*

- MO5:** Describe the definition, scope and genesis of bibliometrics, scientometrics, webometrics and altmetrics (Understand)  
**MO5:** Explain different laws in bibliometrics (Understand)  
**MO5:** Understand different methods of impact factors (Understand)

### **Activities, Learning Resources and Assessment**

#### **Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

**Learning Resources**

1. Croxton, F E, D J Cowden and S Klein, (1979). *Applied General Statistics*, Prentice Hall of India, New Delhi.
2. Egghe, L., & Rousseau, R. (1990). *Introduction to informetrics: Quantitative methods in library, documentation and information science*. Elsevier Science Publishers.
3. Egghe, L., & Rousseau, R. (2003). *Elementary statistics for effective library and information service management*. Routledge.
4. Gupta, C.B., and Vijay Gupta, (1998), *An Introduction to Statistical Methods*, Vikas Publishing House Pvt. Ltd., New Delhi.
5. Gupta, S.C., and Kapoor, V.K., *Fundamentals of Mathematical Statistics*, Sultan Chand & Sons, New Delhi.
6. Gupta, S.P., (1999), *Statistical Methods*, Sultan Chand & Sons, New Delhi.
7. Montgomery, D.C. and L.A. Johnson. (1996), '*Forecasting and Time Series Analysis*' McGraw Hill : New York.
8. Spiegel, M R. (1992). *Statistics*, Schaum's Outline Series, McGraw Hill, Singapore.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS3 E05 - KNOWLEDGE MANAGEMENT****4 Credits****Course Outcomes:**

- CO1:** Articulate and exemplify basics of knowledge management (Understand)  
**CO2:** Distinguish different types of knowledge (Understand)  
**CO3:** Enunciating the concepts of KM Systems, knowledge architecture etc  
**CO4:** Express effectively about Knowledge Management systems, tools and portals  
**CO5:** Articulate basic knowledge about knowledge capturing, codification, transferring and sharing

**Module 1 Knowledge Management Basics**

Knowledge Management -concepts and definition  
 Need for Knowledge Management  
 Knowledge Management systems  
 Issues in Knowledge Management

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO1:** Understand the basic concept of knowledge management and knowledge management systems (Understand)

**MO1:** Analyse issues in knowledge management (Analyse)

**Module 2 Types of Knowledge**

Characteristics of knowledge  
 Subjective and objective view of knowledge  
 Procedural vs. Declarative knowledge  
 Tacit vs. Explicit knowledge  
 General vs. Specific knowledge  
 Technically vs. Contextually Specific knowledge

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO2:** Understand the characteristics and different types of knowledge (Understand)

**Module 3 Knowledge Creation & Knowledge Architecture**

Knowledge creation, Nonaka's Model of Knowledge Creation & Transformation,  
 Knowledge Architecture, acquiring the KM System capturing tacit knowledge – methods  
 Knowledge codification – tools and procedures  
 Knowledge testing; knowledge transfer

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand knowledge architecture and grasp the process involved in knowledge creation (Understand)

**MO3:** Remember the concept of knowledge testing and knowledge transfer (Understand)

**Module 4 Knowledge Base**

Knowledge mapping  
Decision trees, decision tables, frames  
Knowledge works  
Knowledge markets

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand the knowledge mapping and describe different types of knowledge mapping (Understand)

**Module 5 Knowledge Management System Tools and Portals**

Data visualization  
Tools and techniques of knowledge management  
Knowledge based systems vs expert systems  
Neural networks, data mining; managing knowledge workers  
Knowledge management in library and information centres

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand basics of data visualisation (Understand)

**MO5:** Understand the different tools and techniques used in knowledge management (Understand)

**MO5:** Application of knowledge management in library and information centres (Remember)

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

## Learning Resources

1. Alavi, M. and Leidner, D.E. (2001) *Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues*. MIS Quarterly, 25, 107-136.  
<http://dx.doi.org/10.2307/3250961>
2. Becerra-Fernandez, I., & Sabherwal, R. (2014). *Knowledge Management: Systems and Processes*. Routledge
3. D.G. Schwartz, (2006). 538–543. Hershey, PA: Idea Group Publishing
4. Davenport, T. H., & Prusak, L. (1998). *Working knowledge*. Boston, MA: Harvard Business School Press.
5. Desouza, K.C. & Paquette, S. (2011). *Knowledge management: an introduction*, London: Neal Schuman Publishing.
6. Dhiman, A. K., & Sharma, H. (2009). *Knowledge Management for librarians*. New Delhi: Ess Ess Publication.
7. Elliasm, Awad and Hassan M Ghaziei. (2010). *Knowledge management*. 2nd ed. New Delhi: PHI Leans.
8. Gupta, A. (2015). *Application of Knowledge for Management in Digital Era*. New Delhi: Centrum Press.
9. King, W.R.. In “*Knowledge transfer*”: *The encyclopaedia of knowledge management*, ed.
10. Koenig, Michael EP & Srikantalah, T.K. (Eds.). (2008). *Knowledge management lessons learned: what works & what doesn't*. New Delhi, Ess Ess Publications.
11. Liebowitz, J. and Wilcox, L.C. (1997). *Knowledge management and its integrative elements*. USA: CRC Press.
12. Liebowitz, J. (1957). *Knowledge management: lessons learned from knowledge engineering*. US: CRC Press.
13. Management systems: Conceptual foundations and research issues. MIS Quarterly,
14. McInerney, Claire, and Koenig, Michael E. D., (2011). *Knowledge Management (KM) Processes in Organizations: Theoretical Foundations and Practice*, Morgan and Claypool.
15. Michael Earl (2001). *Knowledge Management Strategies: Toward a Taxonomy*, *Journal of Management Information Systems*, 18:1, 215-233, DOI: [10.1080/07421222.2001.11045670](https://doi.org/10.1080/07421222.2001.11045670)
16. Natarajan, M. (2015). *Knowledge management: challenges and applications*. New Delhi: EssEss Publication.
17. Nonaka, I., Takeuchi, H., (1995). “*The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*”, Oxford University Press.
18. Rupali Shah. (2013). *Practical knowledge management*. New Delhi: Horizon Press.
19. Sanchez, R. (1996). *Strategic Learning and Knowledge Management*. Chichester: Wiley.
20. Srikantaiah, T. K., Koenig, M., (2000). “*Knowledge Management for the Information Professional*” Information Today, Inc.

**Online Sources**

21. Knowledge codification(2017).[video] retrievable from <https://www.youtube.com/watch?v=CLxS-jX28mA>
22. Knowledge management system (2017).[video] retrievable from <https://www.youtube.com/watch?v=1K3mUa0-1Js>
23. Knowledge Management. [pdf]. Retrievable, from [https://www.tutorialspoint.com/knowledge\\_management/knowledge\\_management\\_tutorial.pdf](https://www.tutorialspoint.com/knowledge_management/knowledge_management_tutorial.pdf).
24. Knowledge Management.(2020).[video] Retrievable from <https://www.youtube.com/watch?v=Zaffxj5f5hg>
25. Ponzi, Leonard., & Koenig, M.E.D. (2002). Knowledge Management: Another Management Fad?" Information Research, 8(1). Retrievable from <http://informationr.net/ir/8-1/paper145.html>

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS3 E06 - DIGITAL LIBRARIES****4 Credits****Course Outcome:**

- CO1:** Articulate and exemplify the concept of digital library (Understand)  
**CO2:** Enlighten with different digital library resources (Understand)  
**CO3:** Familiarize with the processes involved in the digital library creation and use (Understand)  
**CO4:** Understand the rights and issues related to digital information  
**CO5:** Understand the design and development of digital library with GSDL

**Module 1 Introduction to Digital Libraries**

Digital library: definition, scope and characteristics  
Major digital library initiatives in the world and in India  
Design and organization of digital libraries - architecture, interoperability, and compatibility  
User interfaces, protocols and standards

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the concept and architecture of digital library (Understand)  
**MO1:** Evaluate the major digital library initiatives in India and world (Evaluate)

**Module 2 Digital Library - Resources**

Digital collection - nature and scope  
Digital objects, files and file formats  
Identification of, accessing, processing, storage, delivery and use of digital resources  
Digital library user - assessment of user behaviour and needs

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Understand the nature, scope and formats of digital resources (Understand)  
**MO2:** Evaluate digital library user's needs and behaviours (Evaluate)

**Module 3 Digital Library-Creation and Use**

Digital library creation - prerequisites; content development  
Digitization - scanning, OCRing and conversion to PDF  
Information access, user behaviour and Interaction  
Metadata development  
Digital preservation and conservation - archiving  
Security and preservation issues



**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand the process involved in digital library creation (Understand)

**MO3:** Evaluate the techniques used in digital preservation and conservation (Evaluate)

**Module 4 Digital Library Technologies**

Digital representation and compression

Access control and DRM

Network platforms and server management

Digital information - Intellectual property issues

Rights management

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand various digital library technologies, and intellectual property issues (Understand)

**Module 5 Digital Library Software**

Open source software – GSDL

Design and architecture of GSDL

Digital library case studies

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand the design and development of digital library with GSDL (Understand)

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

**Learning Resources**

1. Andrews, J. (2010). *Digital libraries*. London: Ashgate.
2. Cornish, G. P. (1990). *Copyright interpreting the law for libraries and archives*. London: Library Association.
3. Dahl, M.V., Banerjee, K., & Spalti, M. (2006). *Digital libraries: Integrating content and systems*. London: Chandos.
4. Fenner, A. (Ed.). (2005). *Managing digital resources in libraries*. New York: Haworth.
5. Gopal, K. (2000). *Digital libraries in electronic information era*. New Delhi: Authors Press.
6. Lesk, M. (1996). *Understanding digital libraries* (2nd ed.). San Francisco: Morgan Kaufmann.
7. Pitkin, G. M. (Ed.). (1996). *The National electronic library: A guide to the future for library managers*. London: Greenwood Press.
8. Tedd, L.A., & Large, A. (2005). *Digital libraries: Principles and practice in a global environment*. Munchen, Germany: K. G. Saur.
9. Arms, W.Y. (2005). *Digital libraries*. New Delhi: Ann Peterson-kemp.
10. Witten, I.H., & Bainbridge, D. (2005). *How to build a digital library*. Amsterdam: Morgan Kaufmann.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

## LIS3 E07 - ORGANIZING DIGITAL INFORMATION RESOURCES – PRACTICE 4 Credits

### Course Outcome

**CO1:** Understand the Dublin Core metadata in detail (Understand)

**CO2:** Understand the creation of metadata according to Dublin Core schema

**Module**      Creating metadata records according Dublin Core and other specialized metadata, standards for a variety of electronic resources. Use of online ontologies for subject indexing

#### **Module Outcome:**

*After completion of this module, the student should be able to:*

**MO:** Identify the types of metadata (Analyse)

**MO:** Understand the creation of metadata according to Dublin Core schema (Understand)

### Activities, Learning Resources and Assessment

#### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Demonstration / Hands on training

#### Learning Resources

1. Faiez, G. & Wassim, J. (2010). *Ontology theory, management and design advanced tools and models*. Hershey Information Science.
2. Lubas, R.L., Jackson, A.S & Schneider, I. (2013). *Metadata manual: a practical workbook*. Oxford: Chandos Pub.
3. Robert, M.C. (2007). *Ontology and the semantic web*. Washington DC, IOS Press.
4. Stephen, M.J. (2011). *Metadata for digital collections a how-to-do-it manual*. London Facet.

#### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS4 E08 - TECHNICAL COMMUNICATION****4 Credits****Course Outcome:**

- CO1:** Gain knowledge about the communication process and different types of writing
- CO2:** Diagnose audience recognition and involvement
- CO3:** Create layout and presentation of information
- CO4:** Identify common problems spelling, grammar, usage and punctuation
- CO5:** Gain awareness about style manuals, proof reading and reference management

**Module 1 Communication Process**

Types: verbal, non-verbal, formal, informal

Types of writing

Technical writing: principles, characteristics

Language as a medium for communication, readability

Audience Research, Audience Recognition and Involvement

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO1:** Explain verbal and non-verbal communication (Understand)

**MO1:** Describe the basic concepts and types of writing (Understand)

**MO1:** Gain awareness about technical writing, its process, characteristic and principles (Understand)

**MO1:** Evaluate audience recognition and involvement (Evaluate)

**Module 2 Organization, Layout and Presentation of Information**

Monographs

Learned papers

Popular articles

Technical reports

Project proposals

Book design and page layout

Forms of electronic communication

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO2:** Achieve familiarity in layout and structure of reports, articles, proposals, books, etc (Understand)

**Module 3 Repackaging and Consolidation**

Repackaging of information, functions of information

repackaging

Trend reports, Reviews, House journals  
 State-of- the art reports, Digests  
 Abstracts – types, preparation, guidelines

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand how to repackage and consolidate information (Understand)

**Module 4 Mechanics of Writing**

Common problems in spelling, grammar, usage and punctuation  
 Writing process, paragraph organization, writing style  
 Technical, creative and scientific writing  
 Tools of technical writing: publishing tools, graphical tools, web tools  
 Steps towards good writing: Prewrite, write, proof read and edit, copy editing and rewrite  
 Scholarly publishing platforms  
 Publication ethics

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand the mechanics of writing (Understand)

**MO4:** Examine the various problems in spelling, grammar, usage and punctuation (Analyse)

**MO4:** Describe copy editing; proof reading; reference management (Understand)

**Module 5 Oral Presentation**

Analysis of speakers and speaking styles  
 The parts of a presentation: introduction, body and conclusion  
 Practice with common presentation types  
 Tips for the use of effective visual aids  
 Personal presentation: Seminar, interview, story telling  
 Group presentation: Group discussion, brainstorming

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Analyse different types of speaking styles (Understand)

**MO5:** Examine the different parts of a presentation (Analyse)

## Activities, Learning Resources and Assessment

### Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

### Learning Resources

1. Anderson P. V. (2007). *Technical Communication: A Reader centered approach* (6th ed.). Australia: Cengage Learning.
2. Ashraf Rizvi, M. (2001). *Effective technical communication*. New Delhi: Tata McGraw Hill.
3. Day, R.A., & Gastel, B. (2012). *How to write and publish a scientific paper* (7th ed.). Cambridge, UK: Cambridge University Press.
4. Gerson, S.J., & Gerson, S. M. (2000). *Technical Writing: Process and Product*. (3rd ed.). New Delhi: Pearson Education.
5. Gibaldi, J.(2004). *MLA Handbook of writers and research papers* (6<sup>th</sup> ed.). New Delhi: Affiliated East West.
6. Raman, M., & Sharma, S. (2012).*Technical communication: Principles and practices* (2nd ed.). New Delhi: Oxford University Press.
7. Sathish S. (2010). *Recent developments in technical writing*. New Delhi: Arise Publications.
8. Sunil, G. (2004). *Essentials in technical communication*. Mumbai: Himalaya Publishing House.
9. Devarajan, G. (2012). *Technical Communication for Information Managers*. New Delhi: ESS ESS Publications.
10. Sajitha, J. (2013). *Technical Writing*. Mumbai: Himalaya Publishing House.

### Assessment

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

**LIS4 E09 - PERSONALITY DEVELOPMENT & COMMUNICATION SKILLS****4 Credits****Course Outcome:**

- CO1:** Gain knowledge to personality development(Understand)
- CO2:** Flourish effective communication skills
- CO3:** Develop attractive technical writing skills
- CO4:** Grasp different techniques of non-verbal communication
- CO5:** Learn how to conduct meetings and negotiation

**Module 1 Understanding Self**

Personality-definition, elements, types and determinants  
 Understanding personal strengths and weakness  
 Personal grooming-personal hygiene and social effectiveness  
 Emotional intelligence and competence

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the elements and determinants of personality (Understand)
- MO1:** Recognize personal strengths and weakness(Understand)

**Module 2 Communication Skills**

Effective speaking  
 Improving vocabulary and grammar  
 Elements of effective speaking  
 Types of speaking - briefings, teaching lectures, speeches and others  
 Understanding the audience, audience analysis  
 subject gathering materials, evaluating materials  
 Presenting a talk, and other process

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Develop an effective speaking skill (Understand)
- MO2:** Understand the audience (Evaluate)

**Module 3 Writing skills**

Principles of presentation of ideas  
 Techniques, skills and tools for effective writing  
 Writing process, paragraph organization, writing style  
 Types of writing – technical, creative and scientific writing

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand the techniques, tools and skills needed for effective writing (Understand)

**MO3:** Discuss the process involved in technical writing (Understand)

**MO3:** Distinguish different types of writing (Evaluate)

**Module 4 Non Verbal Communication**

Types of nonverbal communication, KOPPACT

Body language

Leadership and working in teams

Working collaboratively

Working and sharing knowledge and experience

Team development

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Establish effective non-verbal communication skills (Understand)

**Module 5 Meetings and Negotiation Skills**

Different types of meetings

Conducting a meeting

Getting the best out of negotiation

Negotiation strategies

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Distinguish different types of meetings (Understand)

**MO5:** Learn how to conduct an effective meeting and negotiation (Understand)

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions



**Learning Resources**

1. Barker, Alan (2002). *Improve your communication skills*. Kogan
2. Berger, A. A. (1993). *Improving Writing Skills: Memos, Letters, Reports, and Proposals*. SAGE Publications.
3. Brad Jackson, Collinson, David L. Collinson, Keith Grint. (1997). *Leadership*. Oxford University Press.
4. Cloninger, Susan C. (1996). *Personality Description: Dynamics and Development*. W.H. Freeman And Company.
5. Kouzes, James M, Posner, Barry Z. *Learning leadership: the five fundamentals of becoming an exemplary leader*. Vanity Books International
6. Krishna Mohan and Meera Banerji. (1997). *Developing communication skills*. Macmillan India Limited.
7. Mary L. Connerley, Paul B. Pedersen. (2005). *Leadership in a diverse and multicultural environment*. Sage Publications.
8. McRae, Brad (1998). *Negotiating and influencing skills*. Sage Publications
9. Nahavandi, Afsanesh (2006). *Art and science of leadership*. Pearson.
10. Wright, Chrissie. (1999). *Handbook of practical communication skills*. Jaico Publishing House.

**Assessment**

50 percent continuous / formative assessment

50 percent end-semester/summative assessment: 3 hour written exam

## AUDIT COURSES

### ABILITY ENHANCEMENT COURSE (AEC)

#### LIS1 A01 – SOFT SKILLS

**2 Credits**

**Course Outcome:**

- CO1:** Understand the significance and categories of soft skills (Understand)
- CO2:** Understand types and structure of communication (Understand)
- CO3:** Understand stress and how to manage stress (Understand)
- CO4:** Understand time management, negotiation, problem solving and emotional intelligence skills (Understand)

**Module 1 Soft Skills –An Introduction**

Definition and significance of soft skills  
 Importance and measurement of soft skill development  
 Categories of soft skills - corporate skills, employability skills and life skills  
 Personality development

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO1:** Understand the significance, measurement and categories of soft skills (Understand)

**Module 2 Communication Skills**

Types of communication – verbal and non-verbal communication  
 Interpersonal communication, team communication  
 Types of oral communication; structure of an oral presentation;  
 body language; use of visual aids  
 Telephonic communication skills  
 Listening skills; types of listening -- passive listening,  
 active listening, reflective listening  
 Group discussion and interview skills

**Module Outcome:**

*After completion of this module, the student should be able to:*

- MO2:** Describe the different types of communication (Understand)
- MO2:** Understand different skills needed for communication (Understand)

**Module 3 Stress Management**

Understanding stress; types of stress  
 Symptoms of work stress

Personality and stress  
Stress management techniques

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO3:** Understand stress, symptoms of stress and its types (Understand)

**MO3:** Understand how to manage stress (Understand)

**Module 4 Other Management Skills**

Time management, techniques of time management

Teamwork and leadership skills

Negotiation skills: types of negotiation, stages of negotiation

Decision making and problem solving skills

Emotional Intelligence skills

**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO4:** Understand time management, negotiation, problem solving and emotional intelligence skills (Understand)

**Activities, Learning Resources and Assessment**

**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

**Learning Resources**

1. Banerji, M., Mohan, K. (2000). *Developing Communication Skills*. Macmillan India Limited.
2. Bryson, J. (2018). *Effective Library and Information Centre Management*. Routledge.
3. Jain, A. K., Sheikh, A. M. (2008). *Professional Communication Skills*. S. Chand Limited.
4. Kumar, P.S.G. (2003) *Management of library and information centres*. B.R.publishing Corporation.
5. Kumar, K. J. (2000). *Mass Communication in India (4<sup>th</sup> ed.)*. India: Jaico Publishing House.
6. Lahiri, R. (2001). Professionalism and Research in Library and Information Science. 1999. *Herald of Library Science*, 40(3/4), 263.
7. Mahapatra, R.K. (2010). *Capacity building and restructuring of library and*

*information centres*. Ess Ess publication.

8. Mehta, D. S. (1980). *Mass Communication and Journalism in India*. Allied Publishers Private Limited.
9. Mitra, B. (2012). *Personality Development and Soft Skills*. Oxford University Press.
10. Redley, Martin. (2019, June 26 ). Un employability and the lack of skills: How to be job- ready. *Hindustan times*.

### **Assessment**

100 percent end-semester/summative assessment: 2 hour written exam.

**PROFESSIONAL COMPETENCY COURSE (PCC)****LIS2 A02 – INFORMATION TECHNOLOGY COMPETENCY - PRACTICE****2 Credits****Course Outcome:**

- CO1:** Understand how to use and install Windows and Linux operating systems  
**CO2:** Learn to use MS Word, Open Office Writer, MS Access, MS Excel and MS Power Point software (Apply)  
**CO3:** Understand and use various internet tools, services and utilities (Understand)

**Module 1** Operating system – Windows; Linux**Module Outcome:***After completion of this module, the student should be able to:*

**MO1:** Understand how to install and use Windows and Linux operating systems (Apply)

**Module 2** Word processing – MS Word; Open Office Writer**Module Outcome:***After completion of this module, the student should be able to:*

**MO2:** Learn to install and use MS Word and Open Office Writer software (Apply)

**Module 3** DBMS – MS Access**Module Outcome:***After completion of this module, the student should be able to:*

**MO3:** Learn to install and use MS Access software (Apply)

**Module 4** Spreadsheet – MS Excel; Presentation – MS Power Point**Module Outcome:***After completion of this module, the student should be able to:*

**MO4:** Learn to use MS Excel and MS Power Point software (Apply)

**Module 5** Internet tools / services / utilities**Module Outcome:**

*After completion of this module, the student should be able to:*

**MO5:** Understand and use various internet tools, services and utilities (Apply)

**Activities, Learning Resources and Assessment****Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

**Learning Resources**

1. Aityan, S. K. (2020). *Practical Guide to PC and Microsoft Office 365: Word, Excel, PowerPoint*.
2. Alexander, M., Walkenbach, J., Kusleika, R. (2018). *Excel 2019 Bible*. Wiley.
3. Borgen, J., Graham, M. J. (2017). *Google Tools Meets Middle School*. Sage Publications.
4. Burke, D., Calabria, J. (1997). *Microsoft PowerPoint 97 Exam Guide*. QUE.
5. Godbole, A. S., Kahate, A. (2013). *Web Technologies: TCP/IP, Web/Java Programming, and Cloud Computing*. McGraw Hill Education (India).
6. Haff, G. (2021). *How Open Source Ate Software: Understand the Open Source Movement and So Much More*. Apress.
7. Lambert, J. (2019). *Microsoft Word 2019 Step by Step*. Pearson Education.
8. Lee, W. (2009). *Windows 7: Up and Running: A Quick, Hands-on Introduction*. O'Reilly Media.
9. Livers, A. F. (2008). *Using Microsoft Office to Enhance Student Learning*. Sage Publications.
10. Noelle, R. (2010). *Microsoft Word 2010 in Simple Steps*. Pearson.

**Assessment**

100 percent end-semester/summative assessment: 2 hour practical exam.

Scheme and Syllabus of  
**Master of Library and Information Science**  
**(M.Lib.I.Sc)**

(Choice Based Credit Semester System with Learning Outcomes-Based Curriculum Framework effective from 2022 admission onwards)