ಮಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ

MANGALORE UNIVERSITY

(Accredited by NAAC Grade)

ಕ್ರಮಾಂಕ/No. : MU/ACC/CR.3/2025-26/A2

ಕುಲಸಚಿವರಕಛೇರಿ
ಮಂಗಳಗಂಗೋತ್ರಿ – 574 199
Office of the Registrar
Mangalagangothri – 574 199
ದಿನಾಂಕ/Date:31.07.2025

NOTIFICATION

Sub: Revised syllabus of M.Lib.I.Sc. Programme.

Ref: Academic Council approval vide agenda No.:ಎಸಿಸಿ:ಶೈ.ಮ.ಸಾ.ಸ.1:1 (2025-26) dtd 18.07.2025.

*****

The syllabus of Master of Library and Information Science [M.Lib.I.Sc.] Programme which has been approved by the Academic Council at its meeting held on 18.07.2025 is hereby notified for implementation with effect from the academic year 2025-26 and onwards.

Copy of the Syllabus shall be downloaded from the University Website (www.mangaloreuniversity.ac.in)

REGISTRAR

To,

1. The Registrar (Evaluation), Mangalore University.
2. The Chairman, PG BOS in Library and Information Science, Mangalore University, Mangalagangorhi.
3. The Chairperson, P.G. Department of Library and Information Science, Mangalore University, Mangalagangothri.
4. The Asst. Registrar (ACC), O/o the Registrar, Mangalore University.
5. The Director, DUIMS, Mangalore University – with a request to publish in the website.
6. Guard File.

MANGALORE UNIVERSITY

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

Syllabus

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

(Two Years – Four Semesters)

Under
Choice Based Credit System (CBCS)

From the Academic Year 2025 - 2026 Onwards

Program Outcomes (PO)

PO01 Disciplinary knowledge and mastery: Demonstrate comprehensive knowledge and understanding of major concepts, principles, theories, and laws, related with library and information science including other areas such as types of libraries, knowledge management, information sources and services, their conservation, preservation, archiving, and ICT for various library operations;

PO02 Critical thinking and analysis: Capable to critically think and analyse for solving various problems pertaining to effective evaluation, organization, retrieval, and dissemination of information resources, enabling them to make informed decisions and contribute to the advancement of library and information practices;

PO03 Effective communication: Effectively communicate and meet the diverse information needs through library network, resource sharing, consortia approach and provide various information products, functions and services through public relation and extension activities;

PO04 Research based practices: Apply the research methodologies and evidence based practices by adopting appropriate research tools to investigate user needs, information related issues, evaluate library services, information systems, and contributing knowledge to the LIS field and support informed decision making;

PO05 Digital skills: Competent of using Internet, Web, and digital technology in managing housekeeping operations, information retrieval, standardisation, digital preservation, and adopting AI based cutting edge tools and technologies for finding ways to improve services;

PO06 Individual and team work: Capable to communicate, cooperate, and collaborate effectively as an individual and as a member or leader in teams at different levels of management and promote professional growth;

PO07 Ethical awareness: Identify the ethical and legal issues in knowledge management and apply ethical principles, moral values, and best practices to uphold the nobility of the profession;

PO08 Professional development: Enhance the managerial skill and competence to ensure their career progression, actively participating and contributing to professional associations/organisations and uphold the professional status in the field;

PO09 **Life-long learning**: Recognize the need for, have the preparation and ability to engage in independent and life-long learning, staying abreast of current trends and emerging technologies in the field of library and information science;

PO10 **Continuing education or employment**: Exposure to practical experience in real setting helps to pursue further academic studies in library and information science or field related to it, including Ph.D. programs and many employment opportunities in academic, research centres, government, semi- government and private sector libraries;

Programme Specific Outcome (PSO)

PSO1 Understand the basic concept of library and information science profession.

PSO2 Integrate as a part of the university efforts in democratizing access to information by training the graduates from different backgrounds to become proactive knowledge workers in the process of collecting, organizing, consolidating, repackaging and disseminating the knowledge/information for social transformation, scientific and technological growth and economic prosperity.

PSO3 Preparing the manpower to be dynamic social change agents in managing, monitoring and disseminating the information by utilizing the ICT and related technologies.

PSO4 Restructuring and reviewing LIS curriculum to cope up with changing socio-economic, cultural and technological environment.

PSO5 Create an awareness on evolution of the knowledge society and its role in social transformation.

PSO6 Analyse the complex issues of the access and use of knowledge and its productive utility in social development.

PSO7 Promote the use of new technologies in teaching and research.

PSO8 Promote leadership qualities and inculcate right values among students by encouraging ethical practice.

PSO9 Knowledge and exposure to research based practices through the application of data, information, and research literacy.

Programme Structure of M.Lib.I.Sc.

FIRST SEMESTER

Course code	Title of the course	Theory Hours/ Week	Practical Hours/ Week	Duration of exams (Hrs)	Marks & Credits			
					IA	Exam	Total	Credits
Hard core								
25LSH401	Foundations of library and information science	4	-	3	30	70	100	4
25LSH402	Information sources	4	-	3	30	70	100	4
25LSH403	Knowledge organization: Classification	4	-	3	30	70	100	4
25LSH404	Information processing: Cataloguing	4	-	3	30	70	100	4
Soft core								
25LSP405	Knowledge organization: Classification (Practice)	-	4	3	30	70	100	4
25LSP406	Information and Communication Technology (Practice)	-	4	3	30	70	100	4
	Total	16	08	18	180	420	600	24

SECOND SEMESTER

Course code	Title of the course	Theory Hours/ Week	Practical Hours/ Week	Duration of exams (Hrs)	Marks & Credits			
					IA	Exam	Total	Credits
Hard core								
25LSH451	Management of library and information centres	4	-	3	30	70	100	4
25LSH452	Library automation	4	-	3	30	70	100	4
25LSP453	Information processing: Cataloguing (Practice)	-	4	3	30	70	100	4
Soft core								
25LSP454	Library automation (Practice)	-	4	3	30	70	100	4
25LSS455	Conservation and preservation of information resources	4	-	3	30	70	100	4
	OR							
25LSS456	Information literacy							
Open elective								
25LSE457	Electronic information resources	3	-	3	30	70	100	3*
	Total	15	08	18	180	420	600	23

* Not included for CGPA.

THIRD SEMESTER

Course code	Title of the course	Theory Hours/ Week	Practical Hours/ Week	Duration of exams (Hrs)	Marks & Credits			
					IA	Exam	Total	Credits
Hard core								
25LSH501	Information retrieval	4	-	3	30	70	100	4
25LSH502	Research methodology in LIS	4	-	3	30	70	100	4
25LSH503	Web technologies and tools	4	-	3	30	70	100	4
Soft core								
25LSP504	Web technologies and tools (Practice)	-	4	3	30	70	100	4
25LSP505	Research methodology in LIS (Practice)	-	4	3	30	70	100	4
	OR							
25LSP506	Technical writing (Practice)							
Open elective								
25LSE507	Academic writing and publishing	3	-	3	30	70	100	3*
	Total	15	08	18	180	420	600	23

* Not included for CGPA.

FOURTH SEMESTER

Course code	Title of the course	Theory Hours/ Week	Practical Hours/ Week	Duration of exams (Hrs)	Marks & Credits			
					IA	Exam	Total	Credits
Hard core								
25LSH551	Information systems and services	4	-	3	30	70	100	4
25LSH552	Digital libraries	4	-	3	30	70	100	4
25LSP553	Digital libraries (Practice)	-	4	3	30	70	100	4
25LSP554	Information sources (Practice)	-	4	3	30	70	100	4
Soft core								
25LSP555	Project work and viva voce	-	4	-	30	70	100	3
25LSP556	Practical experience and study tour / Internship	-	4	--	30	70	100	3
	Total	8	16	12	180	420	600	22

Total credits of all the semesters

First semester	24
Second semester	23
Third semester	23
Fourth semester	22
Total	**92**

Cores	Credits	%
Hard Core	52	56.5
Soft core	34	37.0
Open Elective	06	06.5
Total	**92**	**100.0**

FIRST SEMESTER

Hard core

25LSH401: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

Learning Objectives (LO):

- To introduce the students to the basics of library and information science;
- To identify the types of libraries and understand the functions, activities, and services;
- To make students aware of Dr. S. R. Ranganathan's life and contributions to library and information science.
- To understand the fundamental laws, legislations, acts, and guidelines related to library science;
- To understand the importance of library associations/organizations/promoters and their role in lifelong learning;
- To educate students about growth, development of libraries as well as library professional ethics;
- To train students for a professional career in library and information services.

Course Outcome (CO):

CO1 Acquire the knowledge of Dr. S R Ranganathan's life and contributions, as well as growth and role of different types of libraries in the development of society;

CO2 Gain knowledge about different library legislation, acts, IPR, and copyright;

CO3 Understand the activities, roles, and responsibilities of different professional associations in LIS;

CO4 Knowledge of public relations and extension activities of library also upholding the ethics, skills, and competencies of LIS profession.

Unit 1	:	**Historical development and five laws of library science:** - Historical development of libraries, with special reference to Karnataka; - Role of libraries in social, cultural, educational and scientific technical development;	12hrs

		- Types of libraries: their functions and services; - Information: Data, information, knowledge, and wisdom - concept, meaning, and features; Information science; – Five laws of library science**: Dr. S R Ranganathan: Life and contributions; implications of five laws in library and information science; relevance of five laws in digital era.**	
Unit 2	**:**	Library legislation: - Library legislation: Need, purpose and features; - Library legislation in India: Problems and prospects; - Public library Acts in India - with special reference to Karnataka; - Press and Registration Act, Delivery of Books and Newspaper (Public libraries) Act, 1954 and 1956; - Intellectual Property Rights, Copyright Act, and Right to Information Act.	12hrs
Unit 3	:	**Librarianship, LIS education, and public relations**: – Attributes of a profession; – Librarianship as a profession: Skills and competencies; – **Women librarianship: Issues and challenges;** – **Professional ethics and qualities;** – LIS education and research; – **National education policy 2020;** - Public relations and extension activities**:** Concept, definition, and scope; publicity and extension activities; **role of social media in library extension services.**	12hrs
Unit 4	**:**	Professional associations: – Objectives, functions, and role of professional associations in library development; – State library association – KALA; – National library associations - ILA, IATLIS, IASLIC; – International library associations – IFLA, ALA, LA, **CILIP**; - Promoters of library and information services - RRRLF, **UGC**, and UNESCO.	12hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓		✓	✓				✓	✓	
CO2	✓						✓			
CO3								✓		
CO4			✓	✓			✓			

References:

Bhagwatiben, & Prajapathi, G. (2013). *Library and information science*. New Delhi: Discovery publishing.

Burahohan, A. (2000). *Various aspects of librarianship and information science*. New Delhi: Ess Ess.

Chapman, E.A. & Lynden, F.C. (2000). *Advances in librarianship*. SanDiego: Academic Press.

Deshpande, K. S. (1986). *University library system in India*. New Delhi: Sterling publishers.

Dhiman, A. K., & Rani, Y. (2005). *Learn library and society*. New Delhi: Ess-Ess publications.

Greer, R. Grover, R. & Fowler, S. (2013). *Introduction to the library and information professions.* Exeter: Libraries Unlimited.

Isaac, K. A. (2004). *Library legislation in India*. New Delhi: Ess Ess publications.

Isaac, K.A. (2004). *Library legislation in India: A critical and comparative study of state Library acts book description*. New Delhi: Ess Ess publications.

Kahan, M. S. (1996). *Principles and prospective of copy right.* New Delhi: Sarup and Sons.

Kaushik, P. (2006). *Foundations of library and information science*. New Delhi: Anmol publisher.

Khanna, J. K. (1984). *Fundamentals of library organization*. Kurukshetra: Research publication.

Kumar, P. S. G.(2000). *Indian Library Chronology*. Bombay: Allied publisher.

Kumar, P.S.G. (2003). *Foundations of library and information science*. New Delhi: B.R. publishing co.

Mishra, P. N. (2010). *Principles of library and information science*. New Delhi: Alfa publication.

Nath, B., & Pandey, R. (2013). *Foundations of library and information science*. New Delhi: Axis books.

Patel, J. & Kumar, K. (2004). *Libraries and librarianship in India*. London: Greenwood press.

Praiapati, R. S. (2013). *Foundations of library and information science*. New Delhi: Discovery publishing house Pvt. Ltd.

Prasher, R. G. (2003). *Information and its communication*. Ludhiana: Medallion press.

Raju, A. A. N. (2012). *Facets of library and information science*. New Delhi: Ess-Ess publications.

Ranganathan, S. R.(2006). *The five laws of library science*. Bangalore: Ess Ess publications.

Richard, R. (2010). *Foundations of library and information science*. New York: DBS Imprints.

Rokade, S. M. (2016). *Foundations of library and information science*. New Delhi: Studera press.

Rout, R.K. Ed. (1999). *Library legislation in India*. New Delhi: Relience.

Sharma, D. (2014). *Information technology, Ranganathan's five laws & University libraries*. Lambert: Academic publishing.

Sharma, J. B. (1996). *Elements of library science*. New Delhi: Kanishka publishers distributors.

Singh, J. (2003). *Information democracy and South Asia promises and perils of the web*. Ludhiana: Medallion press.

Singh, S. K. (2013.). *Historical foundations of library and information science*. New Delhi: Anmol publication Pvt. Ltd.

Singh, S & Singh, S. (2002). *Library, information and science and society*. New Delhi: Ess Ess publications.

Sridevi, & Vyas, S. (2005). *Library and society*: Shree publishers and distributors.

Srivastava, H. K. (2011). *Foundation of library and information science*. New Delhi: Mohith publications.

Varma, S. (2005). *Foundation of library & information science*. New Delhi: Shree publishers.

Vashisnth, C. P., & Satija, M. P. (2004). *Library and information profession in India*. New Delhi: B.R. publishing corporation.

Venkatappaiah, V. (2005). *Foundations of library and information science*. Hyderabad: Neelkamal publications Pvt. Ltd.

25LSH402: INFORMATION SOURCES

Learning Objectives (LO):

- To understand the concept of information sources;
- To study documentary and non-documentary sources of information;
- To understand the primary, secondary, and tertiary information sources with suitable examples;
- To familiarize students with print and electronic versions of information sources;
- To evaluate the different types of information resources;
- To understand the preservation and conservation of different information sources;
- To understand hazards to library materials and their preservation.

Course Outcome (CO):

CO1 Understand the basic concept, characteristics, and functions of information sources;

CO2 Know the categories of information sources like documentary and non–documentary;

CO3 Gain knowledge of primary, secondary and tertiary sources of information;

CO4 Clearly understand the major print and electronic resources and their criteria for evaluation;

Unit 1	:	Information sources: – Meaning, definition, importance, characteristics, functions; – Categories and types of information sources; – Criteria for evaluation of information sources; – Primary sources: Periodicals, research reports, conference proceedings, official publications, patents, standards and **specifications**, trade literature, and theses and dissertations.	12hrs
Unit 2	:	**Secondary sources and tertiary sources**: - Indexing periodicals, abstracting periodicals, bibliographies, treatises, monographs, text books, handbooks and manuals; - Reference sources: Dictionaries, encyclopedias, biographical sources, geographical sources, statistical sources; - Yearbooks, almanacs, directories, union catalogues, bibliography of bibliographies.	12hrs

Unit 3	:	**Non-documentary sources of information:** - **Human sources: Technological gatekeepers, invisible colleges, consultants, resource persons, common persons;** - **Institutional sources: Government ministries, and departments, R & D organizations, learned societies, publishing houses, archives, databanks, information analysis centers, referral centers, institutional websites.**	12hrs
Unit 4	**:**	Electronic information resources: - Concept, characteristics, and types; - E-journals, e-books, e-encyclopaedias, e-theses, e-newspapers, online dictionaries, **online databases, Internet sources, list serves, subject gateways;** - **E-learning resources: Concept of MOOC, e-PGPathshala, e-Adhyayan, Swayam, Swayam Prabha, Virtual Labs, National Digital Library of India;** - **Open access resources: Concept, types, features, open access Databases: DOAJ, DOAB, Open DOAR;** - Advantages and disadvantages of electronic information sources.	12hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓	✓	✓							
CO2	✓	✓								
CO3	✓	✓								
CO4	✓	✓	✓							

References:

Adhyayana, E. (2025) Information sources, system and services. Retrieved 15th May 2025 from https://ebooks.inflibnet.ac.in/lisp4/chapter/chapter-1/

Chenny, F.N & Williams W.J. (1980). *Fundamental reference sources*. Ed2., Chicago: ALA.

Fjallbrant, N. & Stevension, M. (1970). *User education in libraries.* London: Clive-Bingley.

Grogan, D.J. (1982). *Science and technology: An introduction to the literature*. Ed4. London: Clive-Bingley.

Guha, B. (1983). *Documentation and information: services techniques and system*. Calcutta: World Press Pvt ltd.

Kanna, J. K. (2000). *Documentation and information, services systems and techniques*. Agra: Y K publishers.

Katz ,W.A(1992) *Introduction to reference work.* New York: Mc-Graw Hill

Krishan kumar. (2004). *Reference service* (5th Rev ed.). New Delhi: Vikas publishing house.

Kumar, P. S. G. (2004). *Information sources and services: Curriculum series in library &information science.* New Delhi: B R publications.

Kumar, P. S. G. (2004). *Information sources and services: theory and practice*. Delhi: B R publishing.

Lambart, J & et al (1991). *How to find information in science and technology.* London: Library association.

NIOS. (2025). *Overview of information sources*. https://nios.ac.in/media/documents/SrSecLibrary/LCh-005.pdf

Navalani, K., & Trikha, S. (1999). *Library and information services*. Jaipur: Rawat publishing.

Prasher, R.G. (2003). *Indian libraries in IT Environment.* Ludhiana: Medallion press.

Prasher, R.G. (2003*). Information and its communication.* Ludhiana: Medallion press.

Ranganathan, S. R. (1933). *Reference service.* Bangalore: SRELS.

Rogers, R.(1993*) Teaching information skills: A review of the research and its impact on education.* London: Bowker-saur.

Sharma, J S & Grover, D. R. (1992). *Reference service and sources.* Chicago: ALA.

Singh, G. (2013). *Information sources, services and systems*. Delhi: PHI Learning Pvt. Ltd.

Singh, J (2003) *Information democracy and South Asia Promises and perils of the web.* Ludhiana: Medallion Press.

Sing, S. (1997) *International manual of reference and information sources.* New Delhi: Beacon Books.

Subramanyam, K. (1981). Scientific and technical information resources. New York: Marcel Dekker.

Velaga, V. (2005). *Information sources and services*. Hyderabad: Neelkamal Publications Pvt Ltd.

25LSH403: KNOWLEDGE ORGANIZATION: CLASSIFICATION

Learning Objectives (LO):

- To introduce the students to the library classification;
- To understand the importance of library classification in organization of knowledge;
- To highlight the importance of canons, laws, and principles in the design of classification schemes;
- To understand the formation of subjects in the universe of knowledge and be acquainted with major schemes of classification;
- To understand the fundamental categories, rounds, and levels;
- To know the different schemes of classification and their features;
- To gain the knowledge of recent trends in library classification.

Course Outcome (CO):

CO1 Clear understanding of the theories and principles of library classification;

CO2 Knowledge of using different schemes of classification;

CO3 Clear understanding of Postulation approach to library classification;

CO4 Understating of recent trends and mode of classifying different resources.

Unit 1	:	Library classification: – Definition, meaning, objectives, purpose and functions; – The general theory of classification: Descriptive and dynamic; – Theory of knowledge classification and book classification; – Types of library classification schemes: Enumerative and faceted; – Universe of knowledge: Concept, meaning, structure, and attributes; types of the subject: Simple, compound, and complex; modes of formation of subjects.	12hrs
Unit 2		**Schemes of classification** - **History and development, features, structure, and applications of Colon Classification, Dewey Decimal Classification, and Universal Decimal Classification;** - Universal knowledge as mapped in CC, DDC, and UDC**.**	12hrs

Unit 3	:	**Postulation approach to classification**: - Planes of work and canons: Idea, verbal and notational plane; - Notational system: Meaning and definition, need, functions, qualities, and types, call number, mnemonics; – Hospitality in array and chain; – Laws and principles of library classification**:** Basic laws and fundamental categories; facet analysis and facet sequence; phase relations and common isolates; rounds and levels, devices.	12hrs
Unit 4	:	**Current trends in library classification** - **Modern knowledge organization systems: concept, ontology, taxonomies, folksonomy, clustering, categories;** - **Automatic classification research at OCLC; Case studies: GERHARD, SCORPIO, DESIRE, CORA, OASIS, OWL, SKOS;** - **Knowledge organisations: ISKO, CRG, and EDUG;** - **Recent developments in classification schemes: Web Dewey, UDC online, artificial intelligent tools.**	12hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓									
CO3	✓									
CO4	✓				✓					

References:

Beghtol, W. B. (2004). *Knowledge organization and classification in international information* retrieval. London: Routledge.

Chaturvedi, D. D. (2003). *Library classification: a theoretical analysis*. New Delhi: Ess Ess publications.

Dhawan, K. S. (2001). *Readings in library science: library classification systems*. New Delhi: Commonwealth.

Dhyani, P. (2001). *Library classification*. New Delhi: Ess Ess publications.

Joint, S. C. (2015) *RDA: Resource description and access*. London: Facet publishing.

Kaushik, P. (2006). *Library classification*. New Delhi: Anmol publications Pvt. Ltd.

Kumar, K. (2005). *Theory of library classification*. New Delhi: Vikas.

Kumar, P. S. G. (2003). *Knowledge organization, information processing and retrieval theory*. Delhi: B R publications.

Kumbhar, R. (2012). *Library classification trends in the 21st century*. New Delhi: Chandos publishing.

Neelameghan, A. (2013). *Concept and expression of time: cultural variations and impact of knowledge organization*. New Delhi: Ess Ess publications.

Raghavan, K. S., & Prasad, K. N. (2006). *Knowledge organization, information systems and other essays*. New Delhi: Ess Ess publications.

Ramalingam, M. S. (2000). *Library cataloguing and classification systems*. Delhi: Kalpaz.

Ranganathan, S. R. (2006). *Philosophy of library classification*. Bangalore: Ess Ess publications.

Ranganathan, S. R. & Gopinath, M. A. (2006). *Prolegomena to library classification*. Bangalore, SRELS.

Ranganathan, S.R. (2000). *Colon classification*. Bangalore: SRELS.

Satija, M. P. (2004). *A dictionary of knowledge organization*. Amritsar: Guru Nanak Dev University.

Sharma, C.K. & Sharma Amit K. (2007). *Library classification*. Atlantic Publishers & Distributors.

Shawne, D. M. (2015*). Introduction to resource description and access: Cataloguing and classification in the digital Era.* London: Facet publishing.

Shukla, S. (2015). *Handbook of library classification*. New Delhi: Wisdom press.

Singh, N. (20012). *Library classification*. New Delhi: Random publications.

Sinha, S. C. &. Dhiman, A. K. (2002). *Prolegomena to universe of knowledge.* New Delhi: Ess Ess publications.

Sumangala, J. (2013). *Knowledge organization, information and retrieval*. New Delhi: Anmol.

Tiwari, P. (2012). *Library classification*. New Delhi: A.P.H. publishing corporation.

Williamson, N. J., & Beghtol, C. (2003). *Knowledge organization and classification in international information retrieval*. USA: Haworth information.

25LSH404: INFORMATION PROCESSING: CATALOGUING

Learning Objectives (LO):

- To understand the concept of library cataloguing;
- To familiarize the need, purpose, functions, and forms of cataloging;
- To discuss various laws, canons, and principles of library cataloguing;
- To elucidate the different subject headings;
- To understand different catalogue codes and standards for bibliographic description;
- To understand the filing rules and procedures in library cataloging;
- To know the concept of co-operative, centralized, and union catalogue.

Course Outcome (CO):

CO1 Clear understanding of basic concept of library cataloguing;

CO2 Understanding the normative principles of library cataloguing;

CO3 Gain knowledge about subject cataloguing using different subject headings;

CO4 Know the standardization of bibliographic description and communication.

Unit 1	:	**Library catalogue**: – Meaning, definition, need, purpose, objectives, and functions; – History and development of cataloguing codes and practices; – Resource description standards: ISBD, AACR2R, **BIBFRAME**, FRBR, FRAD**,** and RDA; – Forms of document cataloguing: inner forms and outer forms; – Different kinds of entries: **AACR and CCC;** – Filing rules and procedures.	12hrs
Unit 2		**Subject headings:** – Design and construction; – Chain procedure; – Sears List of Subject Headings (SLSH); Library of Congress Subject Headings (LCSH); and Medical Subject Headings (MeSH).	12hrs

Unit 3	:	**Normative principles of Cataloguing:** – Historical development of normative principles; – Canons and its implications; – Laws of cataloguing and its implications; – Principles of cataloguing; – **Resource sharing of bibliographic data: Meaning and importance;** – Centralized cataloguing, co-operative cataloguing, c**ataloguing at source, CIP** and union catalogues.	12hrs
Unit 4	:	Standardization of bibliographic description and trends: – Bibliographic record format and description standards: UNIMARC, CCF, MARC21; – Bibliographic information interchange and communication standards: Z39.50**, ISO 2709, Z39.71;** – Metadata: Meaning, definition, purpose, use and types; – Metadata standards: DCMI, MODS, **METS, EAD, VRA core, Text Encoding Initiative (TEI);** – **Consortia approach to metadata- OAI-PMH.**	12hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓									
CO3	✓									
CO4	✓				✓					

References:

ALA. (2013). RDA *2013 Revision: Resource Description & Access*. Chicago: American Library Association.

ALA. (2002). *Anglo American Cataloguing Rules*. Chicago: American Library Association.

Anne, W. & Batley, S. (2012). *Practical cataloging: AACR II, RDA and MARC21*, Neal-Schuman publishers.

Barbara, T & Cristian, A. L. (2009). *IFLA cataloguing principles: The statement of International Cataloguing Principles (ICP) and its glossary, In 20 Languages* (IFLA Series on Bibliographic Control), K.G. Saur Verlag.

Bidgut, M. (2005). *Practical cataloguing*. New Delhi: Shree publishers & distributors.

Dawra, M. (2004). *Modern theories of library cataloguing*. New Delhi: Rajat publishers.

Girija Kumar., & Krishnan Kumar. (1983). *Theory of library cataloguing.* New Delhi: Vikas.

Holmes, O. (2015). *Research for library cataloguing: a researchers and professional`s guide*. London: Koros press Ltd.

Janaki, R. C. (2011). *Online cataloging*, New Delhi, Pacific books international.

Khan, M.T.M. (2005). *Anglo American Cataloguing Rules (AACR).* New Delhi: Shree publishers & distributors.

Khan, N. R. (2013). *Library cataloguing*. Kanpur: Gaurav books.

Krishan Kumar. (1986). *An introduction to AACR- II.* New Delhi: Vikash publishing house.

Mahajan, S. G. (2001). *Library cataloguing theory and practical*. Pune: Pune Vidyarthi Gruha prakashan.

Mary L. K. (2001). *Cataloging and classification for library technicians*. New York: The Haworth press.

Miller, Steven J. (2011). *Metadata for digital collections (How-to-Do-It) manual (How to Do it Manuals for Librarians)*. New York: Neal –Schuman publishers.

Mishra, A.R. & Ahmad M.D. (2004). *Issues in digital cataloging.* New Delhi: Shree publishers.

Nanda, M. (2006). *Library cataloguing*. New Delhi: Anmol publications.

Ranganathan, S.R. (1963). *Classified catalogue code with additional rules for Dictionary catalogue.* Bombay: Asia.

Ranghanathan, S.R. (1990). *Classified catalogue code: with additional rules for dictionary catalogue code, associated.* Bangalore: SRELS.

Sharma, & S.K, P. (2001). *Simplified library cataloguing theory*. New Delhi: Sahitya Prakashan.

Sood, S. P. (2004). *Theory of library cataloguing*. Jaipur: Raj publishing house.

Vishwanathan, C.G. (1990). *Cataloguing: theory and practice.* Lucknow: Print house.

Soft core

25LSP405: KNOWLEDGE ORGANIZATION: CLASSIFICATION (PRACTICE)

Learning Objectives (LO):

- To provide students with necessary skills and knowledge to classify the different library materials;
- To make the students proficient in using the different classification schemes, focusing on DDC and UDC;
- To construct class numbers for documents with simple, compound, and complex subjects;
- To synthesize class numbers by using standard subdivisions;
- To synthesize class numbers by using common and special auxiliaries;
- To use notes like “scope”, “inclusion”, “class here” “optional provision” etc.;
- To use different tables of DDC and UDC;

Course Outcome (CO):

CO1 Apply theoretical knowledge of classification schemes and gain skills to organize documents using specific classification schemes into practice;

CO2 Practical knowledge of using DDC and UDC at workplace for constructing classification numbers for different documents;

CO3 Develop an understanding of arrangement, shelving, and organisation of the different library materials;

CO4 Overall practical knowledge of classifying document representing simple, compound and complex subjects.

Classification of documents according to the latest edition of DDC and UDC.

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Part-I: Classification of documents by latest available edition of DDC			
Unit 1	:	- Introduction to the use of DDC: preliminaries and structure; - Classification of documents representing simple subjects.	16hrs

Unit 2	:	- Classification of documents representing compound and complex subject using Table 1 to Table 6.	15hrs
Part-II: Classification of documents by latest available edition of UDC			
Unit 3	**:**	**- Structure of UDC.**	**16hrs**
Unit 4	**:**	**- Use of Common Auxiliaries.** **- Use of Special Auxiliaries**	**15hrs**
		TOTAL	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	✓	✓							
CO2			✓		✓				
CO3	✓	✓							
CO4	✓	✓							

25LSP406: INFORMATION AND COMMUNICATION TECHNOLOGY (PRACTICE)

Learning Objectives (LO):

- To impart practical training in the use of different information technology tools within the library;
- To give practical training in the use of various hardware peripherals;
- To gain the knowledge of using system software like operating systems, database management systems, etc.;
- To learn how to operate different types of operating systems;
- To develop practical skills in using different application software like word processing, spreadsheet, presentation tools;
- To gain the knowledge of different types of databases and database searching;
- Overall knowledge of hardware as well as software tools used in their day to day work.

Course Outcome (CO):

CO1 Acquire the knowledge of working with computer hardware, and its peripherals;

CO2 Gain knowledge of both system software and application software, along with different operating systems;

CO3 Gain knowledge of the word processing and PowerPoint presentation tools;

CO4 Knowledge of spreadsheet tools used for analysis and graphical representation of data.

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Unit 1	:	**Computer hardware components;** **Software:** Operating systems – Microsoft Windows, Unix, Linux.	20 hrs
Unit 2	:	Word processing;	20 hrs
Unit 3	:	Spreadsheet;	12 hrs
Unit 4	:	Presentation tools	10 hrs
		Total	**62 hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓									
CO3	✓									
CO4	✓				✓					

SECOND SEMESTER

Hard core

25LSH451: MANAGEMENT OF LIBRARY AND INFORMATION CENTRES

Learning Objectives (LO):

- To introduce students with the concepts and principles of library management;
- To understand the application of management theories and its applicability's to libraries;
- To understand management of various housekeeping operations in libraries;
- To analyze and evaluate trends in library management such as SWOT, PERT / CPM;
- To develop strategies for human resource management and leadership qualities;
- To apply principles of budgeting, financial management and resource allocation to effectively manage library operations and services;
- To develop and implement effective planning of library and information centres.

Course Outcome (CO):

CO1 Familiarizing students with concepts and principles of library management;

CO2 Gain the knowledge of organizational structure, collection development, and functionalities of different units of the library;

CO3 Comprehend the concept of information systems and project management;

CO4 Understand the human resource management, managerial skills to manage the library effectively.

Unit 1	:	Management concept: - Meaning, definitions and role; - Functions and principles of management; - Schools of thought in management; - Scientific management: Application to library and information centres; - Levels of management; - Organizational structures.	12 hrs

Unit 2	:	**Different functional units of library and information centre:** – **Acquisitions section: Functions and procedures;** – **Technical section: Functions and procedures;** – **Circulation section: Functions, methods of charging and discharging systems;** – **Periodical section: Functions and activities;** – **Reference and customer care services.**	12 hrs
Unit 3		**Collection development:** – **Book selection policies and principles for print and electronic resources, problems of collection development;** – **Online Bookstores: Identification, advantages, online book shops Vs. traditional book shops;** – **Collection management: Stock verification, rectification, weeding of resources;** – **Financial and records management: Importance, sources of finance, mobilisation of financial resources;** - **Budgeting: methods and techniques, budgetary control;** - Project management, SWOT, PERT / CPM; - Management of Information Systems (MIS): Concept and use; – Knowledge management.	12 hrs
Unit 4	:	Human resource management: – Job analysis and description, job evaluation, inter-personal relations, staff selection and recruitment; – Motivation, delegation, decision making; education, training and development; – Performance appraisal, leadership qualities, **gender pay gap**; – Library buildings and equipment, performance evaluation of Library and information centres, Total Quality Management (TQM); – Library committee, library rules and regulations, library statistics, library records, annual reports.	12 hrs
		Total	48hrs

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	✓				✓	✓		✓	
CO2	✓								
CO3	✓					✓			
CO4						✓		✓	

References:

Bakewell, K. G. B. (1997). *Managing user-centred libraries and information services*. 2nd ed. London: Maxwell.

Bryson, J. (1996). *Effective library and information management*. Bombay: Jaico Pub.House

Chatterjee, A.K. (1982). *Introduction to management: Its principles and techniques*. Kolkatta: World Press.

Crawford, J. (1997). *Evaluation of library and information services effectively*. 2nd ed, London: Aslib.

Evans, G. E. (1983). *Management techniques for librarians*. 2nd ed. New York: Academic Press.

Evans, G. E. & Layzell, P. (2007). *Management basics for information professionals*. 2nd ed. London: Libraries Unlimited.

Gautam, J. N. (1991). *Library and information management*. New Delhi: Prentice Hall India.

Georgi, C., Bellanti, R., & Holbrook, F. K. (2013). *Excellence in library management*. Hoboken: Taylor & Francis.

Gupta, K. D. (2001). *Library practice for effective management,* New Delhi: Indian Library Association.

Hayes, R. M. (2001). *Models for library management, decision-making, and planning*. San Diego: Calif: Academic Press.

Hernon, P., & Altman, E. (1998). *Assessing service quality: Satisfying the expectations of library customers*. Chicago: American Library Association.

Hendry, J. D., & Batchelor, B. (1997). *How to market your library services effectively*. London: Aslib.

Jain, A. K. (1999). *Marketing information products and services: A primer for library and information professionals*. New Delhi: Tata McGraw-Hill.

Krishna Kumar. (1987). *Library Administration and Management*, Delhi: Vikas.

Krishan Kumar. (1985). *Library manual*. New Delhi: Vikas.

Lancaster, F. W., & Sandore, B. (1997). *Technology and management in library and information services*. Champaign Ill: University of Illinois Graduate School of Library & Information Science.

Laughlin, S., & Wilson, R. W. (2008). *The quality library: A guide to staff-driven improvement, better efficiency, and happier customers*. Chicago: American Library Association.

Martin, J. (2009). *Human resource management.* Los Angeles: SAGE.

Mittal, R.L. (1984). *Library administration: theory and practice*. 5th ed. Delhi: Metropolitan.

Narayana, G J. (1991*). Library and information management*. New Delhi: Prentice Hall of India.

Panwar, B.S. & Vyas. S.D. (1986). *Library Management*. New Delhi: B.R. publishing corporation.

Peter, C., & Gorman, G.E. (2001*). Managing information resources in libraries and information services*: *collection management in theory and practice*. London: Facet Publishing.

Philip, D. L., David C. W. & Keyes D. M. (2010). *Planning academic and research library buildings.* New Delhi: Ess Ess publications.

Prytherch, R. ed. (1998). *Gower handbook of information management*. London: Gower.

Pugh, L. (2007). *Change management in information services*. Aldershot, Hampshire, England: Ashgate.

Ramansu, L. (1996). *Management of libraries concepts and practices*, New Delhi: Ess-Ess publications.

Ranganathan, S.R. (1959). *Library administration*. 2nd ed. Bombay: Asia.

Rowley J. (2001). *Information marketing*. Aldershot: Ashgate.

Simmons, W. J., & McNeil, B. (2004). *Human resource management in today's academic library: meeting challenges and creating opportunities*. Westport, Conn: Libraries Unlimited.

Singhed.S . P. (2009). *Library administration and resources.* New Delhi: Omega publications.

Subodh, G. N. (2011). *Library Management: Recent thoughts and development.* Kaveri Books.

25LSH452: LIBRARY AUTOMATION

Learning Objectives (LO):

- To prepare the students to get the basic knowledge of library automation;
- To impart knowledge and skills in using different library automation software;
- To understand the infrastructure used for setup of library automation;
- To familiar with the implementation of library automation software in different areas library operations;
- To know the different applications used in various housekeeping operations of the library;
- To study the important standards implemented in library automation software.
- To know the different types of library automation packages like open source, free and propritory based.

Course Outcome (CO):

CO1 Able to understand infrastructure, planning, and process of library automation;

CO2 Gain the knowledge of various automated in-house library operations, standards and specifications along with advanced applications of library automation.

CO3 Knowledge of technology used for automation of different library operations;

CO4 Understanding of various library automation software packages like SOUL, Libsys, KOHA, NewGenLib, and e-Granthalaya.

Unit 1	:	**Library automation:** – **Meaning, definition, history, need, types, and importance;** – **Areas of library automation;** – **Advantages and disadvantages;** – **Strategies for library automation;** – **Infrastructure requirements for library automation: Hardware, software, skilled manpower, training, cost, physical equipment, furniture, maintenance.**	**12 hrs**
Unit 2	:	**Automation of housekeeping operations:** – **Acquisitions, cataloguing, circulation, serials control, OPAC/Web OPAC;**	**12 hrs**

		– **Application of barcode, QR code, Radio-Frequency Identification (RFID), and Near-Field Communication (NFC) technology, smartcard technology, artificial intelligence, blockchain technology.**	
Unit 3	:	**Standards of library automation:** – **Standards and specifications: MARCXML, NACO, SRU/SW, SRU/SRW, NCIP (NISO), SIP2, SIP/NCIP, OAI-PMH.**	**12 hrs**
Unit 4	:	**Library automation software packages:** – **Proprietary software: SOUL, LIBSYS;** – **Open source software: KOHA, NewGenLib;** – **Free software: E-granthalaya;** – **Criteria for evaluation of library automation software.**	**12 hrs**
		Total	48hrs

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	✓								
CO2	✓				✓				
CO3	✓				✓				
CO4	✓				✓				

References:

Balakrishnan, S. (2000). *Networking and the future of libraries*. New Delhi: Ess Ess publications.

Balakrishnan, S., & Paliwal, P. K. (2001). *Academic library automation*. New Delhi: Anmol publications Pvt Ltd.

Bansal, S. K. (2005). *Information technology and globalisation*. New Delhi: A.P.H. publishing.

Dhiman, A. K. (2003). *Basics of information technology for librarians and information scientists*. New Delhi: Ess Ess publications.

Faruqui, K. K. (1997). *Automation in libraries*. New Delhi: Anmol.

Gupta, S. (1995) *Manpower needs of automated libraries*. New Delhi: Ess Ess publications

Haravu, L. J. (2004), Library automation: Design, principles and practice. London: Allied Publishing.

Kashyap, M. M. (2003). *Database systems*. New Delhi: Vikas.

Kochar, R.S. (2007). Library Automation: Issues and Principles. New Delhi: APH publishing Corporation.

Lucy, A. T. (2005). *An introduction to computer based library system*. Chichester : Wiley.

Michael, D C. (1996). *Design of library automation systems: File structures, data structures and tools: New York:* John Wiley.

Moorthy, A L (1997). *Information technology applications in academic libraries in India with* Mrunalini, T. (2012). *Information and communication technology (ICT) in education*. New Delhi: Pearson.

Naik, U. (2016). Library automation software: A comparative study of KOHA, LibSys, NewGenLib and SOUL. *International journal of library science and research (IJLSR) 6*(6), 2250-2351.

Naik, U. (2021). Importance of Library and Information Communication Technology Standards in the Digital Era: An Analytical Study. *American Journal of Information Science and Technology 5* (4) 98-103. *https://www.sciencepublishinggroup.com/article/10.11648/j.ajist.20210504.13*

Norton, P. (2017). *Introduction to computers*. New York: McGraw Hill education.

Pandey, V. C. (2004). I*nformation and communication technology*. New Delhi: Isha books.

Patnaik, S. (2001). *First text book on information technology*. New Delhi: Dhanpat Rai.

Prasher, R.G (2003). *Indian libraries in IT environment.* , Ludhiana: Medallion Press.

Rajaraman, V. (2000). *Fundamentals of computer*. New Delhi: Prentice Hall of India.

Rao, R (l996). Library automation. New Delhi: New Age International.

Saxena, S. (2001). *A first course in computers*. New Delhi: Vikas publishing house.

Sivasubramanyam, Y., & Shenoy, D.R. (2007). *Computer hardware and system software concepts*. Bangalore: Infosys.

Srinivasan, T. M. (2002). *Information and communication technology*. Jaipur: Aavishkar publishers & distributors.

Tanenbaum, A. S. (2010). *Computer networks.* New Jersey: Pearson education.

Thareja, R. (2019). *Fundamentals of computers*. Oxford: Oxford University press.

25LSP453: INFORMATION PROCESSING: CATALOGUING (PRACTICE)

Learning Objectives (LO):

- To prepare catalogue entries for books and non-book materials using Anglo American Cataloguing Rules;
- To derive subject headings to all entries Sears List of Subject Heading;
- To catalogue single personal authorship, joint authorship, works of more than three authors;
- To catalogue collaborative works, series, multivolume works, serials, and uniform titles;
- To catalogue corporate authorship like government publications, conference/seminar proceedings, workshops, and other corporate bodies;
- To catalogue non-book materials like cartographic materials, microforms and manuscripts;
- To catalogue sound recordings, video recordings, and electronic resources.

Course Outcome (CO):

CO1 Applying theoretical knowledge of cataloguing into hands-on practice;

CO2 Clear understanding of standards like Anglo American Cataloguing Rules and Sears List of Subject Heading;

CO3 Understanding the structure of catalogue card, various areas of bibliographical descriptions and different punctuations for cataloguing of documents;

CO4 Knowledgeable and capable of cataloguing different documents at their workplace.

Cataloguing of Documents according to latest edition of AACR/RDA

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Unit 1	:	Preliminaries of Anglo American Cataloguing Rules / **RDA and use of Sears List of Subject Headings.**	15 hrs.
Unit 2	:	Single personal author and shared responsibility with editorial direction, series and multi volumes.	15 hrs.

Unit 3	:	Corporate bodies, serials and uniform titles	12 hrs.
Unit 4	**:**	**Non book materials: Cartographic materials, microforms and manuscripts, sound recordings, video recordings and electronic resources.**	**20 hrs.**
		Total	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	✓	✓							
CO2	✓	✓							
CO3	✓	✓							
CO4	✓	✓							

Soft core

25LSP454: LIBRARY AUTOMATION (PRACTICE)

Learning Objectives (LO):

- To impart practical training in the use of library automation software;
- To familiarize students with open source, free and proprietary library automation software;
- To gain the knowledge of installation and setting up of global parameters;
- To provide hands on training specific modules of popular library automation software;
- To know the process of report management, data export and import, and data security;
- To gain the capacity of operating user interfaces OPAC/Web OPAC;
- To explore the emerging trends and issues in library automation and impact of modern technologies in library services.

Course Outcome (CO):

CO1 Gain knowledge of installation and configuration of library automation software;

CO2 Carry out library housekeeping operations using library automation software;

CO3 Develop practical skills in working with different modules of library automation and management tools.

CO4 Able to import and export bibliographic information from other bibliographical databases.

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Unit 1	**:**	**Installation of library automation software - Koha/NewGenLib/ e-Granthalaya.**	**20 hrs**
Unit 2	**:**	**Basic parameters of any one software and working with administration module and system parameters.**	**15 hrs**
Unit 3	**:**	**Working with modules: Cataloguing, acquisitions, patron management, circulation, serial control, OPAC/Web OPAC.**	**15 hrs**
Unit 4	**:**	**Report management, export and import of bibliographical data, data security.**	**12 hrs**
		Total	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓				✓					
CO3	✓				✓					
CO4	✓				✓					

25LSS455: CONSERVATION AND PRESERVATION OF INFORMATION RESOURCES

Objectives:

- To familiarize students with the preservation and conservation of information sources;
- To know evolution of writing materials;
- To understand different types of library materials, their preservation;
- To study various National Archival Initiatives of different countries;
- To know digital preservation;
- To study record management concepts and issues;
- To understand hazards to library materials and their preservation.

Course Outcome (CO):

CO1 Familiarise with methods and process practiced to preserve important documents in libraries;

CO2 Knowledge of evolution of storage devices used to record and preserve knowledge through ages till modern times;

CO3 Awareness of hazards of library materials and modes used for their preservation;

CO4 Knowledge of methods, tools, legal issues related digitization and digital preservation.

Unit 1	:	Introduction to concepts of archiving, preservation and conservation: – Need and significance of archiving, preservation and conservation of information resources; – Evolution of writing materials: Clay tablets, papyrus, metallic plates, skin, parchment, vellum, palm leaves; – History, nature, use as writing materials and their preservation; – History of paper making, different types of paper and their nature.	12 hrs
Unit 2	:	**Preservation and maintenance of different types of library materials:** – Paper-based materials - Book and non-book materials, library binding, binding standards; – Preservation and conservation of non-print materials:	12 hrs

		microforms, audio visual records, magnetic plates, tapes and diskettes, optical media, magneto-optical discs; – Hazards to library materials: Environmental hazards, biological hazards, and human being as an enemy of library materials, disaster prevention and recovery.	
Unit 3		**Digital Preservation:** – **Digitization: Introduction, selection of material for digitization;** – **Digital technologies: hardware and software, project management and costs of digitization;** – **Digital reformatting: Text, photos, audio, video and other formats;** – **Open formats vs. proprietary formats;** – Digital preservation: Strategies, tools and techniques, legal issues.	12 hrs
Unit 4	**:**	**Records management and study of national archival initiatives of different countries**: – Record management: Concepts and issues involved; – Information resource management (include electronic resource management), code of ethics for archivists; – NARA of US, Australian National Initiatives, Public Archives of Canada, and National Archives of India; – Trends in preservation.	12 hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓									
CO3	✓									
CO4	✓				✓		✓			

References:

Acemoglu, D. (2002). Definitions of conservation, New Delhi: Oxford University, Press.

Ahluwalia, J. (2008). Libraries and scholarly communication in the India: *The historical Dimension*, New Yor: UNDP.

Bardhan, P. (2006). Selecting and Appraising Archives and Manuscripts, Amritsar: Guru Nanak Dev University.

Batra, G. (2005). Preservation of Library and Archival Materials: A Manual London: BBC Books.

Bhaghath Ben & Govindbhai P. (2013). Preservation of Library Collection. New Delhi: : Discovery Publishing.

Bhall, G.S.(2006). Collections *Policies and Preservation*, Cambridge: Cambridge University Press.

Canagarajah, S. (2006). *Library Resources and Technical Services*, New Delhi,: Council for Social Development.

Chadha, G.K. (2004). Preservation: Issues and Planning, New Delhi: Oxford University, Press.

Dahlman, C. (2000). A Glossary of Archival and Records Terminology, London and New York: Longman.

Dasgupta, A.K. (2008). The Future of the Past: Preservation in American Research Libraries, London: Yale University, Press.

Dearden, L. (2004). Photographs: Archival Care and Management, London: University College London.

Gupta, R. (2002). The Artit's Handbook of Materials and Techniques, London: Sage Publications.

Gupta, S.P. (2006). Permanence of Paper for Publications and Documents in Libraries and Archives, Chicago: University of Chicago Press.

25LSS456: INFORMATION LITERACY

Learning Objectives (LO):

- To know the concept and importance of information literacy;
- To understand the historical perspectives of information literacy;
- To identify different types of information literacy;
- To gain the knowledge about information literacy models;
- To know the information literacy standards;
- To have knowledge of information literacy skill and competencies;
- To know the current trends in information literacy.

Course Outcome (CO):

CO1 Able to understand the concept and importance of the information literacy;

CO2 Gain knowledge of information literacy models and standards;

CO3 Get knowledge of different information literacy programmes;

CO4 Understanding the information literacy skills, competencies, and current trends in information literacy.

Unit 1	:	**Fundamental of information literacy:** – Information Literacy: Meaning, definition, need, evolution of the concept, historical perspectives; – Types of information literacy: Technology literacy, media literacy, computer and digital literacy; – **Levels of information literacy: Entry level, mid-level, high level, advance level, partners of information literacy;** – Lifelong learning and **self-learning**.	12 hrs
Unit 2	:	**Information literacy models, guidelines and standards:** – Models of information literacy: SCONUL seven pillar, B-6, ANCIL, Empowering 8, **CAUL (Australian) model, and ELLIS;** – Guidelines and standards for information literacy programs: ALA, IFLA, ACRL; – **Use of audio-visual aids, programmed instructions in specified disciplines, resource based instructions;** – **Information literacy missions, forums and task forces.**	12 hrs

Unit 3	:	**Information literacy programmes:** – Study of information literacy programs in India and world; – Role of libraries in information literacy; – **Information literacy instructions in different types of library and information centres;** – **Integration of information literacy in different levels of education;** – **Information literacy for library users and professionals;** – **Information literacy for research and development.**	12 hrs
Unit 4	:	**Information literacy skills, competencies and trends:** – Literacy skills: Communication skill, problem solving skill, critical thinking, computer skill, and research skill; – **Information literacy initiatives in global perspective;** – Current trends in information literacy; – Information literacy competencies and challenges; – **Web-based information literacy system;** – **Application of emerging technologies in information literacy**.	12 hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓									
CO2	✓									
CO3	✓		✓							
CO4	✓				✓			✓	✓	

References:

A.L.A. (1989). *Final report of the A.L.A. presidential committee on information literacy*. Chicago: A.L.A.

Alewine, M. C., & Mark C. (2017). *Introduction to information literacy for students.* Wiley Blackwell Publication.

Baldwin. V A. (2005). *Information literacy in science & technology disciplines*. Lincoln: University of Nebraska.

Barker, K. and Londsale, R. (Ed.). (1994). Skills *for life: The value and meaning of literacy*. London: Taylor Graham.

Bawden, D. (2001). *Information and digital literacies:* A review of concepts.

Blanchett, H. (2010). *A guide to teach information literacy*. London: Facet.

Bravender, P., McClure, H., & Gayle S. (2015). *Teaching information literacy threshold concepts: Lesson plans for librarians*. Chicago: American Library Association.

Broussard, Mary Snyder. (2017). *Reading, research, and writing: teaching information literacy with process-based research assignments*. Chicago: American Library Association.

Corrall, S. (2010) . *Information literacy through inquiry*. London: Facet.

De Abreu, B. S., Mihailidis, P., Lee, A. Y.L., Melki, J., & McDougall, J. (2017). *International handbook of media literacy education* . London: Routledge publications.

Dominika, D. (2016). *Data information literacy: Librarians, data and the education of a new generation of researchers*. New York: Scitus Academics LLC.

Downey, A. (2016). *Critical information literacy: Foundations, inspiration, and ideas*. Sacramento: Library Juice Press.

Eisenberg, M. B., Lowe, C. A., & Spitzer, K. L. (2004). *Information literacy: Essential skills for information age*. London: Libraries unlimited.

Eisenberg, M.B. (2004). *Information literacy: essential skill for the information age.* West Port: Libraries unlimited.

Forster, M. (2017). *Information literacy in the workplace*. London: Facet Publishing.

Godwin, P., & Parker, J. (2008). *Information literacy meets library 2.0*. London: Facet.

Grassian. E.S. (2005). Learning to lead and manage information literacy instruction. New York: Neil Schuman publishers.

Grassin, E S, & Kaplowitz, J R. (2001). I*nformation literacy instruction: theory and practice.* New York: Neal Schuman.

Martin, A., & Rader, H. (2003). *Information and IT literacy: Enabling learning in the 21st century*. London: Facet.

Meadows, A.J. (Ed,), (1991). *Knowledge and communication: Essays on the information chain.* London: Library Association.

Zorana, E. (2008). *Information literacy: Search strategies, tools & resources for high school students and college freshmen.* California: Linworth Publishing.

Open elective

25LSE457: ELECTRONIC INFORMATION RESOURCES

Learning Objectives (LO):

- To familiarize students with the meaning, definition, and characteristics of information sources;
- To know the criteria for evaluation of information resources;
- To study the different types of electronic information sources;
- To have the knowledge of scholarly electronic learning resources and information centres;
- To understand the concept of open access resources and databases;
- To gain knowledge about the national and international library consortia;
- To understand the different types of electronic information services;

Course Outcome (CO):

CO1 Understand the concept and different types of electronic information resources;

CO2 Knowledge of scholarly electronic learning resources and information centres ;

CO3 Gain knowledge of open access resources and different databases;

CO4 Understanding of both national and international library consortia;

Unit 1	**:**	**Electronic Information sources:** – **Information sources: Meaning, definition, characteristic, and use;** – **Types of sources (primary, secondary, tertiary);** – **Electronic information resources: Meaning, characteristic, and importance;** – **Types: E-journals, e-books, e-theses, e-newspapers, blogs, and wikis, online dictionaries and encyclopedias: free and proprietary, website, institutional repositories, and other e-resources;** – **Benefits, limitations and evaluation of information sources.**	**12 hrs**
Unit 2	**:**	**Scholarly e-resources:** - **E-learning: Concept of MOOC, e-PGPathshala, e-Adhyayan,**	**12 hrs**

		Swayam, Swayam Prabha, Virtual Labs, National Digital Library of India (NDLI); - **Library resource centres: INFLIBNET- IndCat, Shodhganga, IRINS; DELNET- Databases; OCLC – WorldCat;** - **Citation indexing databases: WoS, Scopus, Google Scholar.**	
Unit 3		**Open access resources:** - **Concept, types, features;** - **Publishers: Taylor & Francis, Elsevier, Wiley, Springer, Sage, Emerald;** - **Open access databases: DOAJ, DOAB, Open DOAR.**	**12 hrs**
Unit 4	**:**	**Library consortia:** – **Meaning, definitions, objectives, types, study of various library consortia;** – **National: NKRC, HELINET, CeRA, e-ShodhSindhu, ONOS;** – **International: RLUK, ICOLC, CONCERT, CARLI.**	**12 hrs**
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	✓	✓							
CO2	✓		✓						
CO3	✓	✓	✓						
CO4	✓		✓						

References:

Bopp, R. E., & Smith, L. C. (1995). Reference and information services: An introduction. Englewood, Colo.: Libraries Unlimited.

Cassell, K. A., & Hiremath, U. (2013). Reference and information services: An introduction. 3rd ed. London: Facet publishing.

Chatterjee, Amitabha (2013). Elements of information analysis, consolidation and repackaging (IACR). Kolkata: Prova Prakashani.

Chowdhury, G. G. & Chowdhury, S. (2001). Information sources and searching on the World Wide Web. London: Facet publishing.

Chowdhury, G. G. & Chudhry, Sudatta (2000). Searching CD-ROM and online information sources. London: Library Association

Crawford, J. (2006). The Culture of evaluation in library and information services. Burlington: Elsevier Science.

Farmer, L. S. J. (2007). The human side of reference and information services in academic libraries: Adding value in the digital world. Oxford: Chandos.

Foskett, D. J. (1994). Information service in libraries. New Delhi: Anmol publications.

Gorman, G. E. (2001). Information services in an electronic environment. Lanham, MD: Scarecrow press.

Guha, B. (1983). Documentation and information: services, techniques and systems. Calcutta: World Press.

Katz, B. (2002). Introduction to reference work. Boston: McGraw-Hill.

Krishna Kumar (2003). Reference service, Ed.3, New Delhi: Vikas.

Lankes, R. D., & Nast, P. (2008). Virtual reference service: from competencies to assessment. New York: Neal-Schuman publishers.

Lea, Peter W & Day, Alan. (1996) Reference sources handbook. London: Library Association.

Li, X., & Crane, N. (1993). Electronic style: a guide to citing electronic information. Westport: Meckler.

Lipow, A. G. (2003). The virtual reference librarian's handbook. Berkeley, Calif: Library Solutions Press.

Lipson, C. (2006). Cite right: A quick guide to citation styles--MLA, APA, Chicago, the sciences, professions, and more. Chicago: University of Chicago Press.

Mitchell, E., & Walters, S. A. (1995). Document delivery services: Issues and answers. Medford, NJ: Learned Information.

Pugh, L. (2007). Change management in information services. England: Ashgate.

Ranganathan, S. R. (2006). Reference service. Bangalore: SRELS.

Rao, I.K.R. (2001). Electronic sources of Information. Bangalore: DRTC.

Ross, C.S., Nilsen, K., & Dewdney, P. (2002). Conducting the reference interview: a how-to-do manual for librarians. London: Facet publishing.

Singh, S. (2001). Hand book of international sources on reference and information. New Delhi: Crest Publication.

THIRD SEMESTER

Hard core

25LSH501: INFORMATION RETRIEVAL

Learning Objectives (LO):

- To introduce the concept of information retrieval systems;
- To familiarize with the components and process of information retrieval;
- To understand the pre and post coordinate indexing systems;
- To study the various methods and techniques of information retrieval and search strategies;
- To know the theories and methods of indexing languages;
- To study the criteria for evaluation of indexing systems;
- To familiarize students with information retrieval models and standards.

Course Outcome (CO):

CO1 Understand the components and functions of information retrieval systems;

CO2 Gain knowledge of subject representation and indexing languages and systems;

CO4 Knowledge of information retrieval models and standards;

CO4 Get the knowledge of criteria for evaluation of indexing systems.

Unit 1	:	**Information retrieval system:** - Definition, history, functions and components **(Lancaster's diagram);** - **Approaches to information retrieval: System-centered and user-centered;** - **Kinds of IRS: OPACs, online databases, digital libraries and web-based information services and web search engines;** - **Data retrieval vs. information retrieval;** - **Search engines as IRS,** search techniques.	12 hrs
Unit 2	:	**Subject representation and indexing languages:** - **Need for indexing language; significance of citation order; an overview of historical development of indexing including but not limited to the contributions of Cutter, Kaiser,**	12 hrs

		Ranganathan, Farradane and Coates; - Type of indexing systems: Pre-coordinate indexing and Post coordinate indexing; detailed study of chain indexing, PRECIS, POPSI, Uniterm, **Peek-a-boo, Edge-notched cards.**	
Unit 3	**:**	**Subject indexing systems:** – **Title based (KWIC, KWOC and KWAC); citation based (SCI, SSCI, etc.) and full-Text (STAIRS, LEXIS-NEXIS, etc.). automatic indexing: COMPass;** – **Vocabulary control: Meaning, need and importance; vocabulary control tools – subject heading lists and thesauri, thesaurus construction;** – **Case study of controlled vocabularies/ ontologies including but not limited to ERIC, MeSH, SLSH, LCSH, and Getty.**	12 hrs
Unit 4	**:**	**Information retrieval models:** – **Concepts of ranking, term weight, Document Frequency (DF), Inverse Document Frequency (IDF);** – **Study of structural models –** Boolean model and vector space model; – **Need for evaluation of information retrieval systems;** – **Understanding the criteria for evaluation including but not limited to recall, precision, specificity and exhaustivity;** – Evaluation studies: ASLIB/Cranfield, MEDLARS, **TREC,** SMART.	12 hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓	✓								
CO2	✓		✓		✓					
CO3	✓				✓					
CO4	✓	✓								

References:

Alberico, R. & Micco M. (1990). *Expert systems for reference and information retrieval*. West Port: Meckler. Aslib

Atchison, J. & Alan G. A. (1972). *Thesaurus construction: a practical manual*. London: Aslib.

Atchison, J. & Gilchrist, A. (1972). *Thesaurus construction: a practical manual.* London: Aslib.

Austin, D. (1984). *PRECIS: A manual of concept analysis and subject Indexing*. 2nded.

Chowdhruy, G. G. (2003). *Introduction to modern Information retrieval*. 2nd Ed. London: Facet Publishing.

Cleaveland, D. B. (2001). *Introduction to indexing and abstracting*. 3rd Ed. Englewood Colo.: Libraries Unlimited

Crawford, M. J. (1988). *Information broking: a new career in information work*. London: Facet publishing.

Ford, N. (1991). *Expert systems and artificial intelligence: An information manager's guide*. London: LA.

Ghosh, S. B., & Biswas, S.C. (1998). *Subject indexing systems: Concepts, methods and techniques*. Rev. ed. Calcutta: IASLIC.

Lancaster, F. W. (1968). *Information retrieval systems, characteristics, testing and evaluation*. London: Facet publishing.

Lancaster, F.W. (2003). *Indexing and abstracting in theory and practice.* London: Facet publishing.

Pandey , S.K. (2000). *Library information retrieval*. New Delhi: Anmol.

Seetharama, S. (1997). *Information consolidation and repackaging.* New Delhi: Ess Ess publications.

Van, R.C.J.(1970). *Information retrieval*, 2nd ed. London: Butterworths.

Vickery, B.C. (1970). *Techniques of information retrieval*. London: Butterworths.

25LSH502: RESEARCH METHODOLOGY IN LIS

Learning Objectives (LO):

- To familiarize students with concepts and types of research;
- To learn how to formulate research objectives, hypotheses, and research design;
- To know the research tools and techniques;
- To understand the research methods and process;
- To familiarize students with the various metrics studies and their applications;
- To understand data analysis and interpretation;
- To develop the skills of report writing.

Course Outcome (CO):

CO1 Gain the knowledge of research methodology, research design, and research instruments for data collection;

CO2 Knowing the fundamentals of various metric studies and their applications;

CO3 Knowledge and use of statistical tools and techniques for data analysis and interpretation;

CO4 Aware of methods of presenting and reporting research findings;

Unit 1	:	**Foundations of research and research design**: – Concept, meaning, definition, need and steps in research; – Types of research; – Ethical aspects of research, **barriers to research**; – Areas of research in LIS; – Research design: Definition, types, and their characteristics; – Identification and formulation of the problem; – Literature search and **review;** – Hypotheses: **Formulation, types and testing**; – Preparation of research proposal.	12 hrs
Unit 2	:	**Research methods, tools, and techniques:** – Scientific method, historical method, descriptive method, survey method, case study method, experimental method, Delphi method;	12 hrs

		– Metric studies: Bibliometrics, scientometrics, informetrics, webometrics, and altmetrics – Sampling: Concept of study population and sample, types and techniques, **sample bias and errors;** – **Pilot study;** – Data gathering tools: Questionnaire, interview, observation, schedule, library record and reports, scales and checklists;	
Unit 3	**:**	Data analysis and interpretation: – Variables and its types; – **Parametric and non-parametric**; – Descriptive statistics: Measure of central tendency, measure of dispersion, co-relation; – Inferential statistics: Chi-Square, T-test, ANOVA, Z-test, KMO test, **factor analysis;** – Graphical presentation of data: Bar, pie, line-graphs, histograms; – Statistical packages: SPSS, **MS Excel, R, MATLAB**.	12 hrs
Unit 4	**:**	Research reporting: – Structure, components, and guidelines of research reports; – Criteria for evaluation of research report; – Style manual: APA, Chicago, **IEEE**, and MLA; – Citation and reference management and relevant tools: Zotero and Mendeley; – **Plagiarism: concepts, types and plagiarism detection tools.**	12 hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓			✓						
CO2	✓			✓						
CO3	✓			✓						
CO4	✓			✓						

References:

Bhandarkar. P.L, & Wilkinson. T. S. (1992). *Methodology & techniques of social research* Ed.9. Bombay: Himalaya.

Busha, C H & Harter, SP. (1980). *Research methods in librarianship: Techniques and interpretation*. New York: Academic.

Charles, H. et.al. (1993). *Research methods in librarianship: Techniques and interpretations*. New Delhi: Sage.

Fowler, F.J. (1993). *Survey research methods*. New Delhi: Sage.

Goode, W.J. & Hatt, P.K. (1980). *Methods in social science research*. New Delhi: McGraw Hill.

Gopal, M.H. (1990). *An introduction to research procedure in social sciences*. Bombay: Asia.

Kothari. C.R. (1990). *Research methodology.* New Delhi: Wishwa Prakashan.

Krishna Kumar (1992). *Research methods in library in social science*. New Delhi: Vikas.

Krishna, S. O. R. (1993). *Methodology of research in social sciences*. Bombay: Himalaya.

Krishnaswami, O. R. (1993). *Methodology of research in social sciences*. Bombay: Himalaya.

Leddy, P. D. (1980). *Practical research: Planning design*. London: Clive-Bingley.

Line, M.B. (1967). *Library surveys*. London: Clive Bingley.

Mohsin, S.M. (1984). *Research methods in behavioural science.* Kolkatta: Orient Longman.

Nicholas D. & Ritchil, M.(1979). *Literature and bibliometrics*. London: Clive Bingley.

Rao, R. I. K. (1985). *Quantitative methods for library and information science*. New Delhi: Wiley Eastern.

Sharma, R. N & Sharma, R K. (1987). *Research methods in social sciences*. Bombay: Media Promoters & Publishers Pvt. Ltd.

Sing, Sadhu. (1980). *Research methodology in social sciences*. Bombay: Himalaya Publishing House.

Slatter, M. (1990). *Research methods in library and information science*. London: L.A.

Stevens, R E . Ed. (1971). Research methods in librarianship. London: Bingley.

Wilson, E B. (1952). Introduction to scientific research. New Delhi: Mc- Graw Hill.

Young, P V. (1987). Scientific social surveys and research, Ed 4. New Delhi: Prentice Hall.

25LSH503: WEB TECHNOLOGIES AND TOOLS

Learning Objectives (LO):

- To study computer network, its types and topologies;
- To know the origin and working settings of Internet
- To introduce the concept of internet tools and services;
- To understand the applications of artificial intelligence and their domains in libraries;
- To know the standards and specification of web technology;
- To study the implications of web technologies for library and information management;
- To understand web design and host a website using different tools and standards;

Course Outcomes (CO):

CO1 Knowledge of internet, computer networks, web technology and their applications in library and information management;

CO2 Clearly understanding the metadata, web standards and web design using cutting edge tools and their application in libraries;

CO3 Aware about the web content management tools like Joomla, Drupal, WordPress, and Moodle;

CO4 Overall knowledge of web technologies and tools applicable to library and information centres;

Unit 1	:	**Computer networks and Internet**: – Concept, definition, and types of networks - PAN, LAN, CAN, MAN and WAN; – Network topologies: Line, bus, ring, star, tree, mesh; – Network models and architecture: OSI, TCP/IP; – Network protocols: SMTP, HTTP, FTP; – Internet: Meaning, origin, Internet service providers; – Internet tools and services: WWW, email, FTP, search engine, list forum, PING, websites, browser, blogs, semantic web, cloud computing; – Internet-based library and information services.	12 hrs

Unit 2	**:**	Web technology: – Web: concept, web pages, websites, Web 1.0, Web 2.0, and Web 3.0; – Concepts and application of RSS feeds, metadata, blogs, social bookmarking, social networking, semantic webs; – **Web standards and applications: IETF, W3C, DOM, IANA, ISOC, WHATWG;** – **Other standards: RDF, RIP, SPARQL, Unicode Standard, URI, WOL, SWRL.**	**12 hrs**
Unit 3	:	**Artificial intelligence in libraries:** – **Artificial intelligence: Concept, origin, characteristics, advantages and disadvantages;** – **Domains of artificial intelligence: Machine learning, deep learning, big data, blockchain, robotics, Internet of Things, Natural Language Processing;** – **Applications of artificial intelligence in libraries.**	12 hrs
Unit 4	:	**Web design and content management system**: – Website: Meaning, types, process, and elements – Markup languages: HTML, SGML, XHTML, **DHTML;** – Web servers: Apache, Internet Information Services (IIS), Nginx; – Scripting languages: Client-side scripting - CSS, VB script and Java script; server-side scripting - ASP and JSP; – Web content management: Concept, types, benefits; – **CMS terminology – LAMP, WAMP and MAMP;** – Open source content management tools: Joomla, Drupal, WordPress, and Moodle.	12 hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓				✓					
CO3	✓				✓					
CO4	✓				✓				✓	

References:

Andrew, S.T. & David J.W. (2011). Computer Networks. Boston: Pearson Prentice Hall.

Andrew, J. (2004). *Digital libraries: Policy planning and practice.* Hampshire: Ashgate.

Arms, W. Y. (2005). *Digital libraries*. New Delhi: Ane Books.

Balakrishnan, S. (2000), *Networking and the future of libraries.* New Delhi: Ess Ess publications.

Bansal, S. K.(2005*). Information technology and globalisation*. New Delhi: A.P.H. Publishing corporation.

Bell, A. (2009). *Exploring Web 2.0: Second generation internet tools blogs, podcasts, wikis, networking, virtual Worlds, and more*. Georgetown: TX: Katy crossing Press.

Bose, K. (2010). *Information networks in India: Problems and prospects*. New Delhi : Ess Ess publications.

Campesato, O. & Nilson, K. (2011), *Web 2.0 fundamentals with Ajax, development tools, and mobile platforms.* Sudbury, Mass: Jones and Barlett Publishers,

Chowdhury, G. G. (2013). Introduction to Digital Libraries. London: Facet Publishing.

Chwan-Hwa (John) Wu. (2013). Introduction to Computer Networks and Cybersecurity. New Delhi, CRC Press.

Comer, D. E. (2014) Computer Networks and Internets. 6th Ed. New Delhi: Pearson.

Diane K. (2015). The Whole Digital Library Handbook. ALA Editions. Indiana Publishing House.

Governor, J., Nickull, D., & Hinchcliffe, D. (2009), *Web 2.0 architectures. Sebastopol.*, C.A: O Reilly Media, Inc

Hallberg, Bruce.(2013). *Networking: A beginner's guide*. 6th Ed. New York: McGraw-Hill Education.

Jones, K. M. L., & Farrington, P.-A. (2011). *Using WordPress as a library content management system*. Chicago, IL: ALA TechSource.

Kumar, P.S.G. (2004). *Information Technology: Applications (Theory and Practice)*. Delhi: B.R publishing.

Kurose, James F. & Ross, Keith W. (2012). *Computer networking: A top-down approach*. 6th Ed. New York: Pearson.

Michael J. K. (2014). *Architecting the Cloud: Design Decisions for Cloud Computing Service Models (SaaS, PaaS, and IaaS)*. New Jersey: John Wiley.

Naik, U., & Shivalingaiah, D. (2008). *Comparative study of Web 1.0, Web 2.0 and Web 3.0.* Paper presented at the The 6th International CALIBER 2008, University of Allahabad, Allahabad.

Paul M.P & Jabhekar, A. (2001). *Internet for libraries and information centres*. New Delhi: McGraw Hill.

Peter K. R. (2011). *Social networking.* New York: The Rosen Publishing Group.

Peterson, L. L. (2011). *Computer networks: A systems approach*. UK: Morgan Kaufmann.

Shelly, G.B., & Frydenberg, M. (2011). Web 2.0: concepts and applications. Boston: MA: course Technology.

Solomon, G., & Schrum, L. (2010). *Web 2.0 how-to for educators.* Eugene, O.R : International Society for Technology in Education.

Tanenbaum, A. S. (2010). *Computer networks*. 5th Ed. New York: Pearson.

Vossen, G., & Hagemann, S. (2007). *Unleashing Web 2.0: From concepts to creativity*. Amsterdam: Elsevier/Morgan Kaufmann.

Xavier, C. (2000). *World Wide Web design with HTML.* New Delhi: TMH.

Soft core

25LSP504: WEB TECHNOLOGIES AND TOOLS (PRACTICE)

Learning Objectives (LO):

- To introduce the concept of computer network and network protocols;
- To understand the Internet tools, services and techniques;
- To gain the practical skill of searching databases using different search techniques;
- To understand the web technologies and markup languages like HTML, XML, DHTML, XHTML;
- To impart practical training in design and hosting of web pages;
- To provide hands on training in content management using any web content management tools;
- To make them familiar with cutting edge tools;
- To familiarize students with plagiarism detection tools.

Course Outcomes (CO):

CO1 Familiarizing students with Internet tools, services and online databases;

CO2 Knowledge of web design and web hosting tools like HTML and WordPress along with the practical skill of web content management systems like Drupal / Joomla;

CO3 Practical knowledge of different cutting edge tools;

CO4 Overall knowledge of application of web tools and services of library and information centres.

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Unit 1	:	**Networking,** Internet tools and services, online database searching: Web directory, Web OPACs, WorldCat, and IndCat.	12 hrs
Unit 2	:	Web design and Web hosting: HTML/WordPress and **free web hosting sites.**	20 hrs
Unit 3	:	Web Content Management Systems (CMS): Drupal / Joomla	20 hrs
Unit 4	:	**Cutting edge tools and LIS services: Virtual reference service, Translation, language and grammar checking tools;** Plagiarism detection tools.	10 hrs
		Total	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓				✓					
CO3	✓				✓					
CO4	✓				✓				✓	

25LSP505: RESEARCH METHODOLOGY IN LIS (PRACTICE)

Learning Objectives (LO):

- To provide the basic knowledge of research in the field of library and information science;
- To familiarize students with the identification and formation of the research problems;
- To identify the relevant literature and different methods of literature review;
- To state the research objectives and hypotheses;
- To familiarise the variables and scaling techniques through the construct of structured questionnaire;
- To get acquittance with the statistical tools and its application in data analysis;
- To develop the practical skills of writing and referencing using the conventions of APA style and reference management tools like Mendeley, Zotero;

Course Outcomes (CO):

CO1 Understand the formulation of research problems, research objectives, and hypotheses;

CO2 Capable to search, synthesize, and review the relevant literature and identify the gaps;

CO3 Practical knowledge of various data collection tools and construction of questionnaire;

CO4 Familiar with writing, citing, and referencing using style manual and acquaintance with SPSS/PSPP, Mendeley/Zotero.

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Unit 1	**:**	**Identification and selection of research problem;** Review of literature; Formulation of research objectives, hypotheses.	20 hrs
Unit 2	**:**	Design of a questionnaire.	10 hrs
Unit 3	**:**	Acquaintance and hands-on experience with SPSS/PSPP.	20 hrs
Unit 4	**:**	Report writing; Reference management tools: Mendeley / Zotero.	12 hrs
Total			**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				✓						
CO2				✓						✓
CO3				✓						✓
CO4				✓						

25LSP506: TECHNICAL WRITING (PRACTICE)

Learning Objectives (LO):

- To understand the concept, functions and components of technical writing;
- To understand the technical writing process;
- To know the structure and different types of technical papers;
- To develop the technical writing skill;
- To gain the knowledge of communication and presentation;
- To know the ethics to be followed in technical writing;
- To know the best possible style that can be adopted in writing;

Course Outcome (CO):

CO1 Get the practical idea of structuring different technical papers;

CO2 Understand the design and formatting of technical papers;

CO3 Get the skills of using digital tools for technical writing;

CO4 Gain the skill of presentation and communication of technical report.

Unit 1	:	**Structuring the technical document.**	14 hrs
Unit 2	:	**Document design and formatting.**	16 hrs
Unit 3	:	**Digital tools for technical writing.**	16 hrs
Unit 4	:	**Writing reports and presentation.**	16 hrs
		Total	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				✓	✓					
CO2				✓	✓					
CO3				✓	✓					
CO4				✓	✓					

Open elective

25LSE507: ACADEMIC WRITING AND PUBLISHING

Learning Objectives (LO):

- To identify the key features of academic writing, including formal tone, structure, and objectivity;
- To demonstrate the ability to plan, draft, and revise academic texts;
- To edit and proofread written work for grammar, punctuation, coherence, and adherence to academic style guidelines;
- To understand the structure and organisation of academic papers;
- To train the students in design and formatting of academic paper;
- To gain the knowledge of academic and publication ethics;
- To apply appropriate citation and referencing techniques using recognized academic styles.

Course Outcomes (CO):

CO1 Introduce the principles and conventions of academic writing, including structure, tone, style, and formality appropriate to scholarly communication;

CO2 Encourage revision and editing as key stages of the writing process, focusing on grammar, coherence, clarity, and formatting;

CO3 Raise awareness about academic honesty and plagiarism, and equip students with tools to avoid unethical practices in research and writing;

CO4 Identify the structure and formatting of academic papers following APA, MLA, CMOS, IEEE, and develop skills in using tools for academic writing.

Unit 1	:	**Introduction to academic writing:** - **Concept, purpose, importance, types, key elements, and audience in academic writing;** - **Formality, objectivity, tone, and structure;** - **Good academic and research practices;** - **Academic writing process: Planning, drafting, editing, and**	12 hrs

		proofreading, final submissions; - **Language and writing skills: Grammar, semantics, diction, syntax, sentence structure, readability;** - **Aberration in technical writing.**	
Unit 2	**:**	**Structuring academic texts:** - **Types of academic papers: Research articles, review papers, case studies, research reports, project reports, theses and dissertations;** - **Structure and organisation of manuscripts: Title, abstract, keywords, introduction, literature review, methodology, results, discussion, conclusion, and references.**	12 hrs
Unit 3	**:**	**Designing and formatting:** - **Elements of page design, basic design guidelines, developing a style sheet;** - **Using visual aids: Tables, line graphs, bar graphs, pie charts, and illustrations;** - **Defining, describing, and providing set of instructions including footnotes and end notes, summarizing.**	12 hrs
Unit 4	**:**	**Academic and publication ethics:** - **Concept, definition, and importance;** - **Publication misconduct: Falsification Fabrication and Plagiarism (FFP), redundant publication;** - **Committee for ethical guidelines: COPE, WAME, ICMR;** - **Predatory publishers and journals;** - **Citation and referencing: APA, Chicago, MLA, IEEE;** - **Referencing tools: Zotero, Mendeley, JabRef.**	12 hrs
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				✓						
CO2				✓						
CO3				✓						
CO4				✓						

References

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). https://doi.org/10.1037/0000165-000

Azeez, E. P. (2017). Academic writing and publishing in India: Is quality a touchstone? *Journal of Community Positive Practices, 17*(1), 13–24.

Barua, N. M. (2022). Academic writing needs of research scholars in an Indian university. *Journal of English Language Teaching, 64*(5), 33–42. https://doi.org/10.5281/zenodo.8267960

Butcher, J., Drake, C., & Leach, M. (2020). *Butcher's copy-editing: The Cambridge handbook for editors, copy-editors and proofreaders* (4th ed.). Cambridge University Press.

Dutta Kumar, S. (2023). Academic and research writing. New Century Publications.

Friedrich, P. (Ed.). (2019). Teaching academic writing (South Asia ed.). Bloomsbury India.

Goantiya, J., & Vishwakarma, V. K. (2023). Exploring the mechanics of academic and research writing. *Greener Journal of Educational Research, 13*(1), 29–34.

Husain, N. (2021). *Fundamentals of academic writing*. Shipra Publications.

IISRR. (n.d.). *Guidelines for authors. International Journal of Researches*. Retrieved from iisrr.in

INFLIBNET Centre. (n.d.). *Shodhganga: Indian digital repository of theses and dissertations*. Retrieved from Shodhganga.org

Kakkireni, N. (2020). The need for a course in academic writing: Perceptions of undergraduate engineering students. *Journal of English Language Teaching, 62*(2), 15–22. journals.eltai.in

Kamler, B., & Thomson, P. (2006). *Helping doctoral students write: Pedagogies for supervision*. Routledge.

Kanvaria, V. K. (Ed.). (2018). *Academic writing, anti-plagiarism and citations*. Shipra Publications.

Majumdar, S. (2018). College: Pathways of possibility. HarperCollins India.

Modern Language Association. (2021). *MLA handbook* (9th ed.). Modern Language Association of America.

OUP India. (2010). *Effective Academic Writing 3: The Essay* (2nd ed.). Oxford University Press.

Peat, J., Elliott, E., Baur, L., & Keena, V. (2002). *Scientific writing: Easy when you know how*. BMJ Books.

Purdue Online Writing Lab. (n.d.). *APA formatting and style guide*. Purdue University. https://owl.purdue.edu/owl/general_writing/academic_writing/index.html

Raman, B. (2012). Document Raj: Writing and scribes in early colonial South India. Permanent Black.

Read, S. H. (2024). Academic Writing Skills for International Students (India ed.). Bloomsbury Academic.

Savage, A., Mayer, P., Shafiei, M., Liss, R., Davis, J. (2010). Effective Academic Writing Student Book (2nd ed., Indian ed.). Oxford University Press.

Semalty, A. (n.d.). *Academic Writing (With Research & Publication Ethics)* [Course]. SWAYAM. onlinecourses.swayam2.ac.in

Semalty, A. (n.d.). *Academic writing* [MOOC e-text]. HNB Garhwal University. https://onlinecourses.swayam2.ac.in/cec21_ge18/preview?utm_source=chatgpt.com

Singhal, S., & Kalra, B. S. (2021). Publication ethics: Role and responsibility of authors. *Indian Journal of Gastroenterology, 40*(1), 1–7.

Srujan, M. J. (2022). *Academic research writing artistry*. Indian Book Critics.

Subramanian, S., & Hegde, A. (2022). *Writing manuscripts better: Part I. Journal of Indian Rheumatology Association, 17*(6), 292–297.

Turabian, K. L. (2018). *A manual for writers of research papers, theses, and dissertations: Chicago style for students and researchers* (9th ed.). University of Chicago Press.

University of Chicago Press. (2017). *The Chicago manual of style* (17th ed.). University of Chicago Press.

Verma, A. (2016). Developing academic reading skills among UG students in Mumbai University. *Journal of English Language Teaching, 58*(3), 23–31.

FOURTH SEMESTER

Hard Core

25LSH551: INFORMATION SYSTEMS AND SERVICES

Learning Objectives (LO):

- To familiarize students with the meaning, definition, use and implications of information systems;
- To understand the structure and components of information systems;
- To study the various information institutions;
- To study the activities of national documentation centres;
- To understand resource sharing, networks and library consortium;
- To know the different types of information services;
- To learn the different information systems and databases.

Course Outcomes (CO):

CO1 Able to understand the components and different types of information systems;

CO2 Understand the different types of information services, good qualities possessed by the reference librarian;

CO3 Gain the knowledge of resource sharing, networking, and library consortium of national and international level;

CO4 Knowledge of different documentation centres, information systems and databases involved in provision of information services.

Unit 1	:	**Information systems:** – Concepts, meaning, objectives, functions, and components; – **Information institutions**: Libraries, documentation centres, **data centres, clearing houses, referral centres**, **information centres**, **translation centres**, and open archives.	12 hrs
Unit 2	:	Information services: - Reference service: Meaning, definitions, need, purpose, **theories**, and types; - Reference process: Steps in providing reference services,	12 hrs

		qualities of a reference librarian; – Alerting services: Current awareness service, selective dissemination of information; – Document delivery service, translation service, referral service, **Inter-library loan, reprographic service, bibliographic service, indexing and abstracting service**, online library services.	
Unit 3	:	**Library networking, resource sharing, and consortia:** – Library networks: Meaning, definitions, the study of various library and information networks – National: INFLIBNET, DELNET; International – CALIS, JANET, OCLC; – Resources sharing: Meaning, definitions, objectives, advantages, and disadvantages; – Library consortia: Meaning, definitions, objectives, types, study of various library consortia; – National: NKRC, HELINET, CeRA, ICMR, E-ShodhSindhu, **ONOS**; – International: RLUK, ICOLC, EIFL, SANLIC, CARLI, etc.	12 hrs
Unit 4	:	**Information systems and national documentation centres:** – INIS, BIOSIS, INSPEC, ERIC, AGRIS, MEDLINE, and ENVIS; – **NIScPR**, DESIDOC, NASSDOC, and NIMSME.	12 hrs

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				✓						
CO2	✓		✓	✓						
CO3			✓							
CO4	✓			✓						

References:

Dhiman A.K. & Rani Y. (2005). *Reference sources and services.* New Delhi: Ess Ess Publications.

Guha, B. (1983). *Documentation and information: Services, techniques and systems*. Calcutta: World Press.

Gupta, B. M. et al. (1991). *Handbook of libraries, archives, information centres in India.* New Delhi: Aditya Prakshan.

Katz, W A (1992). *Introduction to Reference Work*. New York: McGraw- Hill.

Krishan Kumar. (1990). *Reference service*. New Delhi: Vikas.

Neelameghan, A. & Prasad, K. N. (Eds.). (2005). *Information systems and services in India*. Bangalore: SRELS.

Ranganathan, S.R. (1992). *Reference Service*. Bangalore: SRELS.

Rowlay, J E & Turner. (1987). *Reference service and sources of information*. New Delhi: EssEss.

Sharma, J S. & Grover, D. R. (1992*). Reference service and sources of information*. New Delhi: EssEss publications.

Singh G (2013). *Information sources, services and systems.* Delhi: PHI learning Pvt.ltd.

Singh, S. (1997). *International manual of reference and information services*. Delhi: Beacon.

Subramanayam, K/ (2001). *Scientific and Technical Information Resources*, New Delhi: Anmol.

Sunitha, A. (1998). *Documentation services in India: A review of some selected documentation centres.* New Delhi: Academic Publications.

Vickery, B. C. (1987). *Information systems*. London: Butterworths.

Walford, A.J. (1990). *Guide to reference materials,* London: Library Association.

25LSH552: DIGITAL LIBRARIES

Learning Objectives (LO):

- To provide an understanding of digital libraries, including their meaning, purpose, planning, and implementation;
- To understand the infrastructure and communication tools and techniques required and used for digitisation in specific type of libraries;
- To elaborate on process of digital contents and organization of library materials;
- To understand digital collection development, metadata standards, digitization practices, and digital preservation;
- To examine current trends, challenges, and future directions in digital libraries;
- To familiarize students with open sources digital library software;
- To study the differentiate between terms like digital library, virtual library, hybrid library and traditional library;

Course Outcomes (CO):

CO1 Explain the fundamental concepts of digital libraries and its design, implementation and infrastructure required to develop digital library;

CO2 Familiar with metadata and other standards to create digital libraries and open sources software available for creating digital repositories;

CO3 Critically assess emerging trends such as AI, blockchain, and mobile platforms in digital library development;

CO4 Evaluate the legal, ethical and policy issues in managing/accessing digital contents.

Unit 1	**:**	**Digital library:** - **Meaning, definition, objectives, functions, scope;** - **Infrastructure required for setting up a digital library: Selection of hardware and software, skilled manpower and training, cost, physical equipment, digital materials;** - **Major digital library initiatives;** - **Advantages and disadvantages of digital library.**	**12 hrs**
Unit 2	**:**	**Design and organization of digital library:** - **Digital collections: Selection criteria and policies, collection**	**12 hrs**

		building strategies; - **Digital content creation: Electronic documents, file formats, access management, and digital objects;** - **Architecture, interoperability, user interfaces;** - **Digitisation process;** - **Digital storage: Archiving and preserving digital collections;** - **Concept, types, and features of digital library software;** - **Open-source digital library software: GSDL, DSpace, EPrints, and Omeka.**	
Unit 3	**:**	**Digital library standards:** - **Metadata standards: Dublin Core, MARC21, MODS, and METS;** - **Interoperability protocols: OAI-PMH, OAI-ORE, SRU/SRW, Z39.50;** - **Digital object identifiers and persistent identifiers: DOI, ARK, URN;** - **Standards for digital preservation: OAIS, PREMIS, VRA, and ISO 16363;** - **File format standards: Text - RDF, XML, TEI, JSON; Images - TIFF, JPEG2000; Audio/Video- WAV, MP4; Web content accessibility guidelines.**	**12 hrs**
Unit 4	**:**	**Current trends and challenges of digital library:** - **AI and machine learning in digital Library;** - **Digital library and semantic web;** - **Implementation of deep learning, Internet of things, cloud computing, and other application in digital library;** - **Intellectual property right, copyright, licensing, and fair use in digital libraries, digital rights and access management, legal issues, and creative commons;** - **Data privacy and access restrictions, data security - Backup and restore, storage, database and file privileges.**	**12 hrs**
		Total	**48hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓				✓					
CO2	✓				✓					
CO3					✓				✓	
CO4							✓			

References:

Barik, N., & Das, A. K. (2014). *Digital libraries in knowledge management*. SSDN Publishers & Distributors.

Bhattacharyya, G. (2007). *Digital library: A practical approach*. Aavishkar Publishers.

Bishop, A. P. et al. (eds.). (2005). Digital library use: social practice in design and evaluation. Delhi: Ane Books.

Chowdhury, G. G., & Chowdhury, S. (2003). *Introduction to digital libraries*. Facet Publishing.

De, S. (2015). *Digital libraries: Principles and practice*. Ess Ess Publications.

Deegan, M., & Tanner, S. (2006). Digital preservation. London: Facet Publishing.

Gopinath, M. A. (2003). *Digital libraries and knowledge organization*. Allied Publishers.

Jayaprakash, A. (2002). *Digital libraries and multimedia*. Gyan Publishing House.

Jones, R., et al. (2006). The Institutional repository. Oxford: Chandos Publishing.

Judith, A., & Derek, L. (2004). Digital libraries. Hants: Ashgate.

Kaul, H. K., & Pattnaik, K. N. (2011). *Digital libraries and repositories: A case study of India*. DELNET – Developing Library Network.

Krishan G. (2005). Intellectual freedom in digital libraries. Delhi: Authors Press.

Krishnamurthy, M. (2008). *Open access, digital repositories and scholarly communication: A developing country perspective*. Chandos Publishing (India edition).

Kumar, K. (2011). *Digital libraries and information access*. B. R. Publishing Corporation.

Lakshmi, V., & Jindal, S. C. (2004). Digital Libraries. Delhi: Isha Books.

Mahapatra, P. K. (2006). *Digital libraries in electronic information era*. Current Publications.

Mittal, R. (2013). *Digital library: Modern tools and technologies*. Commonwealth Publishers.

Pandey, V. C. (2004). Digital Technologies and teaching strategies. Delhi: Isha Books.

Rajagopalan, A. (2006). Library of the digital age: Issues and challenges. Delhi: SBS Publishers.

Ramesh Babu, B. (2005). *Digital libraries: Concepts and technologies*. T.R. Publications.

Satyanarayana, N. R. (2005). *Information technology and digital libraries*. Swastik Publications.

Seetharama, S. (2004). *Digital libraries: Design, principles and practices*. Ess Ess Publications.

Sharma, P. S. G. (2012). *Digital library: Development and management*. Shree Publishers & Distributors.

Singh, S. P. (2014). *Digital library initiatives in India*. Ess Ess Publications.

Tripathi, A., & Jeevan, V. K. J. (2009). *Digital libraries: Managing content and community resources.* The Energy and Resources Institute (TERI).

Witten, I. H. & Bainbridgw, D. (2003). How to build a digital library. Morgan Kaufman Publishing, San Francisco.

Soft Core

25LSP553 DIGITAL LIBRARIESY (PRACTICE)

Learning Objectives (LO):

- To impart practical skills for creating and managing digital libraries;
- To provide hands-on experience in installing and configuring digital library software;
- To modify digital library user interfaces and customize content layout, themes, and navigation to improve user experience;
- To create and modify the collections, sub collections and its different levels;
- To create, edit, and manage metadata using standards to ensure consistency and interoperability;
- To digitize documents and media files using scanners and OCR tools, and upload them to a digital library platform with appropriate metadata;
- To provide overall training in digitization, metadata creation, and interface customization.

Course Outcomes (CO):

CO1 Install, configure and overall setting of open-source platforms for creating digital libraries and generate structured metadata;

CO2 Upload digital items into repositories and organize them within appropriate collections, applying subject classification and keywords;

CO3 Configure user roles, content licensing, and access restrictions to manage content visibility and user access;

CO4 Design, build, and present a functional digital library project, incorporating all major components and processes learned.

Unit 1	:	**Installation of digital library software: GSDL / DSpace/ EPrints / Omeka;** **Hands on practice of digital library creation: GSDL / DSpace/ EPrints / Omeka.**	22 hrs
Unit 2	:	**Building collection in digital library software: GSDL / DSpace/ EPrints / Omeka.**	20

Unit 3	:	**Modifying user interface: Customizing digital library user interfaces.**	10 hrs
Unit 4	:	**Creating metadata and searching, indexing.**	10 hrs
		Total	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	**PO**									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					✓					
CO2					✓					
CO3					✓		✓			
CO4					✓				✓	

25LSP554: INFORMATION SOURCES (PRACTICE)

Learning Objectives (LO):

- To enable the students to examine a realistic information problem in practice;
- To develop skills to carry out information searches using various database;
- To get acquainted with a variety of information sources;
- To learn how to evaluate information sources based on criteria for evaluation;
- To get practical experience in preparation of newspaper clippings;
- To gain the practical experience of abstracting and indexing of information resources;
- To get practical experience in compilation of bibliographies;

Course Outcome (CO):

CO1 Gain knowledge of searching and identifying different sources of information;

CO2 Understand the criteria for evaluation of information sources and websites;

CO3 Get practical experience of abstracting and indexing and newspaper clippings;

CO4 Overall practical knowledge of handling different information sources.

Acquaintance with various sources of information and evaluation of information sources.

(Each student shall compulsorily maintain the practical record and submit the same before the commencement of theory examination)

Unit 1	:	**Searching and identifying the authentic information sources.**	12 hrs
Unit 2	:	Evaluation of information sources: Print, electronic and websites.	20 hrs
Unit 3	:	**Abstracting and indexing of electronic information resources.**	20 hrs
Unit 4	:	Preparation of newspaper clippings.	10 hrs
		Total	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	✓	✓	✓							
CO2			✓	✓						
CO3	✓									
CO4	✓	✓	✓							

25LSP555: PROJECT WORK AND VIVA VOCE

Learning Objectives (LO):

- To determine mode and methods for primary do familiarize students with formulating of research questions and statement of problem;
- To understand scientific method of literature research;
- To design suitable research methods, determine sample size and design appropriate research instrument;
- To determine mode and methods for primary data collection from the target population;
- To know creation of database responses from respondents and decide about tools and techniques for data analysis;
- To understand methods of interpretation of results of data analysis in a meaningful manner;
- To develop writing skills for presenting research findings through submission of dissertation, which will be evaluated for award of degree.

Course Outcome (CO):

CO1 Apply theoretical knowledge of research methodology into practice to formulate research problem, hypotheses;

CO2 Conduct literature search and review scientifically;

CO3 Design suitable research methodology including sample size and research instrument to collect data;

CO4 Apply suitable statistical tools and techniques for data analysis and interpretation and reporting research findings.

The students are required to select a topic for the project work in the beginning of the 3rd semester in consultation with respective assigned guide and work two hours per week and prepare the synopsis during the 3rd semester of the programme. The final project report has to be submitted to the department/University before the commencement of the 4th semester examination. The project report will be evaluated jointly by the external and internal examiners for 50 marks followed by a Viva Voce examination for 20 marks. **62hrs.**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				✓						
CO2				✓						
CO3				✓						
CO4				✓						✓

25LSP556: PRACTICAL EXPERIENCE AND STUDY TOUR / INTERNSHIP

Learning Objectives (LO):

– Any library work experience serves the purpose of both – the student as well as the library. It is supposed to add value to both the parties. The objectives of internship and library tours are:

- To increase the knowledge and skills of recent graduates;
- To upgrade their skills in a specific area of information service;
- To train them in order to boost their efficiency;
- To train them to adapt to the existing working conditions.

Course Outcome (CO):

CO1 Gain practical experience of working in real libraries;

CO2 Validate or compare their classroom learning in real library activities;

CO3 Gain knowledge of activities performed in different types of libraries like a university, professional, research, and public libraries;

CO4 Enable to critically analyse library policies, functions, activities, services, and processes of different libraries.

a) **Work experience:** The M.Lib.I.Sc. students shall work 6 (six) hours per week in a library identified by the department and submit the work experience report before the commencement of theory examinations. b) **Study tour:** There shall be a library tour, which is compulsory, and the student has to submit a tour report. Each student shall prepare a study tour report under the guidance of the teacher and submit the same before the commencement of the theory examinations. **70 Marks** **OR** c) **Internship:** Students are required to undergo internship in different libraries selected by the department. The duration of the internship will be one month. Internship will be arranged after semester end examination (completion of all theory and practical exam). Each student shall prepare an internship report and submit the same within the stipulated time. **70 Marks**	**62hrs**

Mapping of course outcomes (COs) with program outcomes (POs):

CO-PO Mapping

CO	PO									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1								✓		✓
CO2				✓				✓		
CO3	✓									✓
CO4		✓	✓				✓			

Distribution of internal assessment marks

For all theory papers:

Attendance 76% - 85% - 2 Marks 86%-95% - 3 Marks 96% - 100% - 5 Marks	**05 Marks**
Two internal tests	**15 Marks**
Two assignments	**05 Marks**
One seminar	**05 Marks**

For all practical papers:

Attendance 76% - 85% - 2 Marks 86%-95% - 3 Marks 96% - 100% - 5 Marks	**05 Marks**
Two internal tests	**15 Marks**
Practical records	**10 Marks**

25LSP555: Dissertation and Viva voce:

Attendance 76% - 85% - 4 Marks 86%-95% - 6 Marks 96% - 100% - 10 Marks	**10Marks**
Topic selection, review of literature, methodology used	**20 Marks**

25LSP556: Practical experience and study tour / Internship

Attendance 76% - 85% - 4 Marks 86%-95% - 6 Marks 96% - 100% - 10 Marks	**10Marks**
Work experience and study tour dairy also overall performance	**20 Marks**

****