

**MANGALORE**  **UNIVERSITY**

**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**

**Syllabus**

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

**(Two Years – Four Semesters)**

**Under  
Choice Based Credit System (CBCS)**

**From the academic year 2022 - 2023 onwards**

The Department of Library and Information Science was established in the year 1982. It has conducted one-year Bachelor of Library and Information Science (B.L.I.Sc.) course from 1982 to 1996 and one year Master of Library & Information Science (M.Lib.I.Sc.) course from 1990 to 1997. Integrated two years M.Lib.I.Sc. course was introduced in 1996. The Department also offers doctoral (Ph.D.) programme, and has so far produced 56 (Fifty six) doctorates. It has been continuously revising and updating the syllabus incorporating the latest and recent developments in the thrust area of Information and Communication Technology (ICT), Information Technology, E-Resources and Services in the discipline of Library and Information Science from time to time.

The Department Mission is to;

- prepare library and information professionals who meet the challenges of contemporary librarianship in the knowledge society of the networked era.
- the department has excellent infrastructure, facilities, and learning environment.
- the department has practice-led teaching supported by practice-led learning.
- on the hand training and learning in online and offline resources, computer, internet, and latest library software training facilities.
- exposure to the most advanced techniques in the field of librarianship.
- the department has highly qualified, experienced and dedicated teaching faculty.

### **Thrust Areas of Research:**

Research is being conducted in the areas of:

- Digital libraries,
- E-Resources and services,
- Information Communication Technology (ICT)
- Information literacy
- Information sources and services,
- Knowledge organization and management
- Metric studies,
- User studies, etc.
- Web technologies

### **Programmes Offered**

- Two years M.Lib.I.Sc. (Master of Library & Information Science) Programme
- Ph.D.

**Note: Specification of degrees as per UGC notification dated March 2014 published in the Gazette of India, July 5<sup>th</sup>, 2004 (Part III section 4)**

## **Program Learning Outcomes**

The basic philosophy of any library is to serve and satisfy the information needs of information seekers. Library and information professionals must be aware of diverse information needs and ensure those needs are met. The dept. of library and information science equips students with the necessary knowledge and skills to accomplish this across a broad range of occupations and contexts in all types of library and information centres (public, academic, special S & T, R & D, health etc.). The university's LIS graduates understand both the theory and the practice of LIS as a discipline:

- 1) They study the foundations and principal ideas of the discipline, and they are introduced to the values and expectations of the profession.
- 2) The faculty members foster critical thinking about the literature of LIS and related fields, and they encourage high standards of professionalism and service
- 3) The LIS graduates of the Mangalore University are prepared to develop and evaluate resources and programs and to understand the needs of different kind of users.

Students who have completed LIS program are equipped to anticipate social and technological changes, and to promote change that advances the profession, improves technology, and encourages positive social transformation.

## **Programme Specific Outcome**

PSO1: Understand the basic concept of library and information science professions.

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: Training the manpower in capturing and preserving the tacit knowledge in the light of the emphasis on the importance of traditional knowledge. Restructuring and reviewing LIS curriculum to cope up with changing socio- economic, cultural and technological environment.

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

PSO6: Analyze 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.

## Programme Structure

### FIRST SEMESTER

Course code	Title of the Course	Scheme of examination						Credit Value
		IA	Univ. Exam.	Total Marks	Credit Patten			
					L	T	P	
<b>Hard Core</b>								
LSH401	Foundations of Library and Information Science	30	70	100	3	1	0	4
LSH402	Information Technology	30	70	100	3	1	0	4
LSH403	Knowledge Organization: Classification	30	70	100	3	1	0	4
LSS404	Information Sources	30	70	100	3	1	0	4
<b>Soft Core</b>								
LSP405	Information Technology (Practice)	30	70	100	0	1	3	4
LSP406	Knowledge Organization: Classification-I (Practice)	30	70	100	0	1	3	4
Total		180	420	600	10	6	6	<b>24</b>

### SECOND SEMESTER

Course code	Title of the Course	Scheme of examination						Credit Value
		IA	Univ. Exam.	Total Marks	Credit Patten			
					L	T	P	
<b>Hard Core</b>								
LSH451	Information Processing: Cataloguing	30	70	100	3	1	0	4
LSP452	Information Processing: Cataloguing-I (Practice)	30	70	100	0	1	3	4
LSP453	Knowledge Organization: Classification-II (Practice)	30	70	100	0	1	3	4
<b>Soft Core</b>								
LSS454	Management of Libraries and Information Centres	30	70	100	3	1	0	4
LSS455	Information Literacy	30	70	100	3	1	0	4
<b>OR</b>								
LSS456	Academic Library System							
<b>Open Elective</b>								
LSE457	Reference / Information Sources	30	70	100	3	0	0	3
Total		180	420	600	12	5	6	23

### THIRD SEMESTER

Course code	Title of the Course	Scheme of examination						Credit Value
		IA	Univ. Exam.	Total Marks	Credit Patten			
					L	T	P	
<b>Hard Core</b>								
LSH501	Information Retrieval	30	70	100	3	1	0	4
LSH502	Methods in LIS Research	30	70	100	3	1	0	4
LSP503	Information Processing: Cataloguing-II (Practice)	30	70	100	0	1	3	4
LSP504	Methods in LIS Research (Practice)	30	70	100	0	1	3	4
<b>Soft Core</b>								
LSS505	Conservation and Preservation of Information Resources	30	70	100	2	1	0	3
<b>OR</b>								
LSS506	Special Library System							
<b>Open Elective</b>								
LSE507	Electronic Information Resources and Services	30	70	100	3	0	0	3
Total		180	420	600	12	5	6	22

### FOURTH SEMESTER

Course code	Title of the Course	Scheme of examination						Credit Value
		IA	Univ. Exam.	Total Marks	Credit Patten			
					L	T	P	
<b>Hard Core</b>								
LSH551	Information Systems and Services	30	70	100	3	1	0	4
LSP552	Web Technology	30	70	100	0	1	3	4
LSP553	Web Technologies (Practice)	30	70	100	0	1	3	4
LSP554	Information Sources (Practice)	30	70	100	0	1	3	4
<b>Soft Core</b>								
LSS555	Dissertation and Viva Voce	30	70	100	3	1	0	4
LSS556	Practical Experience / Internship and Library Tour	30	70	100	0	0	4	3
Total		180	420	600	6	5	13	23

### Total Credits of all the semesters

First Semester	24
Second Semester	23
Third Semester	22
Fourth Semester	23
<b>Total</b>	<b>92</b>

# FIRST SEMESTER

## Hard Core

### LSH401: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

#### Learning Objectives:

- 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 provide students an understanding of philosophies of library science, its basic principles; fundamental laws, guidelines, and social impact;
- To understand the importance of library associations/organizations and their role in lifelong learning;
- To educate students about growth, development of libraries, and library professional ethics;
- To train students for a professional career in library and information services;
- To understand the library and information science profession.

#### Course Outcome (CO):

- CO1 Gain a clear understanding of LIS as professional education, its values, and philosophies that govern the activities in the practicing world;
- CO2 Obtain a proper understanding of the functions and services of various types of libraries;
- CO3 Differentiate functions and activities between different types of libraries;
- CO4 Gain knowledge about different library legislation, Acts, IPR, and copyright;
- CO5 Understand the activities, roles, and responsibilities of different professional associations in LIS;
- CO6 Have the knowledge of public relations and library extension activities;
- CO7 Understand the basic philosophy and principles of LIS professionalism.

Unit 1	: <b>Library as a Social Institution:</b> <ul style="list-style-type: none"><li>- Social and historical foundations of libraries;</li><li>- Role of libraries in social, cultural, educational and scientific technical development;</li><li>- Information society: Data, information, and knowledge, concept, meaning and features;</li><li>- Development of libraries in India with special reference to Karnataka;</li><li>- Different types of libraries and their functions and services.</li></ul>	08hrs
--------	--	-------

Unit 2 :	<b>Five Laws of Library Science:</b>  – Implications of five laws in library and information science.	06hrs
Unit 3 :	<b>Library Legislation:</b>  – Need, purpose and features; – Library legislation in India - Problems and prospects; – Public library Acts in India. – Karnataka public library Act of 1965. – Press and registration Act and delivery of books (public libraries) and newspaper Act, 1954 and 1956. – Copyright act and Intellectual Property Rights (IPR). – Right to Information Act.	08hrs
Unit 4 :	<b>Library and Information Science Profession:</b>  – Attributes of a profession; – Librarianship as a profession; – Professional ethics and qualities; – LIS education and – LIS research.	08hrs
Unit 5 :	<b>Professional Associations:</b>  – Objectives and functions; – Role of professional associations in library development; – State library association – KALA; – National library associations - ILA, IATLIS, IASLIC; – International library associations – IFLA, ALA, LA.  <b>Promoters of Library and Information Services:</b>  – National level – RRRLF; – International level – UNESCO.	10hrs
Unit 6 :	<b>Public Relations and Extension Activities:</b>  – Concept, definition, and scope; – Facets and programmes; – Publicity and extension, and – Outreach activities.	08hrs
	<b>Total</b>	<b>48hrs</b>

## 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.
- Venkatapaaiah, V.(1990). *Indian library legislation* (Vol. 1). Delhi: Daya publishing house.

## LSH402: INFORMATION TECHNOLOGY

### Objectives:

- To introduce the students to the basics of IT and related issues;
- To understand the fundamentals of computer hardware, and software;
- To be familiar with applications of computers and information Technology in libraries.
- To familiarize students with library automation;
- To study library software packages;
- To understand infrastructure requirements for library automation- hardware, software;
- To study information technology application to library and information work;

### Course Outcome (CO):

- CO1 Knowledge of computer hardware and its peripheral devices;
- CO2 Clear understanding of the system and application software;
- CO3 Knowledge of graphical user interface and desktop publishing;
- CO4 Able to understand basic concept of library automation; need, areas, and strategies for library automation;
- CO5 Able to understand the infrastructure requirements like hardware, software, and skilled manpower for implementing automation in libraries;
- CO6 Gain the knowledge and its features and functions of housekeeping tools like acquisitions, cataloging, OPAC, and also knowledge of their file and data structures of library automation;
- CO7 Hands on experience of library automation software packages like SOUL, Libsys, KOHA, NewGenLib, and e-Granthalaya.

Unit 1	: <b>Information Technology:</b> <ul style="list-style-type: none"><li>– IT: Concept, meaning, characteristics;</li><li>– Computers: Concept, Generations of computers.</li><li>– Basic units of computer – arithmetic/logic unit, control unit, input; unit, output unit, and memory unit;</li><li>– Internal and external storage devices.</li></ul>	06hrs
Unit 2	: <b>Computer Software:</b> <ul style="list-style-type: none"><li>– Systems software - Operating systems - MS windows, multi-user operating systems - Linux, Unix;</li><li>– Application software – word processing, spreadsheet, presentation packages, DTP;</li><li>– Free, open source and proprietary software.</li></ul>	06hrs
Unit 3	: <b>Database:</b> <ul style="list-style-type: none"><li>– Design, development, and management;</li><li>– Database models;</li></ul>	08hrs

	<ul style="list-style-type: none"> <li>– DBMS and RDBMS;</li> <li>– Data mining and data warehousing;</li> <li>– Decision Support Systems (DSS);</li> <li>– Online Analytical Processing (OLAP);</li> <li>– Types of databases - bibliographic database, full text database;</li> <li>– Access type - Online and Offline databases;</li> <li>– Database Security and Authorization.</li> </ul>	
Unit 4	<p><b>Library Automation:</b></p> <ul style="list-style-type: none"> <li>– Meaning and definition, need, purpose;</li> <li>– Advantages and disadvantages;</li> <li>– Areas of library automation,</li> <li>– Infrastructure Requirements for Library Automation: Hardware; Software; Manpower; Cost, furniture, and maintenance.</li> </ul>	08hrs
Unit 5	<p><b>Housekeeping Operations and Standards</b></p> <ul style="list-style-type: none"> <li>– Acquisitions; Cataloguing; Circulation; Serials control; OPAC/Web OPAC;</li> <li>– Application of barcode, QR code, Radio-Frequency Identification (RFID), and Near-field communication (NFC) technology for library functions, smartcard technology.</li> <li>– Standards and Specifications: ISO 2709, MARC 21, MARC XML, CCF, NACO, Z39.50, SRU/SW, SRU/SRW, NCIP (NISO), SIP2, SIP/NCIP, OAI-PMH, Unicode.</li> </ul>	10hrs
Unit 6	<p><b>Library Automation Software Packages:</b></p> <ul style="list-style-type: none"> <li>– Proprietary Software – SOUL, LIBSYS;</li> <li>– Open Source Software – KOHA, NewGenLib;</li> <li>– Free Software e-Granthalaya;</li> <li>– Criteria for evaluation of library automation software.</li> </ul>	10hrs
	<b>Total</b>	48hrs

## References:

- Ahsan, N. (2002). *Computer hardware guide*. Delhi: Educational publishing house.
- 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.
- Clements, A. (2004). *The principles of computer hardware*. New York: Oxford publications.
- 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.
- Gill, N. S. (2016). *Handbook of computer fundamentals*. New Delhi: Khanna book publishing Co.
- Gupta, S. (1995) *Manpower needs of automated libraries*. New Delhi: Ess Ess publications
- James, K. L. (2013). *Computer hardware*. Delhi: PHI Learning Pvt. Ltd.
- Kashyap, M. M. (2003). *Database systems*. New Delhi: Vikas.
- Kumar, P. S. G. (2004). *Information technology: Applications, theory and practice*. Delhi: B.R. publishing.
- Lucy, A. T. (2005). *An introduction to computer based library system*. Chichester : Wiley.
- Manjunath, G. (2010). *Computer basics*. Chennai: Vasana publications.
- 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 emphasis on networking services and information sharing*. Ahmedabad: INFLIBNET.
- 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.
- Norton, P. (2017). *Introduction to computers*. New York: McGraw Hill education.
- Pandey, V. C. (2004). *Information 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.
- Prasher, R.G (2003). *Indian libraries in IT environment*. , Ludhiana: Medallion Press.
- Rajaraman, V. (2000). *Fundamentals of computer*. New Delhi: Prentice Hall of India.
- 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.
- Subrahmanian V.S. (1998) *Principles of multimedia database systems*. Morgan Kaufman
- Tanenbaum, A. S. (2010). *Computer networks*. New Jersey: Pearson education.
- Thareja, R. (2019). *Fundamentals of computers*. Oxford: Oxford University press.

## LSH403: KNOWLEDGE ORGANIZATION: CLASSIFICATION

### Objectives:

- 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 in the design of classification schemes;
- To understand the fundamental categories;
- To understand the formation of subjects in the universe of subjects and be acquainted with major schemes of classification;
- To know the different schemes of classification;
- To develop skills of classification.

### Course Outcome (CO):

- CO1 Clear understanding of the purpose, functions and principles of subject classification;
- CO2 Knowledge of analyzing core thought content of modes of formation of subjects;
- CO3 Clear understanding of criteria of classification of subjects;
- CO4 Knowledge of recognizing different fundamental categories;
- CO5 Gain knowledge of constructing classifications numbers for different documents;
- CO6 Knowledge and skill of using different schemes of classification that can be used for organizing the resources;
- CO7 Understating of recent trends and mode of classifying e-resources.

Unit 1	:	<b>Library classification:</b> <ul style="list-style-type: none"><li>– Definition, meaning, objectives, purpose and functions;</li><li>– The general theory of classification;</li><li>– Theory of knowledge classification and book classification.</li></ul> <b>Types of Library Classification:</b> <ul style="list-style-type: none"><li>– Enumerative classification schemes;</li><li>– almost enumerative classification schemes;</li><li>– Almost faceted classification scheme;</li><li>– Faceted classification scheme;</li><li>– Rigidly faceted classification scheme;</li><li>– Freely faceted classification scheme.</li></ul>	08hrs
--------	---	---	-------

Unit 2	:	<b>Universe of Knowledge:</b>  <ul style="list-style-type: none"> <li>- Concept, meaning, and definition;</li> <li>- Structure and attributes;</li> <li>- Types of the subject: Simple, compound, and complex;</li> <li>- Modes of formation of subjects;</li> <li>- Universal knowledge as mapped in: DDC, UDC, CC.</li> </ul>	08hrs
Unit 3	:	<b>Postulation approach to classification:</b>  <ul style="list-style-type: none"> <li>- Planes of work;</li> <li>- Canons of classification.</li> </ul>	06hrs
Unit 4	:	<b>Basic Laws of Library Classification:</b>  <ul style="list-style-type: none"> <li>- Fundamental laws;</li> <li>- Canons;</li> <li>- Principles: Types of notation;</li> <li>- Fundamental categories;</li> <li>- Facet analysis and facet sequence;</li> <li>- Phase relations;</li> <li>- Common isolates.</li> </ul>	10hrs
Unit 5	:	<b>Notational system:</b>  <ul style="list-style-type: none"> <li>- Meaning and definition, need, functions, qualities, and types, Call Number, mnemonics;</li> <li>- Hospitality in array and chain, devices, systems and specials, rounds and levels.</li> </ul>	08hrs
Unit 6	:	<b>Study of selected schemes of classification:</b>  <ul style="list-style-type: none"> <li>- Dewey Decimal Classification, Universal Decimal Classification, Colon Classification;</li> <li>- Methodology for design and development of a scheme of library classification;</li> <li>- Recent trends in classification.</li> </ul>	08hrs
<b>Total</b>			<b>48hrs</b>

## 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.
- Dhyani, P. (1998). *Library classification: Theory and practice*. New Delhi: Vishwa Prakashan.
- Husain, S. (2004). *Library classification: facets and analyses*. New Delhi: B.R.Publications.
- IGNOU. (2001). *Library classification theory*. New Delhi: IGNOU.
- Joint, S. C. (2015) *RDA: Resource description and access*. London: Facet publishing.
- Kaushik, P. (2006). *Library classification*. New Delhi: Anmol publications Pvt. Ltd.
- Krishan Kumar (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.
- Maxwell, R. L. (2013). *Maxwell's handbook for RDA: Explaining and illustrating RDA: resource description and access using MARC21*. New York: ALA dition.
- 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.
- Raju, A. (1991). *Universal decimal classification*. Madras:T.R. publishers.
- 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.
- Ranganthan, S. R. (1998) *Elements of library classification*. Bangalore: SRELS.
- Ranganathan, S. R. (1988). *Classified catalogue code*. Madras, UBSPD.
- Satija, M. P. (2004). *A dictionary of knowledge organization*. Amritsar: Guru Nanak Dev University.
- Sehgal, R.L. (1993). *Number building in Dewey decimal classification universal decimal classification & colon classification*. New Delhi: ESS-ESS publication.
- Sharma, C.K. & Sharma Amit K. (2007). *Library classification*. Atalantic 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.
- Srivastav, A.P (1993). *Theory of knowledge classification*. New Delhi: Sage.
- 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.



## LSS404: INFORMATION SOURCES

### Objectives:

- To understand the concept of information sources;
- To study documentary and non-documentary sources of information;
- To familiarize students with print and electronic versions of information sources;
- To understand the Primary, secondary, and tertiary information sources;
- To know the library and information services in academic libraries;
- To study various aspects of information sources;
- To train students in handling information resources.

### Course Outcome (CO):

- CO1 Understand the basic concept, importance, characteristics, functions, and evolutions of both print and non-print sources of information;
- CO2 Gain the knowledge of primary, secondary and tertiary sources of information;
- CO3 Know the categories of information like documentary and non–documentary sources as well as the human and institutional sources of both print sources and e-resources;
- CO4 Clearly understand the major print and electronic resources related to primary sources of information;
- CO5 Understand the important secondary sources of both print & electronic versions of information sources;
- CO6 Trace the relevant tertiary sources of both print & electronic sources of information;
- CO7 Know the different non-documentary sources of human and institutional sources of information.

Unit 1	:	<b>Information Sources:</b> <ul style="list-style-type: none"><li>– Meaning, definition, importance, characteristics, functions, evaluation of information sources;</li><li>– Types of information sources.</li></ul>	06hrs
Unit 2	:	<b>Primary Sources:</b> <ul style="list-style-type: none"><li>– Periodicals, research reports, conference and seminar proceedings, official publications, patents, standards, trade literature, and theses and dissertations.</li></ul>	06hrs
Unit 3	:	<b>Secondary Sources:</b> <ul style="list-style-type: none"><li>– Indexing periodicals, abstracting periodicals, bibliographies, treatises, monographs, textbooks;</li><li>– Reference books: dictionaries, encyclopaedias, biographical sources, geographical sources.</li></ul>	06hrs
Unit 4	:	<b>Secondary Sources:</b> <ul style="list-style-type: none"><li>– Biographical sources, geographical sources, statistical sources,</li></ul>	06hrs

		current reference sources.	
Unit 5	:	<b>Tertiary Sources:</b>  – Yearbooks, Almanacs, Directories, Union catalogues. Bibliography of bibliographies;	08hrs
Unit 6	:	<b>Electronic Information Resources:</b>  – Meaning and definitions, types; – E-journals, e-books, e-encyclopedias, e-theses, e-newspapers,. Online dictionaries, blogs, wikis, and other e-resources.	08hrs
<b>Total</b>			<b>48hrs</b>

### References:

- Chenny, F.N & Williams W.J. (1980). *Fundamental reference sources*. Ed2., Chicago: ALA.
- Donald, D. (1980). *Reference service*. London: Clive Bingley.
- Fjallbrant, N. & Stevenson, 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 Pvt. Ltd.
- 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.
- 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.

## Soft Core

### **LSP405: INFORMATION TECHNOLOGY (PRACTICE)**

#### **Objectives:**

- To impart practical training in the use of software to develop bibliographic databases;
- To give practical training in the use of library automation software;
- To familiarize students with open source library software;
- To introduce students computer and its components;
- To familiarize the students with various operating systems;
- To familiarize the students about information technology and its application to Library and Information work;
- To give basic knowledge about the software aspects and library automation packages.

#### **Course Outcome (CO):**

- CO1 Able to understand and work on experience with IT products and services;
- CO2 Have the knowledge of working with computer hardware, software and CLI and GUI operating systems;
- CO3 Gain knowledge of word processing and power point presentation application;
- CO4 Knowledge of spreadsheet tools, especially MS excel used for analysis and graphical representation of data;
- CO5 Be trained to work with library automation and management tool KOHA;
- CO6 Overall knowledge of library automation and the parts of its operations using different types of software;
- CO7 Gain knowledge of both system software and application software related to library automation and management.

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

Unit 1	Command-line operating systems Unix.	06 hrs
Unit 2	GUI operating systems – Windows, Linux.	08 hrs
Unit 3	MS –Word.	10 hrs
Unit 4	MS-Excel.	06 hrs
Unit 5	MS-PowerPoint.	06 hrs
Unit 6	KOHA.	26 hrs
	<b>Total</b>	<b>62hrs</b>

## **LSP406: KNOWLEDGE ORGANIZATION: CLASSIFICATION – I (PRACTICE)**

### **Objectives:**

- To introduce the use of DDC;
- To analyze a work; direct approach; main classes, divisions and sections;
- To construct class numbers for using Dewey Decimal Classification latest edition;
- To use notes like “scope”, “Inclusion”, “Class here” “Optional provision” etc.;
- To know the synthetic features: Add from schedules;
- To use different Tables of DDC;
- To prepare call number with the construction of book numbers.

### **Course Outcome (CO):**

- CO1 Apply theoretical knowledge of classification into practice;
- CO2 Get inducted to different classification systems and apply their skills to organize documents using specific classification schemes;
- CO3 Knowledgeable and capable of using specific scheme of classification at their workplace;
- CO4 Use it for number building;
- CO5 Gain the knowledge of constructing classification numbers for different documents;
- CO6 Knowledgeable and capable of using DDC scheme of classification at their workplace;
- CO7 Understanding of recent trends and classification of e-resources.

**Classification of documents according to the latest edition of DDC.  
(Each student shall compulsorily maintain the practical record and submit the same  
before the commencement of theory examination)**

Unit 1	- Identification of Specific Subjects of the Documents.	06
Unit 2	- Classification of documents representing simple and compound.	14
Unit 3	- Classification of documents representing complex subjects.	14
Unit 4	- Use of Standard sub-division Table 1 in DDC.	08
Unit 5	- Use of Tables in DDC: From Table 2 to Table 6.	16
Unit 6	- Assigning Book Number.	04
	<b>Total</b>	<b>62hrs</b>

## SECOND SEMESTER

### LSH451: INFORMATION PROCESSING: CATALOGUING

#### Objectives:

- To be acquainted with the process of library cataloguing and metadata and its standards;
- To understand different catalogue codes and standards for bibliographic description;
- To practice cataloguing of different types of books;
- To understand the rules and practices of document description according to Anglo American Cataloguing Rules-2R;
- To study current trends in cataloguing;
- To develop skills of cataloguing;
- To study different subject headings;

#### Course Outcome (CO):

- CO1 Clear understanding of purpose, functions and procedure of library cataloguing;
- CO2 Understanding different laws and principles of library cataloguing;
- CO3 Gain knowledge about subject cataloguing and use of a subject thesaurus;
- CO4 Knowledge of applying various cataloguing codes such as RDA, AACR II, OPAC;
- CO5 Knowledge and skill of using different formats and standards that can be used for the cataloguing the resources;
- CO6 Understating of current trends in cataloguing;
- CO7 Trained in the use of different cataloguing standards and formats to catalogue documents.

Unit 1	: <b>Library Catalogue:</b> <ul style="list-style-type: none"><li>- Meaning, definition, need, purpose and functions;</li><li>- History of catalogue codes;</li><li>- Physical forms, inner forms;</li><li>- Different kinds of entries.</li></ul>	10hrs
Unit 2	: <b>Normative Principles:</b> <ul style="list-style-type: none"><li>- Laws;</li><li>- Canons;</li><li>- Principles of catalogue.</li></ul>	06hrs
Unit 3	: <b>Subject Headings:</b> <ul style="list-style-type: none"><li>- Chain procedure;</li><li>- Sears List of Subject Headings (SLSH);</li><li>- Library of Congress Subject Headings (LCSH);</li><li>- Medical Subject Headings (MeSH).</li></ul>	08hrs

Unit 4	:	<b>Study of major Catalogue Codes;</b>  <ul style="list-style-type: none"> <li>- AACR (latest edition);</li> <li>- RDA (Resource Description Access);</li> <li>- Filing rules and procedures;</li> <li>- Online Public Access Catalogue (OPAC), Web OPAC.</li> </ul>	08hrs
Unit 5	:	<b>Standardization of Bibliographic Description:</b>  <ul style="list-style-type: none"> <li>- ISBD (M), ISBD(S), ISBD (NBM);</li> <li>- Bibliographic record format: UNIMARC, CCF, MARC21 , Z39.50, FRBR;</li> <li>- Metadata - definition and meaning, types and elements.</li> <li>- Metadata standards, DCMI, MODS.</li> </ul>	10hrs
Unit 6	:	<b>Study of Cataloguing:</b>  <ul style="list-style-type: none"> <li>- Co-operative cataloguing;</li> <li>- Centralized cataloguing;</li> <li>- Union catalogue;</li> <li>- Current trends in cataloguing.</li> </ul>	06hrs
<b>Total</b>			<b>48hrs</b>

## 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 & distributors.
- Nanda, M. (2006). *Library cataloguing*. New Delhi: Anmol publications.
- Ranganathan, S.R. (1963). *Classified catalogue code with additional rules for Dictionary catalogue*. Bombay: Asia.
- Ranganathan, 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.



## **LSP452: INFORMATION PROCESSING: CATALOGUING – I (PRACTICE)**

### **Objectives:**

- To prepare catalogue entries (main, added and reference entries) for books (monographs) using Anglo American Cataloguing Rules - 2 revised edition and assigning;
- To derive Subject Headings to all entries (using at least one standard subject heading);
- To catalogue single personal authorship; joint authorship; works of more than three authors;
- To catalogue collaborative works; series; multivolume works; pseudonymous authors;
- To catalogue corporate authorship: a) government publications b) proceedings of conferences, seminars, workshops, etc. c) other corporate bodies: organizations, institutions, societies, etc;
- To catalogue uniform titles and serials.

### **Course Outcome (CO):**

- CO1 Apply theoretical knowledge of cataloguing into practice through hands-on training;
- CO2 Allow students to obtain experience of classifying documents in physical/virtual libraries;
- CO3 Clear understanding of AACR II;
- CO4 Knowledge of parts of descriptions of catalogue;
- CO5 Understanding the catalogue and their parts;
- CO6 Get inducted to different descriptive elements and punctuations for cataloguing documents;
- CO7 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 and study of Subject headings.	10 hrs
Unit 2	Single personal author.	12 hrs.
Unit 3	Shared responsibility with editorial direction.	10 hrs.
Unit 4	Series and multi volumes.	10 hrs.
Unit 5	Corporate bodies.	10 hrs.
Unit 6	Uniform titles and serials.	10 hrs.
	<b>Total</b>	<b>62hrs</b>

## **LSP453: KNOWLEDGE ORGANIZATION: CLASSIFICATION - II (PRACTICE)**

### **Objectives:**

- Construction of Class Numbers for documents of different disciplines / subjects using Universal Decimal Classification;
- To familiarize students with UDC;
- To understand basic features and syntax of UDC;
- To understand organization of classes of UDC;
- To construct class numbers using UDC;
- To familiarize common auxiliary tables;
- To understand connecting signs of UDC.

### **Course Outcome (CO):**

- CO1 Apply theoretical knowledge of classification into practice;
- CO2 Knowledge of using the analyzing core thought content of modes of formation of subjects;
- CO3 Assess the suitability of UDC as a scheme of classification for arranging library materials;
- CO4 Gain the knowledge of constructing classifications numbers for different documents;
- CO5 Understanding of recent trends and mode of classifying e-resources;
- CO6 Knowledgeable and capable of using UDC scheme of classification at their workplace;
- CO7 Understand with reference to its structure, notation, auxiliaries, synthetic devices and alphabetical index.

**Classification of Books and other documents according to the latest edition of UDC  
(Each student shall compulsorily maintain the practical record and submit the same before  
the commencement of theory examination)**

Unit 1	Introduction to the Structure of UDC.	06hrs
Unit 2	Use of Common Auxiliaries.	16hrs
Unit 3	Use of Special Auxiliaries.	12hrs
Unit 4	Construction of the Class numbers.	12hrs
Unit 5	Filing Order and Citation Order.	10hrs
Unit 6	Assignment of Book Numbers.	06hrs
	<b>Total</b>	<b>62hrs</b>

## Soft Core

### **LSS454: MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES**

#### **Objectives:**

- To train the student in the techniques of librarianship and management of library;
- To understand the application of management theories in library and information area;
- To study organizational structure of library and information centers;
- To understand technical processing and preparation of documents for use;
- To familiarize students with maintenance, preservation and conservation of information resources;
- To study record management concepts and issues;
- To study library rules and regulations.

#### **Course Outcome (CO):**

- CO1 Familiarizing students with basic principles, practices, procedures to manage different types of libraries;
- CO2 Be able to understand concepts of management, functions, and principles of scientific management;
- CO3 Gain the knowledge of organizational structure;
- CO4 Have knowledge of selection and acquisition of books and other documents;
- CO5 Have knowledge of transitions / circulation of documents;
- CO6 Able to understand the art of maintenance and preservation of documents;
- CO7 Experience the application of management theories in library management, organization or administration;

Unit 1	:	<b>Management Concept:</b> <ul style="list-style-type: none"><li>- Concept, meaning, definitions and scope;</li><li>- Management schools of thought;</li><li>- Functions and principles of management;</li><li>- Scientific management, principles of scientific management and their application to library and information centres;</li><li>- Organizational structures.</li></ul>	06hrs
--------	---	--	-------

Unit 2	:	<p><b>Library House Keeping Operations:</b></p> <ul style="list-style-type: none"> <li>- Different sections of the library and information centre;</li> <li>- Book selection and acquisition: purpose, objectives, need, and functions, book selection tools and principles of book selection;</li> <li>- Technical processing;</li> <li>- Serial control, circulation control, maintenance etc.;</li> <li>- Stock verification: policies, procedures, and methods;</li> <li>- Online bookshops: identification, advantages, online book shops vs. traditional book shops. URLs;</li> <li>- Collection development and management policies, procedures;</li> <li>- Archiving – conservation - preservation, print, and non-print materials.</li> </ul>	10hrs
Unit 3	:	<p><b>System Analysis and Design:</b></p> <ul style="list-style-type: none"> <li>- Concepts, meaning, and definitions;</li> <li>- Study of a system;</li> <li>- Performance evaluation of library and information centres;</li> <li>- Performance measurement;</li> <li>- Management of Information Systems (MIS): concept, use;</li> <li>- Project management, PERT / CPM;</li> <li>- Knowledge management.</li> </ul>	08hrs
Unit 4	:	<p><b>Human Resource Management:</b></p> <ul style="list-style-type: none"> <li>- Human resource management: meaning, definitions, and functions;</li> <li>- Job description, analysis and job evaluation;</li> <li>- Recruitment procedures;</li> <li>- Motivation, delegation, and decision making;</li> <li>- Training and development;</li> <li>- Performance appraisal;</li> <li>- Leadership qualities.</li> </ul>	08hrs
Unit 5	:	<p><b>Financial Management:</b></p> <ul style="list-style-type: none"> <li>- Sources of finance, resource mobilization budget, types of budget, budgeting techniques, PPBS;</li> <li>- Zero based budgeting, budgeting control, cost benefit analysis;</li> <li>- Marketing of information products and services: Meaning, definition, need, market segmentation, positioning, market Mix, 4P's - Product, Price, Place, Promotion, Marketing Audit.</li> </ul>	06hrs

Unit 6	:	<b>Planning of Library and Information Centres:</b>	10hrs
		<ul style="list-style-type: none"> <li>- Policies and procedures, MBO;</li> <li>- Building and space management;</li> <li>- Library statistics;</li> <li>- Library committees: importance, types, and functions;</li> <li>- Annual report: compilation, contents, and style;</li> <li>- Library building, furniture, and equipment;</li> <li>- Library rules and regulations.</li> </ul>	
		<b>Total</b>	48hrs

## 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.

- Katz, W.A. (1980). *Collection development, the selection of materials for libraries*. New York: Holt, Rinehart & Winston.
- 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.
- Shera, J. S. (1978). *Library organization*. New Delhi: Vikas.
- 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.
- Spiller, David. (1974). *Book selection: an introduction to principles and practice*. Rev. 2nd ed. London: Clive Bingley.
- Subodh, G. N. (2011). *Library Management: Recent thoughts and development*. Kaveri Books.

## LSS455: INFORMATION LITERACY

### Objective:

- To know the concept and importance of information literacy;
- To understand the historical perspectives of information literacy;
- To identify different types of information resources;
- To gain knowledge about information literacy models;
- To know the information literacy standards;
- To have knowledge about 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 Able to understand the historical perspectives of information literacy;

CO3 Able to understand the different types of information resources literacy;

CO4 Have knowledge about information literacy models;

CO5 Understanding of information literacy standards;

CO6 Have knowledge about information literacy skill and competencies;

CO7 Awareness of current trends in information literacy.

Unit 1	: <b>Information Literacy:</b>  – Meaning, definition; importance; historical perspective of information literacy.	08hrs
Unit 2	: <b>Types of Information Literacy:</b>  – Computer literacy, Media literacy, Digital literacy, Technology literacy.	08hrs
Unit 3	: <b>Information Literacy Models and Components:</b>  – SCONUL seven pillar, B-6, ANCIL, Empowering 8 Model.	08hrs
Unit 4	: <b>Information Literacy Standards:</b>  – ALA, IFLA, ACRL, Information literacy and libraries: Information literacy and higher education, Role of libraries in information literacy.	08hrs
Unit 5	: <b>Information Literacy Skills and Competencies:</b>  – Information literacy programs, Information literacy initiatives in global perspective.	08hrs

Unit 6	:	<b>Trends in Information Literacy:</b>	08hrs
		<ul style="list-style-type: none"> <li>– Current trends in information literacy;</li> <li>– Information literacy and lifelong learning;</li> <li>– Study of information literacy programs in the world including India.</li> </ul>	
		<b>Total</b>	<b>48hrs</b>

## 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 Lonsdale, 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.
- Devine, J. (2009). *Going beyond google: The invisible web in learning and teaching*. London: Facet.
- 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). *Information 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.
- Pantry, S., & Griffiths, P. (2002). *Creating a successful e-Information service*. London: Facet.
- Smith, S (2001). *Web-based instruction. A guide for libraries*. Chicago: American Library Association.
- Zorana, E. (2008). *Information literacy: Search strategies, tools & resources for high school students and college freshmen*. California: Linworth Publishing.

## LSS456: ACADEMIC LIBRARY SYSTEM

### Objectives:

- To encourage life-long learning among students to make them more knowledgeable in academic library system;
- To understand the concept, importance, functions, services and different types of academic libraries;
- To know the background of development of higher education in India;
- To acquaintance with different academic library network and consortia;
- To understand the collection development policy and technical processing;
- To provide an understanding of need, and different types of library and information service support to academic libraries;
- To study about the library finance, budgeting and infrastructure.

### Course Outcome (CO):

- CO1 Define the basic objectives of academic libraries;
- CO2 Identify the differences in school, college and university libraries;
- CO3 Explain the services and extension activities of academic libraries;
- CO4 Understanding the historical development of higher education in India;
- CO5 Awareness of different types of networks and consortia available at both national and international level;
- CO6 Able to understand the collection development policy including technical processing;
- CO 7 Gain the knowledge of library finance and infrastructure.

Unit 1	:	<b>Academic Libraries:</b>  <ul style="list-style-type: none"> <li>- Meaning, definition, importance, functions, services and types of academic libraries;</li> <li>- Users of academic libraries: types of users and their needs.</li> </ul>	08hrs
Unit 2	:	<b>Higher Education and Libraries:</b>  <ul style="list-style-type: none"> <li>- History and development of higher education in India;</li> <li>- Role of UGC in the development of higher education;</li> <li>- Monitoring / accreditation agencies in India - NAAC, NBA;</li> <li>- Role of knowledge commission in higher education.</li> </ul>	06hrs
Unit 3	:	<b>Networking and Resource Sharing in Academic Libraries:</b>  <b>-Resource Sharing:</b> <ul style="list-style-type: none"> <li>- Meaning, definitions, objectives, advantages, and disadvantages.</li> </ul> <b>-Library Networks:</b> <ul style="list-style-type: none"> <li>- Meaning, definitions, the study of various library and information networks – national: INFLIBNET, DELNET; international – CALIS, JANET, OCLC.</li> </ul>	12hrs

		<p><b>- Library Consortia:</b></p> <ul style="list-style-type: none"> <li>- Meaning, definitions, objectives, types, study of various library consortia</li> <li>- national: FORSA, NKRC, HELINET, CeRA , ICMR, SPACENET, e-ShodhSindhu and international: RLUK, ICOLC , EIFL, SANLIC, CONCERT, CARLI, etc. Study of academic library networks: OCLC, INFLIBNET, DELNET.</li> </ul>	
Unit 4	:	<p><b>Collection Development in Academic Libraries:</b></p> <ul style="list-style-type: none"> <li>- Types and character of academic library collection;</li> <li>- Acquisition of documents: selection, policy, and procedures, maintenance;</li> <li>- User participation in collection development.</li> <li>- Information technology impact.</li> <li>- Problems of collection development.</li> </ul>	06hrs
Unit 5	:	<p><b>Library and Information Services in Academic Libraries:</b></p> <ul style="list-style-type: none"> <li>- Reference service;</li> <li>- Referral service;</li> <li>- Current awareness service;</li> <li>- Selective dissemination information service;</li> <li>- Abstracting and indexing services;</li> <li>- Document delivery services;</li> <li>- Translation services;</li> <li>- Online services: Alerting services - Listservs and FAQ;</li> <li>- Extension activities.</li> </ul>	10hrs
Unit 6		<p><b>Library Finance and Infrastructure:</b></p> <ul style="list-style-type: none"> <li>- Academic library finance and budgeting;</li> <li>- Human resource management;</li> <li>- Library buildings and equipments.</li> </ul>	06hrs
<b>Total</b>			<b>48hrs</b>

## References:

- Adisheshaiah, M. S. (1992). Role of the library in the university. *University News*. 30(35),13.
- Applegate, Rachel (2010). *Managing the small college library*. Englewood, CO: Libraries Unlimited.
- Bhatta, R.K. (1995). *History and development of libraries in India*, New Delhi: Mittal.
- Brophy, P. (2005). *The academic library*. 2nd rev. ed. London: Facet publishing.
- Budd, J. (1998). *The academic library: its context, its purposes, and its operation*. Englewood, CO: Libraries Unlimited.
- Cohen, L. B. (2008). *Library 2.0 initiatives in academic libraries*. Chicago: ALA.

- Dale, P., Beard, J. & Holland, M. (2011). *University libraries and digital learning environments*. Aldershot (GB): Ashgate Publishing..
- Datta, N. (1986). *Academic Status for University and College Libraries in India*. Delhi: IBB.
- Deshmukh, S. (2013). *Academic library: design and planning*. New Delhi: Neha publishers
- Fontichiaro, K. (2013). *21st-century learning in school libraries*. Englewood, CO: Libraries Unlimited.
- Ghanch, D.A. (1992). The library in the university. *University news*. 30(35), 19-20.
- Gupta, O.P. (1998). *Library services in university and college libraries in India*. New Delhi: Reliance Publishers.
- Hayes, R. M. (1993). *Strategic management for academic libraries*. Westport, CT: Greenwood
- Henry, M, & Morgan, S. (2002). *Practical strategies for modern academic library*. London: Aslib-IMI.
- Hulbert, J. N. Ed. (2007). *Defining relevancy: managing the new academic library*. Englewood, CO: Libraries Unlimited.
- Joseph, B. (2013). *Managing change in academic libraries*. London: Routledge.
- Li, LiLi. (2009). *Emerging technologies for academic libraries in the digital age*. Pennsylvania: Elsevier.
- Line, M.B. (1990). *Academic library effectiveness*. New Delhi: Ess Ess publications.
- Mahusan, F.S.G., & Mahajan, S.G (2004). *University and college librarianship: An India in the 21<sup>st</sup> facilitation committee*, Pune: Dept. of library and information science, Pune University.
- Megan, O. (2010). *The Value of academic libraries: A comprehensive research review and report*. Chicago: The Association of College and Research Libraries (ACRL).
- Panda, B.D. (1992). *The growth of academic library system*. New Delhi: Anmol publication.
- Rajasekharan, K & Nair, T.R. (1980). *Academic library development*, New Delhi: Ess-Ess publications.
- Sahai, S. N. (1990). *Academic library system*. New Delhi: Allied
- Singh, G. (2015). *Academic library system and services*. New Delhi: Ess Ess publications.
- Singh, S & Arora, M. (1995). *Handbook of college libraries*. New Delhi: Beacon Books.
- Srivastava, S.N. & Verma, S.C. (1980). *University libraries in India*. New Delhi: Sterling publishers.
- Varalakshmi, R. S. R. (2003). Measurement of college library performance: An evaluative study with Standards. *International information and library review* 35, 19-37.

## Open Elective

### **LSE457: REFERENCE / INFORMATION SOURCES**

#### **Objectives:**

- To familiarize students with the meaning, definition, use and implications of Information Sources;
- To study the primary, secondary tertiary sources of information sources;
- To understand the electronic information sources;
- To study human sources of information;
- To know the current trends in information sources;
- To study various aspects of information sources;
- To train students in handling information resources.

#### **Course Outcome (CO):**

- CO1 Understand the concept, types and importance of information / reference sources;
- CO2 Clearly understand the major information resources related to primary sources of information;
- CO3 Understand the important secondary sources of information like dictionaries, encyclopedias, handbooks and manuals, etc.;
- CO4 Understand the relevant tertiary sources of information like directory of directories, bibliography of bibliographies, union catalogues, guides to subject literature, and evaluation of both print and electronic information sources;
- CO5 Know the different non-documentary sources like human and institutional sources of information;
- CO6 Understand the concept, types of e-journals, e-books, e-theses, e-newspapers, blogs and wikis, online dictionaries and encyclopedias of e-resources;
- CO7 Clearly understand the current trends in information sources different types of library and information services especially in academic libraries.

Unit 1	:	<b>Information Sources:</b> <ul style="list-style-type: none"><li>– Meaning, definition, importance, characteristics, functions, criteria for evaluation of information sources;</li><li>– Types of information sources.</li></ul>	06hrs
Unit 2	:	<b>Primary Sources:</b> <ul style="list-style-type: none"><li>– Periodicals, research reports, conference and seminar proceedings, official publications, patents, standards, trade literature and theses and dissertations.</li></ul>	06hrs

Unit 3	:	<b>Secondary Sources:</b>  – Indexing periodicals, abstracting periodicals, bibliographies, treatises, monographs, textbooks; – Reference books: dictionaries, encyclopaedias, biographical sources, geographical sources.	12hrs
Unit 3	:	<b>Secondary Sources:</b>  – Biographical sources, geographical sources, statistical sources, current reference sources.	12hrs
Unit 4	:	<b>Tertiary Sources:</b>  – Yearbooks, Almanacs, Directories, Union catalogues. Bibliography of bibliographies;	08hrs
Unit 6	:	<b>Electronic Information Resources:</b>  – Meaning and definitions, types; – E-journals, e-books, e-encyclopedias, e-theses, e-newspapers, Online dictionaries, blogs, wikis, and other e-resources.	08hrs
<b>Total</b>			<b>48hrs</b>

## References:

- Chenny, F.N & Williams W.J. (1980). *Fundamental reference sources*. Ed2. Chicago: ALA.
- Donald, D. (1980). *Reference service*. London: Clive Bingley.
- Fjallbrant, N. & Stevenson, 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*, Ed5, 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. (1991). *How to find information in science and technology*. London: Library Association.
- 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*, Ed2 . 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.
- Sharma, J. S., & Grover, D. R. (1987). *Reference service and sources of information*. New Delhi: Ess Ess publications.
- Shores Louis. (1959). *Basic reference sources*. Chicago: ALA.
- Sing, S. (1997). *International manual of reference and information sources*. New Delhi: Beacon Books.
- Singh J (2003). *Information democracy and South Asia promises and perils of the web*. Ludhiana: Medallion press.
- Singh, G. (2013). *Information sources, services and systems*. Delhi: PHI Learning Pvt. Ltd.
- Subramanyam, K. (1981). *Scientific and technical information resources*. New York: Marcel Dekker.
- Velaga, V. (2005). *Information sources and services*. Hyderabad: Neelkamal publications.

## THIRD SEMESTER

### Hard Core

#### LSH501: INFORMATION RETRIEVAL

#### Objectives:

- To study various methods and techniques of information retrieval and search strategies;
- To understand the perspectives and significance of Information retrieval in the present context;
- To develop skills in information processing, organization, and retrieval;
- To familiarize students with information retrieval techniques;
- To study bibliographic description;
- To understand indexing concepts, theories, methods, and importance;
- To familiarize students with current trends in information retrieval.

#### Course Outcome (CO):

- CO1 Understand the objectives, components, and functions of information processing and retrieval systems;
- CO2 Gain the knowledge of information search, search techniques; search strategies; and other search formations;
- CO3 Clear understand the concepts, theories, methods and importance indexing languages, thesauri, and different subject headings;
- CO5 Understand the different kinds of indexing systems like Pre-Coordinate and Post coordinate, PRECIS, Chain Indexing, POPSI, KWIC, UNITERM Indexing, Citation indexing, etc.;
- CO6 Clear understanding of the evaluation of indexing systems and criteria for evaluation of ASLIB, MEDLARS, STAIRS, SMART, TREC, etc.;
- CO7 Knowledge of bibliographic description standards and format of ISBD, MARC 21, ISO 2709, and CCF.

Unit 1	:	<b>Information Processing and Retrieval:</b>  – Basic concepts, meaning and definition, retrieval process: objectives, components and functions of IRS.	<b>08hrs</b>
Unit 2	:	<b>Information search:</b>  – Objectives of information search, search techniques, information search strategies, pre search interview, search logic.	<b>06hrs</b>



Unit 3	:	<b>Indexing:</b>  – Concepts, theories, methods, and importance, indexing languages: vocabulary control, semantics, and syntactic, thesauri and subject headings – design and construction.	<b>08hrs</b>
Unit 4	:	<b>Indexing Systems:</b>  – Pre-Coordinate and Post coordinate. PRECIS, chain indexing, POPSI, KWIC, UNITERM indexing, citation indexing.	<b>08hrs</b>
Unit 5	:	<b>Evaluation of Indexing Systems:</b>  – Criteria for evaluation: Recall and precision, coverage, and currency, evaluation studies: ASLIB – Cranfield; MEDLARS, SMART.	<b>10hrs</b>
Unit 6	:	<b>Current Trends in Information Retrieval System:</b>  – Information retrieval models – Boolean, vector space and probabilistic – Developments, search and retrieval, full-text retrieval, IR standards, and protocols.	<b>08hrs</b>
<b>Total</b>			<b>48hrs</b>

## 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*. 2<sup>nd</sup>ed.
- Chowdhruy, G. G. (2003). *Introduction to modern Information retrieval*. 2<sup>nd</sup> Ed. London: Facet Publishing.
- Cleveland, D. B. (2001). *Introduction to indexing and abstracting*. 3<sup>rd</sup> 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.

## LSH502: METHODS IN LIS RESEARCH

### Objectives:

- To familiarize students with concepts and types of research;
- To study research design;
- To know the research techniques and tools;
- To understand the research methods and process;
- To familiarize students with the fundamentals of Bibliometrics, Scientometrics, Informetrics and Webometrics;
- To understand data analysis and interpretation;
- To develop the skills of report writing.

### Course Outcome (CO):

- CO1 Familiar with theory and practice of research and its methodology;
- CO2 Familiar with identifying research problems and doing subject literature research;
- CO3 Aware of developing research design, sample size and research instrument for data collection;
- CO4 Understanding the mode of data collection and data analysis;
- CO5 Knowledge use of statistical tools and techniques for data analysis and interpretation of research findings;
- CO6 Aware of methods of presenting and reporting research findings;
- CO7 Knowing fundamentals of Bibliometrics, Scientometrics, Informetrics and Webometrics.

Unit 1	:	<b>Foundations of Research:</b> <ul style="list-style-type: none"><li>- Concept, meaning, need and steps in research;</li><li>- Types of research – fundamental or pure and applied research - inter disciplinary and multidisciplinary approach;</li><li>- Areas of research in LIS.</li></ul>	08hrs
Unit 2	:	<b>Research Design:</b> <ul style="list-style-type: none"><li>- Definition, Types and their characteristics</li><li>- Preparation of a research proposal</li><li>- Identification and formulation of the problem;</li><li>- Hypotheses; nominal and operational definition;</li><li>- Literature search</li><li>- Ethical aspects of research.</li></ul>	08hrs
Unit 3	:	<b>Research Methods:</b> <ul style="list-style-type: none"><li>- Scientific method; Historical method; Descriptive method;</li></ul>	08hrs

		<p>Survey method; Case study method; Experimental method, Delphi method.</p> <p><b>Metric Studies:</b></p> <ul style="list-style-type: none"> <li>– Bibliometrics, Scientometrics, Informetrics, Webometrics, and Altmetrics</li> </ul>	
Unit 4	:	<p><b>Research Techniques and Tools:</b></p> <ul style="list-style-type: none"> <li>– Questionnaire; schedule; interview; observation;</li> <li>– Library record and reports;</li> <li>– Scales and checklists;</li> <li>– Concept of study population and sampling techniques.</li> </ul>	08hrs
Unit 5	:	<p><b>Data Analysis and Interpretation:</b></p> <ul style="list-style-type: none"> <li>– Variables and its types;</li> <li>– Descriptive statistics – measure of central tendency;</li> <li>– Co-relation, mean, mode, median, tabulation, and generalization;</li> <li>– Measures of dispersion, variance, and covariance, standard deviation;</li> <li>– Inferential Statistics – Chi-Square T-test, ANOVA, Z-test, KMO test;</li> <li>– Graphical presentation of data – bar, pie, line-graphs, histograms;</li> <li>– Statistical packages – SPSS and its variations.</li> </ul>	08hrs
Unit 6	:	<p><b>Research Reporting:</b></p> <ul style="list-style-type: none"> <li>– Structure and components, style, contents;</li> <li>– Guidelines of research reports;</li> <li>– Style manual: Chicago, MLA, and APA,</li> <li>– Criteria for evaluation of research report.</li> </ul>	08hrs
<b>Total</b>			<b>48hrs</b>

## 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 procedudre 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.

## **LSP503: INFORMATION PROCESSING: CATALOGUING - II (PRACTICE)**

### **Objectives:**

- Preparing catalogue entries (Main, Added and Reference Entries) for non-book materials using Anglo American Cataloguing Rules -2 revised edition. Assigning subject headings (Using at least one standard subject heading);
  - o Cartographic materials;
  - o Manuscripts;
  - o Graphic materials;
  - o Music
  - o Sound recordings;
  - o Motion pictures & video recordings;
  - o Micro forms and electronic resources.

### **Course Outcome (CO):**

- CO1 Get hands-on training to advanced mode of cataloguing complex reading materials available in different formats;
- CO2 Clear understanding the preparation of cataloguing for non book materials according to the latest edition of AACR/RDA;
- CO3 Gain knowledge of applying various cataloguing codes for non book materials;
- CO4 Knowledge and skill of using different formats and standards that can be used for the cataloguing the resources;
- CO5 Get hand on experience of the different non book materials forms;
- CO6 Understating of current trends in cataloguing of non-book materials;
- CO7 Hands-on training to catalog different type and formatted documents in library.

**Cataloguing of non-book materials according to the latest edition of AACR/RDA  
(Assigning Subject Headings using at least one Standard Subject Heading)**

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

Unit 1: Cartographic Materials.	10 hrs
Unit 2: Manuscripts and Graphic Materials	10 hrs
Unit 3: Microforms.	10 hrs
Unit 4: Sound recordings. Motion Pictures & Videorecordings.	12 hrs
Unit:5: Music and Three - Dimensional Artefacts and Realia	10 hrs
Unit 6: Electronic Resources.	10hrs
<b>Total</b>	<b>62hrs</b>

## **LSP504: METHODS IN LIS RESEARCH (PRACTICE)**

### **Objectives:**

- To familiarize students with the differentiation between a purpose statement, a research question or hypothesis, and a research objective;
- To know how sample size is determined in qualitative research;
- To understand the link between quantitative research questions, data collection and how research questions are operationalized in educational practice;
- To understand the criteria that can be used to select an appropriate statistical test to answer a research question or hypothesis;
- To study the steps involved in qualitative data collection;
- To enable students should understand why qualitative data analysis is considered to be “interpretive.”;
- To understand the conventions of good APA style for scholarly writing.

### **Course Outcomes (CO):**

- CO1 Develop understanding of various kinds of research, objectives of doing research, research process, research designs and sampling;
- CO2. Have basic knowledge on qualitative research techniques;
- CO3. Have adequate knowledge on measurement & scaling techniques as well as the quantitative data analysis;
- CO4. Have basic awareness of data analysis, and hypothesis testing procedures;
- CO5 Familiar with conducting a literature review for a scholarly educational study;
- CO6 Familiar with ethical issues in educational research, including those issues that arise in using quantitative and qualitative research;
- CO7 Acquaintance with SPSS, PSPP, Mendeley, Zotero and EndNote.

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

Unit 1: Formulation of research objectives, hypotheses	10hrs
Unit 2: Review of literature	10hrs
Unit 3: Design of a questionnaire	10hrs
Unit 4: Acquaintance and hands-on experience with SPSS / PSPP	10hrs
Unit:5: Reference management tools: Mendeley / Zotero / EndNote	10hrs
Unit 6: Report writing	12hrs
<b>Total</b>	<b>62hrs</b>

## Soft Core

### **LSS505: 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 Educating students on tools and techniques of preserving information sources making them aware of legal issues while digitizing and digital preservation/archives;
- CO2 Familiarise with methods and process practiced to preserve important documents in libraries;
- CO3 Knowledge of evolution of storage devices and materials used to record and preserve knowledge through ages till modern times;
- CO4 Awareness of hazards of library materials and modes used for their preservation;
- CO5 Aware of Open Archive initiatives (OAI) and nature of information accessible through those open repositories;
- CO6 Knowledge of records management and ERM code of ethics for digital archives;
- CO7 Knowledge of methods, tools, legal issues related digitization and digital preservation.

Unit 1	:	<b>Introduction to Concepts of Archiving, Preservation and Conservation:</b>  – Need and significance of archiving, preservation and conservation of information resources.	08hrs
Unit 2	:	<b>Evolution of Writing Materials:</b>  – Clay, papyrus, metallic plates, skin, parchment, vellum, palm leaves, palm leaves, papyrus, parchment, and vellum - history, nature, use as writing materials, and their preservation, history of papermaking, different types of paper, and their nature.	08hrs



Unit 3	:	<b>Different Types of Library Materials, Their Preservation and Maintenance:</b>  – Paper-Based materials - Book and Non-Book materials, Library Binding, Binding Standards. Preservation and conservation of non-print materials: Microforms, AV records, Magnetic Plates, Tapes & Diskettes, Optical media, Magneto-Optical Discs.	08hrs
Unit 4	:	<b>Hazards to Library Materials and Their Preservation:</b>  – Environmental hazards, biological hazards, and human being as an enemy of library materials, disaster prevention and recovery.	08hrs
Unit 5	:	<b>Study Various National Archival Initiatives of Different Countries:</b>  – NARA of US; – Australian national initiatives; – Public archives of Canada. – National archive of India	08hrs
Unit 6	:	<b>Records Management Concepts and Issues:</b>  – Information resource management, to include electronic resource management code of ethics for archivists. – digital preservation: tools and techniques, legal issues	08hrs
<b>Total</b>			<b>48hrs</b>

## 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 York: 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.
- Bhagath 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 Artist'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.

## LSS506: SPECIAL LIBRARY SYSTEM

### Objectives:

- To define the basic objectives of special libraries, their types, and functions;
- To understand the historical development of special libraries in India;
- To understand the fundamentals of special library administration and management
- To gain knowledge about planning and organization of special libraries
- To know the procedure for the selection and recruitment of library staff.
- To study about the library finance, and budgeting system
- To know the requirements of infrastructure for a special library

### Course Outcome (CO):

- CO1 Understand the define the primary objectives of special libraries, their types, and functions of special libraries;
- CO2 Understand the historical development of special libraries in India;
- CO3 Understand the fundamental of special library administration and management;
- CO4 Gain knowledge about planning and organisation of special libraries;
- CO5 Know the procedure for selection and recruitment of library staff;
- CO6 Study of library finance, and budgeting system;
- CO7 Knowledge of requirements of infrastructure for a special library.

Unit 1	: <b>Special Libraries:</b>	08hrs
	<ul style="list-style-type: none"><li>– Meaning and definition, aims, objectives, and functions;</li><li>– Types of special libraries: characteristics and their role in research and development environment, industries and decision making;</li><li>– History and development of special libraries in India.</li></ul>	
Unit 2	: <b>Information Resources Development and Management:</b>	08hrs
	<ul style="list-style-type: none"><li>– Steps in information resources development and management;</li><li>– Selection and acquisition of books, periodicals, technical reports, patents, standard, learned society publications, government documents, non- book materials including electronic publications;</li><li>– Weeding, preservation, storage, and evaluation.</li></ul>	
Unit 3	: <b>Planning and Organization of Library and Information Services</b>	08hrs
	<ul style="list-style-type: none"><li>– Conventional, Computer based including Internet resources and services.</li></ul>	

Unit 4	:	<b>Human Resource Management:</b>  <ul style="list-style-type: none"> <li>– Meaning, definitions, and objectives;</li> <li>– Selection and Recruitment of Library staff;</li> <li>– Qualifications, Duties, and Responsibilities, Conditions, Training and Education;</li> <li>– Motivation and Control.</li> </ul>	08hrs
Unit 5	:	<b>Finance and Budgeting:</b>  <ul style="list-style-type: none"> <li>– Meaning, definitions;</li> <li>– Resource Mobilization and Sources of Finance, budgeting Techniques, Budgetary Control.</li> </ul>	08hrs
Unit 6	:	<b>Library Infrastructure:</b>  <ul style="list-style-type: none"> <li>– Planning and Designing of Modern Special Library Building;</li> <li>– Furniture and Equipment.</li> </ul>	08hrs
			<b>48hrs</b>

## References:

- Ashworth, W. (1985). *Special librarianship*. London: Clive- Bingley.
- Ashworth, W (1982). *Handbook of special librarianship and information work*. London: Aslib.
- Auger, C. P. (1998). *Information sources in grey literature*. 4th ed. London: Bowker.
- Buckett, J., & Morgan, T.S. (1963). *Special materials in the libraries*. London: Aslib.
- Chapman, L. (2001). *Managing acquisitions in library and information services*. London: Library Association.
- Clapp, V. W. (2010). *Features of the research library*. Urbana: University of Illinois.
- Griffith, J. M., & King, D. W. (1993). *Special libraries: Increasing the information edge*. Washington D C: SLA.
- Grogan, D. (1982). *Science and technology: An introduction to the literature*. London: Clive-Bingley.
- Hernon, P., & Whitman, J. R. (2001). *Delivering satisfaction and service quality: A customer-based approach for libraries*. Chicago: American Library Association.
- Houghton, B. (1985). *Technical information sources*. London, N Y: Scarecrow.
- Jackson, F. B. (1985). *Special librarianship: A new reader*. New York: Scarecrow.
- Jones, N., & Jordon, P. (1982). *Staff management in library and information work*. Gower: Grafton book.

- Pruett, N. J. (1986). *Scientific and technical libraries*. London: Academic.
- Raitt, D. (1997). *Libraries for the new millennium*. London: Library Association.
- Scammell, A.W. (1997). *Handbook of special librarianship and information work*. London: Aslib.
- Singh S. P. (2005). *Special libraries in the electronic environment*. New Delhi: Bookwell.
- Sridhar, M. S. (1992). *Problems of collection development in special libraries*. New Delhi: Concept.
- Subramanyam, K. (1981). *Scientific and technical information resources*. New York: Marcel Dekker.
- Wilkie, C. (2009). *Managing film and video collections*. London: Aslib.

## Open Elective

### **LSE507: ELECTRONIC INFORMATION RESOURCES AND SERVICES**

#### **Objectives:**

- To familiarize students with the meaning, definition, characteristics use and implications of Information Sources;
- To know the criteria for evaluation of electronic information resources;
- To study the different types of electronic information sources;
- To understand resource sharing and library networks;
- To gain knowledge about the national and international library consortia;
- To understand the different types of electronic information services;
- To gain knowledge about current trends in electronic information sources.

#### **Course Outcome (CO):**

- CO1 Understand the meaning, definition, characteristics use and implications of Information Sources;
- CO2 Know the criteria for evaluation of electronic information resources;
- CO3 Gain knowledge of different types of electronic information sources;
- CO4 Understand resource sharing and library networks;
- CO5 Have knowledge about both national and international library consortia;
- CO6 Understand the different types of electronic information services;
- CO7 Gain knowledge about current trends in electronic information sources.

Unit 1	:	<b>Electronic Information Sources:</b> <ul style="list-style-type: none"><li>– Meaning, definition, characteristic, and use;</li><li>– Types of sources (Primary, Secondary, Tertiary);</li><li>– Evaluation of electronic information sources.</li></ul>	<b>08hrs</b>
Unit 2	:	<b>Types of Electronic Information resources:</b> <ul style="list-style-type: none"><li>– E-journals, e-books, e-theses, e-newspapers, blogs, and wikis, online dictionaries and encyclopedias: free and proprietary, and other e-resources.</li></ul>	<b>08hrs</b>
Unit 3	:	<b>Resource Sharing and Library Networks</b> <ul style="list-style-type: none"><li>– <b>Resource Sharing:</b> Meaning, definitions, objectives, advantages, and disadvantages;</li><li>– <b>Library Networks:</b> Meaning, definitions, and the study of various library and information networks ;</li><li>– National: INFLIBNET, DELNET;</li><li>– International – CALIS, JANET, OCLC.</li></ul>	<b>08hrs</b>

Unit 4	:	<b>Library Consortia:</b>  <ul style="list-style-type: none"> <li>– <b>Library Consortia:</b> Meaning, definitions, objectives, types, study of various library consortia;</li> <li>– National: FORSA, NKRC, HELINET, CeRA , ICMR, SpaceNet, e-ShodhSindhu;</li> <li>– International: RLUK, ICOLC , EIFL, SANLIC, CONCERT, CARLI, etc.</li> </ul>	<b>10hrs</b>
Unit 5	:	<b>Electronic Information Services:</b>  <ul style="list-style-type: none"> <li>– Conceptual foundations, types and characteristics, traditional vs. digital information sources;</li> <li>– Bibliographic databases, Citation databases;</li> <li>– Full-text databases;</li> <li>– Portals, gateways, open access, alerting services (e-CAS, e-SDI) Bibliographic, referral, e-DDS.</li> </ul>	<b>08hrs</b>
Unit 6	:	<b>Current Trends in Electronic Information Sources and Services</b>  <ul style="list-style-type: none"> <li>- Institutional repositories;</li> <li>- Social networking;</li> <li>- On-line and off-line resources;</li> <li>- Discussion forums and information gateways;</li> <li>- Information search – types;</li> <li>- On-line searching, search techniques.</li> </ul>	<b>06hrs</b>
<b>Total</b>			<b>48hrs</b>

## References:

- Alan P., Gwyneth T. & Goff S.(1999). The Library and Information Professional's Guide to the World Wide Web. London : Facet publishing.
- 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.
- Walford, A.J. (1990). *Guide to reference materials*, London: Library Association.



# FOURTH SEMESTER

## Hard Core

### LSS551: INFORMATION SYSTEMS AND SERVICES

#### Objectives:

- To familiarize students with the meaning, definition, use and implications of information systems;
- To understand the structure and development of information systems;
- To study the various components of information systems;
- To study the activities of national and international information systems;
- To understand resource sharing and networks;
- To know the bibliographic service;
- To understand the planning design and evaluation of information systems.

#### Course Outcomes (CO):

- CO1 Able define and describe structure, functions and components of information systems;
- CO2 Makes students to understand nature of reference and referral services and importance of resource sharing;
- CO3 Clearly understanding of concept, importance and types of reference services;
- CO4 Know current awareness and selective dissemination of information services;
- CO5 Understanding of meaning and importance of resource sharing and national information network centres that are involved in resource sharing;
- CO6 Generate subject bibliographies and provide them to needy users;
- CO7 Knowledge of national documentation centres and international agencies involved in provision of information services.

Unit 1	:	<b>Information Centres and Services:</b>  – Basic concepts, meaning, objectives, and functions – Components of information system: libraries, documentation centres, institutional repositories, open archives,	<b>06hrs</b>
Unit 2	:	<b>Reference Service:</b>  – Meaning, definitions, need, purpose, and types. – Reference process, steps in providing reference services, qualities of a reference librarian.	<b>06hrs</b>
Unit 3	:	<b>Library Services:</b>  – Current Awareness Service (CAS), – Selective Dissemination of Information (SDI),	<b>08hrs</b>

		<ul style="list-style-type: none"> <li>- Document Delivery Service (DDS),</li> <li>- Referral Service,</li> <li>- Translation Service,</li> <li>- Online Services: Alerting Services - LISTSERV and FAQ.</li> </ul>	
Unit 4	:	<p><b>Resource Sharing:</b></p> <ul style="list-style-type: none"> <li>- Meaning, Definitions, Objectives, advantages, and disadvantages.</li> </ul> <p><b>Library Networks:</b></p> <ul style="list-style-type: none"> <li>- Meaning, definitions, the study of various library and information networks – National: INFLIBNET, DELNET; International – CALIS, JANET, OCLC.</li> </ul> <p><b>Library Consortia:</b></p> <ul style="list-style-type: none"> <li>- Meaning, definitions, objectives, types, study of various library consortia – National: FORSA, NKRC, HELINET, CeRA , ICMR, SPACENET, E-ShodhSindhu and International: RLUK, ICOLC, EIFL, SANLIC, CONCERT, CARLI, etc.</li> </ul>	<b>12hrs</b>
Unit 5	:	<p><b>National Documentation Centres:</b></p> <ul style="list-style-type: none"> <li>- NISCAIR, DESIDOC, NASSDOC and NIMSME.</li> </ul>	<b>06hrs</b>
Unit 6	:	<p><b>Information Systems and Databases:</b></p> <ul style="list-style-type: none"> <li>- International Nuclear Information System (INIS).</li> </ul> <p><b>Study of various databases</b></p> <ul style="list-style-type: none"> <li>- BIOSIS, INSPEC, ERIC, AGRIS, and MEDLINE, BTIS, ENVIS PIS.</li> </ul>	<b>10hrs</b>

## 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.

## LSH552: WEB TECHNOLOGY

### Objectives:

- To study computer network, its types and topologies;
- To understand internet tools and techniques;
- 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 web site using different tools and standards;
- To introduce the concept of digital library;
- To familiarize students with open sources digital library software.

### Course Outcomes (CO):

CO1 Familiarizing students with internet, design, development of web design and digital library using metadata standards;

CO2 Understanding of topology and requirements of computer networks and type for networks available for accessing information online;

CO3 Knowledge of scripts and standards required for web design and programming;

CO4 Clear understanding of purpose, methods and cyber laws related to internet and its usage;

CO5 Knowledge of computer hardware, software and other infrastructure required to develop digital library;

CO6 Familiarity with metadata and other web standards to create digital libraries and open sources software available for creating digital repositories;

CO7 Familiarity with web technology related tools and services.

Unit 1	:	<b>Computer Networks:</b> <ul style="list-style-type: none"> <li>– Concept, definition, and types of networks - PAN, LAN, CAN, MAN and WAN;</li> <li>– Network topologies: Star, Ring, Bus, Tree, Mesh, Line;</li> <li>– Network models and protocols: OSI, TCP/IP, IPv4, IPv6; SMTP, HTTP, FTP;</li> <li>– Network layers and network architecture;</li> <li>– Wireless networks: WiFi, WiMAX.</li> </ul>	08hrs
--------	---	--	-------

Unit 2	:	<b>Internet:</b> <ul style="list-style-type: none"> <li>– Meaning, Origin, ISP;</li> <li>– Internet tools and services: WWW, email, FTP, search engine, list forum, PING, Web sites, browser, blogs, semantic web, cloud computing;</li> <li>– Internet-based library and information services.</li> </ul>	08hrs
Unit 3	:	<b>Web Technology:</b> <ul style="list-style-type: none"> <li>– Features and Functions of Web 1.0, Web 2.0, and Web 3.0.</li> <li>– Study of the concepts and application of RSS feeds, metadata, tag clouds, blogs, social bookmarking, social networking;</li> <li>– Web protocols - SOAP, open URL, relevant W3 standards and protocols, Library 2.0, SKOS.</li> <li>– OJS and journal ranking;</li> <li>– Online learning courses: Concept, need, and importance, MOOCs, SWAYAM.</li> <li>– Gateways, portals.</li> </ul>	08hrs
Unit 4	:	<b>E-Resources and Emerging Technology:</b> <ul style="list-style-type: none"> <li>– E-resources: Concept, characteristics;</li> <li>– Types: e-journals, e-books, ETD, etc.;</li> <li>– Open access movement: understanding of OAI;</li> <li>– Content management: CMS software and platforms like Joomla, Drupal, WordPress, and Moodle, etc.</li> </ul>	08hrs
Unit 5	:	<b>Web design:</b> <ul style="list-style-type: none"> <li>– Website – Meaning, types;</li> <li>– Design tools – HTML, XHTML, SGML;</li> <li>– Web standards - Metadata;</li> <li>– Web servers: Apache, Internet Information Services (IIS), Xitami;</li> <li>– Scripting languages: Client-side Scripting - CSS, VB Script and Java Script; Server-side Scripting - ASP and JSP.</li> </ul>	08hrs
Unit 6	:	<b>Digital Libraries:</b> <ul style="list-style-type: none"> <li>– Meaning, definition, characteristics, advantages, and disadvantages of digital libraries;</li> <li>– The Infrastructure required for setting up digital libraries – hardware, software, and skilled manpower; digital materials.</li> <li>– Institutional repositories;</li> <li>– Open source software like DSpace, EPrint and Greenstone.</li> </ul>	08hrs
<b>Total</b>			<b>48hrs</b>

## 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.
- Campeato, 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 6<sup>th</sup> 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.

## LSP553: WEB TECHNOLOGIES (PRACTICE)

### Objectives:

- To understand the Web Technologies and Markup Languages like HTML, XML, DHTML, XHTML;
- To introduce the concept of computer network and network protocols;
- To impart practical training in design and development of web pages and web blogs;
- To understand internet tools, services and techniques;
- To provide hands on experience with design, development and implementation of Digital Libraries;
- To make them familiar with digitization techniques and their application;
- To familiarize students with open source digital library software and digital library initiatives.

### Course Outcomes (CO):

- CO1 Familiarizing students with internet tools, services and online databases;
- CO2 Clear understanding of plagiarism detection using software and online services;
- CO3 Familiar with Web Content Management Systems (CMS) like Drupal / Joomla;
- CO4 Knowledge of Web design and Web hosting tools like HTML and WordPress;
- CO5 Knowledge of scripts and standards required for web design and programming;
- CO6 Understanding standards to create digital libraries open source software like DSpace / Greenstone;
- CO7 Knowledge of Internet and its application in LIS.

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

Unit 1	:	Internet tools and services	10hrs
Unit 2	:	Online database searching: Web directory, Web OPACs, WorldCat, and IndCat.	06hrs
Unit 3	:	Web design and Web hosting; HTML, WordPress	15hrs
Unit 4	:	Web Content Management Systems (CMS): Drupal / Joomla	10hrs
Unit 5	:	Digital library software: D-Space / Greenstone	15hrs
Unit 6	:	Use of plagiarism detection software.	06hrs
		<b>Total</b>	<b>62hrs</b>

## **LSP554: INFORMATION SOURCES (PRACTICE)**

### **Objectives:**

- To enable the students to examine a realistic information problems in practice;
- To get acquainted with a variety of information sources.
- To develop skills to carry out information searches using various bibliographic and non bibliographic database;
- To learn how to evaluate sources of information;
- To get practical experience in preparation of newspaper clippings;
- To get practical experience of handling and searching from different reference tools;
- To get practical experience in compilation of bibliographies and catalogues.

### **Course Outcome (CO):**

- CO1 Gain knowledge about different sources of information;
- CO2 Understand the criteria's evaluation of information sources;
- CO3 Gain experience in evaluation of electronic information sources;
- CO4 Training to prepare press clippings;
- CO5 Practical experience in compilation of bibliographies;
- CO6 Practical experience in evaluation of websites;
- CO7 Gain experience in compilation of catalogues.

**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	Evaluation of secondary sources.	16 hrs
Unit 2	Evaluation of tertiary sources .	08 hrs
Unit 3	Preparation of news paper clippings.	10 hrs
Unit 4	Compilation of bibliography / catalogue.	08 hrs
Unit 5	Evaluation of electronic information sources.	10 hrs
Unit 6	Evaluation of websites.	10 hrs
	<b>Total</b>	<b>62hrs</b>



## **LSP555: DISSERTATION AND VIVA VOCE**

### **Objectives:**

- 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;
- CO2 Formulate research questions and statement of problem;
- CO3 Conduct literature research scientifically;
- CO4 Design suitable research methodology including sample size and research instrument to collect data;
- CO5 Understand the mode of data collection, creation of responses database to carry the data analysis;
- CO6 Apply suitable statistical tools and techniques for data analysis and interpretation of research findings;
- CO7 Understand the method of presenting and reporting research findings.

The students are required to select a topic for the dissertation in the beginning of the 3<sup>rd</sup> semester in consultation with respective assigned guide and work two hours per week and prepare the synopsis during the 3<sup>rd</sup> semester of the course.

The dissertation should be written as an individual work, and Viva Voce should be conducted for 30 marks in lieu of internal assessment. Viva Voce board shall consist of chairman of the BOE as chairman of the Viva board, Chairman of the departmental council, concerned guides and an external examiner.

Quorum shall be three.

Total hours of instruction **62hrs.**

## Soft Core

### **LSS556: PRACTICAL EXPERIENCE / INTERNSHIP AND LIBRARY TOUR**

#### **Objectives:**

- 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 Development of analytical skills, and knowledge.
- CO5 Enabled to critically analyze library policies, functions, activities, services, and processes of different libraries
- CO6 By visiting all kinds of libraries and information Centers in other states or countries, they can see directly what they have learned and follow in their future.
- CO7 Fulfillment of the course objectives enables students to visit some real libraries and study the functions and services.

<p>a) <b>Work experience:</b> 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.</p> <p><b>70 Marks</b></p> <p>b) There shall be a library tour, which is compulsory, and the student has to submit a tour observation report. Each student shall submit a library tour report prepared under the guidance of the teacher and submit the same before the commencement of the theory examinations.</p>	<b>62hrs</b>
---	--------------

## Distribution of Internal Assessment Marks for Paper Number LSS 556

<b>Attendance</b>  76% - 85% - 4 Marks 86%-95% - 6 Marks 96% - 100% - 10 Marks	<b>10Marks</b>
<b>Work Experience</b>	<b>70 Marks</b>
<b>Tour Report</b>	<b>20 Marks</b>

## Distribution of Internal Assessment Marks for all Practical papers

<b>Attendance</b>  76% - 85% - 2 Marks 86%-95% - 3 Marks 96% - 100% - 5 Marks	<b>05 Marks</b>
<b>Two Internal Tests</b>	<b>15 Marks</b>
<b>Practical Records</b>	<b>10 Marks</b>

## Distribution of Internal Assessment Marks for all Theory papers

<b>Attendance</b>  76% - 85% - 2 Marks 86%-95% - 3 Marks 96% - 100% - 5 Marks	<b>05 Marks</b>
<b>Two Internal Tests</b>	<b>15 Marks</b>
<b>Two Assignments</b>	<b>05 Marks</b>
<b>One Seminar</b>	<b>05 Marks</b>

\*\*\*\*\*