VIDYASAGAR UNIVERSITY

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

SYLLABUS STRUCTURE

Course code	Course Title	Credits				Marks	
1st Year 1st Semester		**L**	**T**	**P**	**C**	**Exam**	**IA**
LIS 111	Recent Developments in Library & Information Science	2	0	0	2	40	10
LIS 112	Research Methodology	1	0	1	2	40	10
LIS 113	Quantitative Techniques	2	0	0	2	40	10
LIS 114	Research in Library and Information Science-Sources and Tools	2	0	0	2	40	10
	Sub Total	7	0	1	8	160	40
	1st Year 1st Semester Total	**Marks=200**					
1st Year 2nd Semester							
LIS 121	Ranganathan Study	2	0	0	2	40	10
LIS 122	Information Analysis and Consolidation (Practice)	0	0	2	2	40	10
LIS 123	Digital Information Sources in LIS Research	1	0	1	2	40	10
LIS 124	Software in LIS Studies (Practice)	0	0	2	2	40	10
	Sub Total	3	0	5	8	160	40
	1st Year 2nd Semester Total	**Marks=200**					
2nd Year 1st Semester & 2nd Semester							
LIS 221	Dissertation Viva voce					75 25	100
	2nd Year Total	**Marks=100**					
Course Total		**Marks=500**					

Note: Four papers of First Semester of M.Phil in Library and Information Science will be same as course work of the Ph.D. programme in Library and Information Science.

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

RECENT DEVELOPMENTS IN LIBRARY AND INFORMATION SCIENCE

Paper – LIS 111

Full marks: 50

Theory: 40 Internal Assessment: 10

- New theories, models, methods, tools in LIS domain
- Advances in information organization and control e.g., Web ontology, semantic web, Taxonomy, RDA, Bibframe
- Inter-disciplinary nature of LIS
- Open movements and Libraries
- Information behaviour in digital environment
- Changing role of libraries
- Technology adoption in libraries
- Big data applications in libraries
- Challenges in LIS education & profession

Suggested Readings:

1. Chen, C. & Larsen, R. (Eds.). (2014). *Library and information sciences: Trends and research.* Heidelberg: Springer.
2. Davies, J., Studer, R. & Warren, P. (2006). *Semantic Web technologies: Trends and research in ontology-based systems.* Chichester, England: John Wiley.
3. Deards, K.D. & Springs, G.R. (2014). *Succession planning and implementation in libraries: Practices and resources.* Hershey, PA: Information Science Reference.
4. Gutiérrez, C.R. (Ed.).(2012). *Advances in knowledge representation.* Rijeka, Croatia: InTech.
5. Hansson, T. (Ed.).(2008). *Handbook of research on digital information technologies : Innovations, methods, and ethical issues.* Hershey, PA: Information Science Reference.
6. Katsirikou, A. (Ed.). (2011). *Open Access to STM information: Trends, models and strategies for libraries.* Berlin: Walter de Gruyter.
7. Kock, N. (Ed.). (2010). *Evolutionary psychology and information systems research: A new approach to studying the effects of modern technologies on human behavior.* New York: Springer.
8. McGrath, W.E. (Ed.). (2002). Current theory in library and information science. *Library Trends: Special issue*, 50(3), 309-574.
9. Melucci, M. & Baeza-Yates, R. (Eds.). (2011). *Advanced topics in information retrieval.* Berlin: Springer.
10. Yu, H. & Breivold, S. (2008). *Electronic resource management in libraries : research and practice.* Hershey, PA: Information Science Reference.

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

RESEARCH METHODOLOGY

Paper – LIS 112

Full marks: 50

Theory: 20 Internal Assessment: 5

- Types of research- Basic and Applied research, Descriptive, Experimental and Analytical research, Quantitative and Qualitative research, Conceptual research
- Research question and its framing
- Research design and methods
- Literature search- Print, Non-Print and digital resources.
- Literature review-What, Why and How?
- Primary data: sources and methods of collection
- Secondary data: sources and methods of collection
- Data presentation-tabulation, graphical presentation, use of statistical packages
- Research reporting: structure, style, contents, guidelines, quality parameters and citation
- Library and Information Science research, Impact of new technologies; e-citation, on-line survey, Webliography, Organizations, Institutions, Experts.

Practical: 20 Viva-voce: 5

- Use of Computer in Research**-** Word processing, Data processing, Graphical processing, Use of MS Excel, Use of SPSS and other Statistical software.

Suggested Readings:

1. American Psychological Association.(2010).*The publication manual of the American Psychological Association* (6th ed.). Washington, DC: APA.
2. Best, J.W. & Kahn, J.V. (2006). *Research in education.* 10th ed. Boston: Pearson.
3. Busha, C. & Harter, S. (1980). *Research methods in librarianship: techniques and interpretations.* New York: Academic Press.
4. Bushaway, R. W. (2003). Managing Research. Maidenhead, England: Open University Press.
5. Connaway, L.S. & Powell, R. R. (2010). *Basic research methods for librarians*. (5th ed.). Santa Barbara, CA: Libraries Unlimited.
6. Gerson, S. J. & Gerson, S. M. (1992). *Technical writing: Process and product.* Englewood Cliff's: Prentice Hall.
7. Gorman, G.E. & Clayton, P. (2004). *Qualitative Research for the Information Professional: A practical handbook* (2nd ed.). London: Facet Publishing.

8. Huckin, T. N. & Olsen, L. A. (1991). *Technical writing and professional communication for non-native speakers of English.* (2nd ed.). New York: McGraw-Hill.
9. Khan, M. A. (2002). *Research methods in library and information science*. New Delhi: Cosmo Publications.
10. Kothari, C.R. (2004). *Research methodology: methods and techniques* (2nd rev. ed.). New Delhi : Wiley Eastern Publishers.
11. Krishan Kumar (1992). *Research methods in library and information science*. New Delhi: Vikas Publishing House.
12. Kuhn, T.S. (1996). *The structure of scientific revolutions*. (3rd ed.). Chicago: University of Chicago Press.
13. Lawal, I. O. (2009). *Library and information science research in the 21st century: a guide for practicing librarians and students*. Oxford, UK: Chandos Pubishing.
14. Modern Language Association of America. (2008). *MLA style manual and guide to scholarly publishing*. (3rd ed.). New York: MLA.
15. Moore, N. (2006). *How to do research* (3rd ed.). London: Facet Publishing.
16. Neelameghan, A. (1975). *Presentation of ideas in technical writing.* New Delhi: Vikas Publishing House.
17. Ohdedar, A.K. (1993). *Research methodology.* Calcutta: Bengal Library Association.
18. Rubens, P. (2001). *Science and technical writing: A manual of style* (2nd ed.). New York: Routledge.
19. Simpson, I. S. (1990). *How to interpret statistical data: A guide for librarians and information scientists*. London: Library Association.
20. Slater, Margaret, (Ed.). (1990). *Research methods in library and information studies.* London: Library Association.
21. University of Chicago. (2010). *The Chicago manual of style.* (16th ed.). Chicago: University of Chicago Press

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

QUANTITATIVE TECHNIQUES

Paper – LIS 113

Full marks: 50

Theory: 40 Internal Assessment: 10

- Statistical methods - Introduction
- Measures of Variability and skewness
- Sampling & sample designs
- Correlation studies and regression analysis
- Hypothesis testing, Null and Alternative Hypothesis
- Analysis of Variance and Co-variance, Multivariate Analysis Techniques , Time series – Components, measurement of trend and statistical fluctuations
- Operations Research (OR) - Meaning, nature, methodology and utilities, OR techniques, Work study, Queuing theory, Game theory, Network analysis
- Project using statistical packages (e.g., R)

Suggested Readings:

1. Albert, J. & Rizzo, M. (2012). *R by example*. New York: Springer.
2. Braun, W.J. & Murdoch, D.J. (2007). *A first course in statistical programming with R.* Cambridge, N.Y.: Cambridge University Press.
3. Gun, A.M., Gupta, M.K. & Dasgupta, B. (2008). Fundamentals of Statistics. (8th rev. ed.). 2 vols. Kolkata: World Press, 2008.
4. Hafner, A.W. (1988). *Descriptive statistical techniques for librarians.* Chicago: American Library Association.
5. Mustafi, C.K. (2012). *Operations research: Methods and practice.* New Delhi: New Age International Publisher.
6. Pal, M.N., Chatterjee, A.K. & Mukherjee, S. K. (1991). *Introduction to work study* (3rd rev ed.). New Delhi: Oxford and IBH Publishing.
7. Ravichandra Rao, I.K. (1983). *Quantitative methods for library and information science.* , New Delhi: Wiley Eastern.
8. Sehgal, R.L. (1998). *Statistical techniques for librarians.* New Delhi: Ess Ess Publications.
9. Simpson, I. S. (1988). *Basic statistics for librarians* (3rd ed.). London: Library Association.
10. Taha, H.A. (2014). *Operations research: An introduction* (9th ed.). New Delhi: Pearson Education India.

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

RESEARCH IN LIBRARY & INFORMATION SCIENCE-SOURCES AND TOOLS

Paper – LIS 114

Full marks: 50

Theory: 40 Internal Assessment: 10

- Digital Information Sources and Services: Nature, Features and Types;
- Internet-based Services; Databases: Bibliographic and Full Text;
- Digital Library and Institutional Repositories;
- Virtual Reference Tools and Services;
- Open Access in LIS, Open Data in LIS, Green and Gold LIS, Evaluation of Digital Information Sources and Services
- Web 2.0 and Library 2.0: Tools, sources and services,
- Information mashup in LIS research, Collaborative research support tools coonectviabooks, whatshouldireadnext, literature-map.com etc)
- Online survey tools: Use and deployment
- LIS Research: Electronic Theses and Dissertations on LIS database (NDLTD, LDL, VidyaNidhi, Theses.com)
- Proquest Open, Open Access ETD (oatd.org) etc.), Citation Tools (e.g. CiteSeer), Virtual Union Catalogue

Suggested Readings:

1. Carnaby, P: *Next generation e-learning and digital information resources*. Buenos Aires: IFLA, 2004. Available at http://www.ifla.org/IV/ifla70/prog04.htm
2. Casey, M. E. & Savastinuk, L. C.: Library 2.0: Service for the next-generation library. *Library Journal,* 26.Available at http://www.libraryjournal.com/article/CA6365200.html
3. Directory of Open Access Journals (DOAJ): http://www.doaj.org
4. FAO & UNESCO: *Digitization and digital libraries module (in CDROM)*. Rome: FAO, 2005.
5. FAO & UNESCO: *Management of electronic documents module (in CDROM)*. Rome: FAO, 2005
6. Lenhart, A., Fallows, D., & Horrigan, J.: *Content Creation Online: 44% of U.S. Internet users have contributed their thoughts and their files to the online world.* Available at http://www.pewinternet.org/pdfs/PIP_Content_Creation_Report.pdf
7. LIS Core Cluster: http://www.db.dk/
8. LISWiki. Web site: http://liswiki.org/wiki/
9. Maness, J. M.: *Library 2.0 Theory: Web 2.0 and Its Implications for Libraries*. Webology, 3(2), 2006. Available at http://www.webology.ir/2006/v3n2/a25.html
10. Montague, R.: *Web-based information science education (WISE)*. Oslo: IFLA, 2005. Available at http://www.ifla.org/IV/ifla71/Programme.htm
11. OATD: *Open access theses and dissertations*. Available at http://www,oatd.org
12. Stephens, M.: *ALA TechSource - Do Libraries Matter: On Library & Librarian 2.0*. Available at http://www.techsource.ala.org/blog/2005/11/do-libraries-matter-on-library-librarian-20.html
13. TICER courses on digitization: http://www.ticer.nl/
14. Wellman, B., & Haythornthwaite, C. eds.: *The Internet in everyday life*. Malden, MA: Blackwell, 2002.

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

RANGANATHAN STUDY
Paper – LIS 121
Full marks: 50

Theory: 40 Internal Assessment: 10

- Dr. S. R. Ranganathan – Childhood, education & early life
- Ranganathan as librarian
- Ranganathan's contribution in library classification, cataloguing, indexing, reference services and documentation
- Ranganathan's contribution on the theory and practice of library management
- Ranganathan and library movement in India
- Ranganathan and philosophy of library science
- Ranganathan as teacher
- Contribution of Ranganathan in LIS education
- Influence of Indian philosophy & religion on Ranganathan
- Ranganathan as author, Literary criticism of his writings
- Relevance of Ranganathan's ideas in digital world

Suggested Readings:

1. Carr, P.L. (2014). Reimagining the library as a technology: An analysis of Ranganathan's Five Laws of Library Science within the social construction of technology framework. *Library Quarterly*, 84(2), 152–164.
2. Das Gupta, A.K. (1965). *Essay in personal bibliography: Ranganathan Festschrift*, Volume 2: *Bibliography of writings on and by Dr. S.R. Ranganatha.* Bombay: Asia Publiching House.
3. Dudley, E. (*Ed.*). (1992). *S.R. Ranganathan*, 1892-1972 . New Delhi: Ess Ess.
4. Girja Kumar. (1992). *S.R. Ranganathan: an intellectual biography*. New Delhi: Har-Anand Publications.
5. Kaula, P.N.(*Ed).* (1965). *Library science today: Ranganathan Festschrift*, Volume 1: Paper contributed on *71st Birthday of Dr. S.R. Ranganathan* (12 August 1962). Bombay: Asia Publishing House.
6. Glassmeyer, S. (2010). Ranganathan 2.0. *AALL Spectrum*, 14(3), 22–24.
7. Goldup, S.J. (2010). *Public libraries in the digital age: Investing the implementation of Ranganathan's Five Laws of library science in physical and online library services.*

   School of Information Management, Victoria University of Wellington.
8. Gorman, M. (1995). Five new laws of librarianship. *American Libraries*, 26(8): 784–785.
9. Noruzi, A. (2004). Application of Ranganathan's laws to the Web. *Webology,* 1(2). Retrieved from: http://www.webology.org/2004/v1n2/a8.html.
10. Ranganathan, S R. (1959). *Library Administration*. Bangalore: Sarada Ranganathan Endowment for Library Science.

11. Ranganathan, S.R. (1966). *Elements of library classification* (2nd ed.). Bombay: UBS.
12. Ranganathan, S.R. (1967). *Prolegomena to library classification* (3rd ed.). Bombay:UBS.
13. Ranganathan, S. R. (1987). *Colon Classification* (7th ed.). Bangalore: Sarada Ranganathan Endowment for Library Science.
14. Ranganathan, S. R. (1988). *Classified Catalogue Code with additional rules for dictionary catalogue.* Bangalore: Sarada Ranganathan Endowment for Library Science.
15. Ranganathan, S. R.(1988). *The Five Laws of Library Science*. New Delhi: Sarada Ranganathan Endowment for Library Science.
16. Ranganathan, S R. (1989). *Library book selection*. Bangalore: Sarada Rangnathan Endowment for Library Science.
17. Ranganathan, S. R. (1991). Reference s*ervice*. Bangalore: Sarada Ranganathan Endowment for Library science.
18. Ranganathan, S. R. (2006). *Philosophy of library classification*. Bangalore: Ess Ess Publications.
19. Satija, M.P. (1992). *S.R. Ranganathan and the method of science*. New Delhi: Aditya Prakashan.
20. Sewa Singh. (1995). S.R. *Ranganathan: Birth centenary literature*. New Delhi: Ess Ess Publications.
21. Walter, S. (2012). Ranganathan redux: The "Five Laws" and the future of college and research libraries. *College and Research Libraries,* 73(3), 213–215.

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

INFORMATION ANALYSIS AND CONSOLIDATION (PRACTICE)

Paper – LIS 122
Full marks: 50

Project: 40 **Viva –voce: 10**

- Design and development of an IAC product like trend report, state-of-the-art report, digest, etc.
- Submission of the report
- Seminar Presentation + Viva voce

Suggested Readings:

1. Chatterjee, A (2013). *Elements of information analysis, consolidation and repackaging (IACR)*; Kolkata: Prova Prakashani
2. Chatterjee, A. (2017). *Elements of Information Organization and Dissemination*. Oxford: Chandos Publishing
3. Seetharama, S. (1997). *Information Consolidation and Repackaging: Framework, Methodology, Planning*. New Delhi: Ess Ess Publications

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

DIGITAL INFORMATION SOURCES IN LIS RESEARCH

Paper – LIS 123
Full marks: 50
Theory: 20 Internal Assessment: 5
Practice:20 Internal Assessment: 5

The course will identify various digital information sources required for LIS research. The students will learn to handle and use some of these sources. The sources are enlisted below. Necessary other sources will be added from time to time.

- EBSCO
- Emerald insight
- Google Books
- Google Scholar
- Internet Public Library
- LISA
- MEDLINE
- NDLTD.
- OATD
- Open DOAR
- Project Muse
- PROQUEST
- PubMed
- Sciencedirect
- SCOPUS
- Springernet
- Web of Science

Suggested Readings:

1. Aversa, E. S. and Blazek, R. (1994) *The humanities: A selective guide to information sources*. Englewood, CO: Libraries Unlimited.
2. Buttlar, L. (1999). Information sources in library and information science doctoral research. *Library & Information Science Research*, 21(2),227-245.
3. Devine, J. and Egger-Sider, F. (2009).*Going beyond Google: The Invisible Web in learning and teaching*. New York: Neal-Schuman.
4. Dubnjakovic, A. & Tomlin, P. (2010). *A practical guide to electronic resources in the humanities.* Oxford: Chandos.
5. Mann, T. (2005). *The Oxford guide to library research* (3rd ed.). Oxford: Oxford University Press.
6. Miller, W. (ed) *Academic research on the Internet: Options for scholars and libraries.* New York: Haworth Information Press.
7. Sherman, C. & Price, G. (2001). *The Invisible Web: Uncovering information sources*

search engines can't see. Medford, N. J.: Information Today.

8. Weiss, A. (2014). *Using massive digital libraries : A LITA guide.* Chicago: American Library Association.
9. Whitlatch, J.B. & Searing, S.E. (Eds.). (2014). *Guide to reference: Essential general reference and library science sources.* Chicago: American Library Association.

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SOFTWARE IN LIS STUDIES (Practice)

Paper: LIS 124

Full Marks: 50

Practice: 40 Internal Assessment: 10

Course will identify software's required for LIS research. The students will learn to install and handle some of these software's independently. Some examples are given below. Any other software to be added as needed.

- Content management software e.g., Drupal, Joomla, Moodle, Wordpress
- Concept mapping software e.g., CMapTools
- Data and text mining software e.g., Weka
- Database management software e.g., MariaDB, MySQL, PostgreSQL
- Digital library software e.g., DSpace, E-Print, GSDL
- Enterprise search engines e.g., Lucene, Solr
- Graphics software e.g., GIMP
- Information visualization software, e.g., GraphViz, Xmdvtool
- Knowledge networking software e.g., Pajero
- Knowledge management software e.g., Xmind
- Library automation software e.g., Koha, Evergreen
- Middleware software e.g., JBoss, Jakarta Tomcat
- Mind mapping software e.g., Freemind, Coggle
- Reference management software e.g., Zotero
- Resource discovery software e.g., Vufind
- Semantic web tools e.g., Protégé
- Virtual Machine Emulator e.g., VMWare
- Wiki software e.g., MediaWiki
- Anti-plagiarism software e.g. PlagiarismCheckerX

Suggested Readings:

1. Bartholomew, D. (2014). *MariaDB cookbook.* Birmingham: Packt Publishing.
2. Biemann, C. & Mehler, A. (Eds.). (2014). *Text mining: From ontology learning to automated text processing applications: Festschrift in honor of Gerhard Heyer.* Heidelberg: Springer.
3. Canavan, T. (2011). *CMS security handbook: The comprehensive guide for WordPress, Joomla, Drupal, and Plone.* Indianapolis, IN: Wiley.
4. Derr, M. & Symes, T. (2011). *Joomla: Visual quickstart guide* (2nd ed.). Berkeley, CA: Peachpit Press.
5. Engard, N.C. (2010). *Practical open source software for libraries*. Oxford: Chandos.

6. Fitzgerald, B. et al. (2011). *Adopting open source software : A practical guide.* Cambridge, Mass.: MIT Press.
7. Horridge, M. (2011). *A practical guide to building OWL ontologies using Protégé 4 and CO-ODE tools* (1.3ed.). Manchester: University of Manchester.
8. Hillar, S.P. (2012). *Mind mapping with FreeMind: Easy recipes to increase productivity and creativity using powerful free tools—FreeMind and Freeplane.* Mumbai: Packt Publishing.
9. Karambelkar, H. (2013). *Scaling Big Data with Hadoop and Solr: Learn exciting new ways to build efficient, high performance enterprise search repositories for Big Data using Hadoop and Solr.* Mumbai: Packt Publishing.
10. Kumar, J. (2015). *Apache Solr search patterns: Leverage the power of Apache Solr to power up your business by navigating your users to their data quickly and efficiently.* Mumbai: Packt Publishing.
11. Laliwala, Z. & Shaikh, A. (2013). *Web crawling and data mining with Apache Nutch: Perform web crawling and apply data mining in your application.* Mumbai: Packt Publishing.
12. Library and Information Technology Association. (2002). *Major open source web finding tools and digital library systems for librarians*. Palm Desert, CA: American Library Association.
13. Maimon, O. & Rokach, L. (Eds.). *Data mining and knowledge discovery handbook* (2nd ed.). New York: Springer.
14. Moon, B.M. et al. (2011). *Applied concept mapping: Capturing, analyzing, and organizing knowledge.* Boca Raton: CRC Press.
15. Okada, A., Shum, S.J.B. & Sherborne, T. (Eds.). (2014). *Knowledge cartography: Software tools and mapping techniques.* London: Springer.
16. Papy, F. (2016). *Digital libraries: Interoperability and uses.* London: ISTE Press.
17. Robertson, J. G. & Fitzgerald, B. (2013). *Drupal for Education and E-Learning: Create web-based, content-rich tools for teaching and learning* (2nd ed.). Mumbai: Packt Publishing.
18. Tiggeler, E. (2013). *Joomla! 3 Beginner's Guide: A clear, hands-on guide to creating perfect content managed websites with the free Joomla! CMS.* Mumbai: Packt Publishing.

M.PHIL. IN LIBRARY AND INFORMATION SCIENCE

DISSERTATION

Full marks: 100

Dissertation: 75 Viva voce: 25

After the successful completion of the M.Phil. Qualifying Examination, candidates will be required to submit a dissertation on any specialized area of their choice, under the supervision of one internal supervisor to be allotted by the M.Phil. Committee His/Her certification will be essential for submission of the same for which a deadline is also to be fixed by the M.Phil. Committee. All the dissertations will be sent for external evaluation. Depending upon the number of candidates, the actual number of external examiners is to be fixed by the M.Phil. Committee for each batch. Preferably, any/all of the external examiners will be invited to conduct the Viva voce examination of all the candidates.