



# Objectives

The objectives of this course are -

- to make the research scholars proficient in methods and techniques of research and their application to the various problems in Library and Information Science;
- to give the research scholars specialised knowledge in respect of selected areas in Library and Information Science;
- to prepare specialized information professionals for managing changes in information organisation and access to information; and
- to explore feasibility of application of ICT in general and Web technologies in particular for information organisation and access.

# Minimum Eligibility Criteria

The minimum eligibility criteria for admission in MPhil programme is 50% marks in each course paper. While minimum eligibility criteria for the admission in PhD programme is 55% marks in each course paper. However, the SC/ST/OBC candidates will be given 5% relaxation of marks in both PhD and MPhil programme.

Course Structure			
Course No.	Course Title	Level	Full Marks
Course-LIS501	: Research Methodology	Inter School	100
Course-LIS502	2: Knowledge Society and LIS Research	Multidisciplinary	100
Course-LIS503: ICT Application and Digital Library		Subject Specific	100
Course-LIS504	: Term Paper	Research Specific	100
Total Marks:			400

**Note**: *The candidate who scores below* 50% *marks in each paper will be required to clear the paper(s) in the next examination.* 

Course -LIS501:Research Methodology

Course Level: Inter School Level Course Full Marks: 100

## Objectives

- > To introduce the different methods and techniques of research;
- To familiarise in the use of data collection tools, organisation and representation of data;
- > To introduce different data analysis techniques;
- > To guide in preparing research report.

# Unit 1: Knowledge and Research

- Knowledge: Universe of knowledge; Modes of acquiring knowledge.
- Research: Definition, concept, objectives, and need; Research ethics.
- Scientific enquiry and Scientific Method: Validity, reliability, objectivity and subjectivity.
- Research Problem: theoretical and applied; methods of identification.
- Literature Search: Purpose and objectives in research, procedures; Review of related literature.

#### Unit 2: Research Questions, Hypothesis and Research Design

- Research questions: Need, importance and formulation.
- Hypothesis: Definition, meaning, formulation, types and testing.
- Research process: concept, steps, and variables.
- Research Design: Aims, objectives, scope, components and limitations; Problems in research design.
- Literature survey: Need and purpose.

## Unit 3: Research Methods and Data Collection Tools

- Research Methods: Basic, Applied and Action research;
- Survey, Historical, and Experimental research.
- Descriptive, comparative, exploratory, case study and Delphi technique;
- Collection of primary and secondary data; Qualitative data Vs Quantitative data; Secondary data: Documentary and Non-documentary sources.
- Tools of data collection: Questionnaire, Interview and Observation; Scales and Check Lists.

#### Unit 4: Data Analysis Tools and Techniques

- Sampling methods: Types and techniques.
- Data analysis technique: Statistical techniques Measures of Central Tendency, Mean, Mode, Median; Measures of Dispersion, Variance and Covariance; Standard deviation;
- Coding and Tabulation; Graphical Presentation of data: Bar diagrams, Piechart, Line Graphs and Histograms.
- Software for statistical analysis: SPSS / MS-Excel.
- Testing of Hypothesis.

# Unit 5: Research Report

- Report Writing: Structure and parts of Research Report.
- Presentation of findings; Preparation of Abstract;
- Footnotes, pagination, Annexure / Appendices; Proof Reading;
- Citation Style: Bibliography-purpose and scope. References Vs Bibliography. Citation Standards for Print, Digital and Internet resources-MLA STYLE SHEET, APA, Chicago Manual. Reference Vs Plagiarism.
- Preparation and Presentation of Research Article.

## **Reading List**

1.	Frankfort, Chava and Nachims, David. Research methods in social sciences. 6 <sup>th</sup> Ed. Worth Publisher, New York.1999.
2.	Adams, Gerald R and Schvaneveldt, Jay D. Understanding research methods.
-	2 <sup>nd</sup> Ed. Longman, New York. 1991
3.	Babbie, Earl. Survey research methods. 2 <sup>nd</sup> Ed. Belmont, California, Wadsworth. 1990.
4.	Bailey, Kenneth D. Methods of social research. 4the Ed. Free Press, New York. 1994.
5.	Backstrom, Charles H and Hursh, Gerald D. Survey research. 2 <sup>nd</sup> Ed. John
5.	Wiley and Sons, New York, 1981.
6.	Blaxter, Loraine, Hughes, Christina and Tight, Malcom. How to research.
	Viva Books, New Delhi, 2002.
7.	Festinger, Leon and Katz, Daniel. Research methods in social sciences. Amerind, New Delhi. 1970.
8.	Fowler, Floyd J. Jr. Survey research methods. 3 <sup>rd</sup> Ed. Sage, California. 2001.
9.	Ghosh, B. N. Scientific methods and social research. Sterling, New Delhi. 1982
10.	Goode, William J and Hatt, Paul K. Methods in Social research. McGraw- Hill, New York. 1952.
11.	Gray, George and Guppy, Neil. Successful surveys: Research methods and
11.	practice. $2^{nd}$ Ed. Harcourt Brace, Toronto. 1999.
12.	Reddy, T. Subbi and Rao P. Bappa. Research methodology and statistical
	measures. Reliance Publishing House, New Delhi. 1995.
13.	Young, P. V. Scientific social survey and research. Prentice Hall, New Delhi. 1982.
14.	Phillips, D. L. Knowledge from what: Theories and methods in social research. Rand McNally, Chicago. 1971.

Course-LIS502:Knowledge Society and LIS Research

Course Level: Multidisciplinary Full Marks: 100

## Objectives

- > To familiarise with knowledge society and knowledge organisation.
- > To understand modern management of Library and Information centres.
- > To understand trends of research in Library and Information Science.
- > To identify and use of digital information resources on LIS.

## Unit 1: Library, Information and Knowledge Society

- Information Society, Knowledge Society: Definition, Need and Purpose
- Library Profession: Professional Ethics
- Library Legislation: Need & Purpose
- Copy Right, Intellectual Property Right (IPR) and Digital Right Management (DRM)
- National Knowledge Commission: Recommendations and Implication in LIS

## Unit 2: Modern Methods of Knowledge Organisation

- Modern trends in Library Classification
- Trends in Library Cataloguing : OPAC and WebOPAC
- Standards ISBD, CCF, ISO-2709, Z39.50 and RDA
- Metadata- MARC and Dublin Core
- Sources of Information : Primary, Secondary and Tertiary ; Web / Digital Resources: Evaluation of reference source; Abstracts and indexes, E-journals, E-books and ETDs

#### Unit 3: Modern Management in Library and Knowledge Resource Centre

- Principles of Management: Implications in LKRC
- Human Resource Management: Concept, need and purpose
- Job Evaluation & Performance appraisal in LICs
- Total Quality Management: Definition, scope and purpose and application to Libraries and information centres
- Knowledge Management: Tools and Techniques

#### Unit 4: Research Methods, Techniques and Tools in LIS

- Research Methods in LIS: Historical Research, Survey Research and Experimental Research
- Case Study, Observation Method, Scientific Method, Delphi Method Sampling Techniques
- Data Collection Tools : Questionnaire, Interview, Schedule, Observation, Scales and Check Lists, Historical / recorded,
- Bibliometric Study: Bibliometric Laws, Citation Analysis, Scientometrics, Informetrics and Webometrics
- Computerized data analysis: SPSS / Excel

# Unit 5: Recent Trends in LIS

- Literature Review, Critical Review of Research in LIS in India.
- Sources of Information on Internet: DOAJ, Wikipaedia, Web Resources.
- Citation Style: Structure, Guidelines for Citation / References
- Modern trends of Research in LIS: Electronic theses and dissertations;
- Designing project proposals, Funding agencies, and LIS Schools

## Reading List

- 1. Glazier, Jack D. & Hall, Peter M., eds.: Qualitative Research in Information Management. Englewood, CO: Libraries Unlimited, 1992.
- 2. Gorman, G.E. & Clayton, Peter: Qualitative research for the information professional: a practical handbook. 2nd ed. London: Facet Publishing, 1997.
- 3. Hafner, Arthur W. Descriptive Statistical Techniques for Librarians. 2nd ed. Chicago: American Library Association, 1997.
- 4. Statistical Analysis: A Handbook Supporting Library Decision Making. Norwood, NJ: Ablex Publishing Corporation, 1988.
- Kraft, Donald H. & Boyce, Bert R.: Operations Research for Libraries and Information Agencies: Techniques for the Evaluation of Management Decision Alternatives. SanDiego: Academic Press, 1991.
- Losee, Robert M., Jr. & Worley, Karen A.: Research and Evaluation for Information Professionals. San Diego: Academic Press, 1993.
- Mellon, Constance A.: Naturalistic Inquiry for Library Science: Methods and Applications for Research, Evaluation, and Teaching. New York: Greenwood, 1990.
- 8. Moore, Nick: How to Do Research. 2nd ed. London: Library Association. 1997.
- 9. Krishan Kumar. Research methods in library and information science. Rev Ed. Har-Anand Publications, New Delhi. 1999.

Course Level: Subject Specific Full Marks: 100

## Objectives

- To acquaint the students with the concepts of library automation
- > To understand the library networks in Indian perspectives.
- To develop skills in organisation of digital information bearing objects
- To know the process of design and development of digital library systems

## **Unit 1: Library Automation**

- Library Automation : Planning and Implementation
- Library Management Software; Information Search strategies; Software selection criteria; OPAC and Web OPAC
- RFID Technology and Electronic Surveillance
- Library automation scenario in India with special reference to NE India
- DBMS: Creation of Database using any DBMS Package : SOUL / KOHA

## Unit 2: Library Networking

- Library Networks: Library Networking in Indian perspectives: INFLIBNET, DELNET; IFLANET
- Library consortia in Indian context UGC-INFONET, INDEST, CSIR & Others E-Resources Consortia
- Digital Library: Meaning, digitization, planning and steps; Digital Preservation
- Institutional Repositories: Need and Benefits; OAI and Metadata harvesting,
- Internet and Web 2.0

# **Unit 3: Digital Information Resources on LIS**

- Digital Information Resources and formats of digital resources
- Subject Gateways and Digital Libraries on LIS, Subject Directories in Web.
- Journal Portals, Publisher's Portals, Book Reviews, Book Selection.
- Virtual Reference Tools: Commercial Tools (e.g. Xrefer.com), Cross-Publishers.
- Data mining and data warehousing

## Unit 4: Web Technology & Interactive Digital Resources

- Interactive Digital Information Resources: Nature, Features and Types
- LIS Discussion Forums and Mailing Lists (ListServs) LIS in general and Lists
- Blogs and Biblioblogsphere: Nature, Features, Types, Projects and Services
- Wikis and Wikipedias in LIS: Nature, Features, Types, Projects and Services
- Library 2.0 Tools: Information Mashup, Social Network etc.

## Unit 5: Design and Development of Digital Library

- Traditional, automated, digital and virtual library systems comparative study
- Digital Library Development: Hardware, Software, Process, File formats, Issues, policies and principles
- Free/Libre Open Source Software (FLOSS): GSDL, MyLibrary, WWWISIS, GENISIS etc.
- National & International digital library systems
- Evaluation parameters and models

- 1. Carnaby, P: Next generation e-learning and digital information resources. Buenos Aires:
- 2. FAO & UNESCO: Digitization and digital libraries module (in CDROM). Rome: FAO, 2005.
- 3. FAO & UNESCO: Management of electronic documents module (in CDROM). Rome: FAO, 2005
- 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>
- LIS Core Cluster: http://www.db.dk/
- LISWiki. Web site: http://liswiki.org/wiki/
- 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>
- Montague, R.: Web-based information science education (WISE). Oslo: IFLA, 2005.
- 9. Wiki: http://en.wikipedia.com/wiki/
- 10. World list of LIS schools: <u>http://informationr.net/wl/</u>

### Course-LIS504:Term Paper

Course Level: Research Specific Full Marks: 100

**Objectives:** Each scholar has to write a term paper in an area of Library and Information Science under the supervision of a respective guide of the department. On following topic the research students have to write one Term Paper Examination. At the beginning of the session, the scholars have to select the topic with the consultation of the supervisor and at the end of the semester a students are required to submit a Dissertation /Report to the Examination Department of the University duly forwarded through the respective supervisors for evaluation.

Following are some illustrative topics which are not limited on which the scholars may select for Term Paper:

- Collection Development
- Public Library Movement in India
- Preservation and Conservation of Manuscripts
- National Manuscript Mission
- Digital Preservation
- Library Automation and Networking
- Resource Sharing amongst University Libraries
- National Library Networks: DELNET and INFLIBNET
- Library Consortia for E-Resources
- INDEST / UGC-INFONET Digital Library Consortia
- Internet and Web Applications
- ► Library 2.0
- Web 2.0 and its impact on Libraries
- Semantic Web
- Digital Library Initiatives in India
- Institutional Repositories
- Open Source Software
- Open Access Movement : National and International Scenario
- Knowledge Organisation in Digital Era
- Storage Media
- Metadata: MARC and Dublin Core Standards
- Web technologies and access systems
- Common Gateway Interface (CGI) architecture and programming tools
- ➢ (PERL, PHP, JSP)
- Web databases
- Web-enabled DBMS Relational and Bibliographic DBMS
- Information retrieval in digital library systems
- Digitization and Collection development
- Free/Libre Open Source Software (FLOSS)
- Centralized processing and distributed access systems
- Evaluation of digital library systems