

Scheme and Syllabus for M.L.I.Sc
Course Structure & Mark Distribution

Semester	Course Number	Course Title	Marks		Total
			Internal Assessment	End Semester Exam (3 hrs)	
I	LISM51	Information Knowledge and Communication	25	75	100
	LISM52	Information Processing and Retrieval	25	75	100
	LISM53	Information Technology Applications (Theory)	25	75	100
	LISM54	Information Technology Applications (Practical)	25	75	100
	LISM55	Information Systems and Services	25	75	100
		Total			500
II	LISM56	Information Systems Management	25	75	100
	LISM57	Research Methodology	25	75	100
	LISM58	Dissertation and Viva-voce examination	-	75+25	100
	LISM59	Technical communication	25	75	100
	LISM510	Statistical methods	25	75	100
		Total			500
		Grand Total			1000

Syllabus

First Semester

LISM51: Information, Knowledge and Communication

Unit 1 Information Science as a discipline. Definition and scope: Genesis and development; Basic areas of concern; Relationship with other disciplines: Librarianship, Documentation and Information Science

Unit 2 Properties and behavior of information: Data, Information and Knowledge; Nature and Properties of information; Growth process; Growth of publications; Ageing and
Obsolescence of publications; Bibliometric laws and models; Informetrics.

Unit 3 Communication Process: Communication models; Formal and Informal channels of Communication; Invisible colleges, Technological gatekeepers; Barriers to
Communication process; Role of library in communication.

Unit 4 Sociology of information: Information use and user studies, methods of collecting Information about user needs; Patterns of user behavior.

Unit 5 Economics of information: Information as a resource; Information industry; Cost
Cost analysis of information systems; Information audit; Marketing of information
Products and services.

References

1. Andal, N. Communication theories and models. Mumbai, Himalaya, 2005.
2. Atherton, Pauline. Handbook of information systems and services. Paris. Unesco, 1977.
3. Debons, Anthony et al. Information Science: an integrated view. Boston: G.K. Hall, 1988.
4. De Saez, E.E. Marketing concepts for libraries and information services. London: Library Association, 1994.
5. Egghe, Leo and Rousseau, Ronald. Introduction to informetrics: quantitative methods in Library, Documentation and Information Science, Amsterdam, Elsevier, 1990.

6. Feather, John. The information Society; a study of continuity and change, London: facet, 2008.
7. Henezel, S.M. The information audit: a practical guide, Grinsten J. Bowker Saur, 2000.
8. Kochen, M, ed. Growth of knowledge: readings on organization and retrieval of information, New York, Wiley, 1967.
9. McGarry, K.J. Changing context of information: an introductory analysis. 2nd ed. London: Library Association, 1993.
10. McGarry, K.J. Communication, Knowledge and librarian, London, Clive Bingley, 1975.
11. McGarry, K.J. Mass communication. London, Clive Bingley, 1972.
12. Meadows, A.J. ed. Knowledge and communication: essays on the information chain. London: Library Association, 1991.
13. Norton, Melanie J. Introductory concepts in information science, New Jersey: Information Today, 2008.
14. Saracevic, Tefko, ed. Introduction to information science, New York, Bowker, 1970.
15. Seetharama, S. Guidelines for the planning of libraries and information centres. Calcutta, IASLIC, 1992.
16. Vickery, Brian C and Vickery, Alina. Information Science in theory and practice. 3rd ed. Munchen, K.G. Saur, 2004.

LISM52: Information Processing and Retrieval (Theory)

- Unit 1** Universe of knowledge and its characteristics; Modes of formation of subjects; Intellectual organization of information for storage and retrieval; Mapping of Knowledge in classification schemes.
- Unit 2** Subject indexing languages: Semantics and syntactic; Indexing models, Presentation And post co-ordinate indexing systems – and overview: Chain indexing PRECIS, POPSI, Uniterm indexing, Natural language indexing and automatic indexing.
- Unit 3** Design of indexing languages: Classification schemes and thesauri, Vocabulari control, Construction of thesaurus.
- Unit 4** Evaluation of Information Retrieval Systems: Parameters of evaluation: Trends in Evaluation studies.

Unit 5 Bibliographic Record Format: Standards for bibliographic record format – an overview: MARC, UNIMARC, ISO 2709, CCF.

References

1. Advanced indexing and abstracting practices/ R.C.Parik.-New Delhi, EssEss, 2000.
2. Cognitive paradigms in knowledge organization / International ISKO Conferenc, Nadras, 1992, Bangalore: SaradaRanganathan Endowment for Library Science, 1992.
3. Information storage and retrieval systems: theory and implementation / Gerald J. Kowalski and Mark T. Maybury – 2nd ed.-London: Kluwer Academic Publishers, 2009.
4. Index and indexing systems / R.G.Prasher. – New Delhi: Medallion Press, 1989.
5. Indexing and abstracting in theory and practice / F.W.Lancaster. 3rd ed.-Champaign, Illinois, University of Illinois Graduate School of Library and Information Science, 2003.
6. Indexing systems: concepts, models and techniques / edited by T.N.Rajan.-Calcutta, IASLIC, 1981.
7. Information retrieval / C.J.Van Rijisbergen.-2nd ed.-London: Butterworths, 1979.
8. Information retrieval systems: characteristics, indexing and evaluation/Wilfrid F.Lancaster.-2nd ed.- New York: John Wiley, 1993.
9. Introduction to cataloguing and classification / Arlene G.Taylor.-10th ed./assisted by David P. Miller. Westport: Libraries Unlimited, 2007.
10. Introduction to modern information retrieval/C.G.Chowdhury.-3rd ed. London, Facet Publications, 2010.
11. Progress and problems of information retrieval/David Ellis, 3rd ed. London, Library Association, 1996.
12. Subject analysis in online catalogs / Hope A. Olson and John J.Boll.-2nd ed.-Englewood Libraries Unlimited, 2001.
13. Subject approach to information / A.C.Foskett.-4th ed.-London: Clive Bingley, 1982.
14. Subject indexing systems: concepts, models and techniques / edited by S.B.Ghosh and J.N. Satpathi.-Calcutta: IASLIC, 1998.
15. Thesaurus construction: a practical manual / Jean Aitchison and Alan Gilchrist.-London: Aslib, 1972.

LISM53: Information Technology Applications (Theory)

Unit 1 Development of Information Technology: Impact of Information Technology in Libraries and information centres.

Unit 2 Internet: Basic features and tools: Network based information services, connectivity: Dial up, lease line, ISDN, Digital subscriber lines, Email, SMTP, Wireless, Protocols: FTP, HTTP, Web browser: Netscape navigator, Internet explorer, Web servers, web Tools, Search engines, internet security, Web 2.0.

Unit 3 Software packages: Planning and implementation of Library automation, Alice for Windows, LIBSYS, Soul, Open source library software packages; Library software Packages developed in India (General study)

Unit 4 Online information systems and services: Online databases in various subjects. Database producing agencies and vendors. Online information search, Search strategy, Search logic, Hypertext, Hypermedia, Markup languages, CDROM and multimedia technologies.

Unit 5 Digital Libraries: Genesis, Definition, Objective and scope, Image formats, audio Formation, storage media formats, software and hardware for digital libraries, OCR, Image editing software, Input capture devices, scanners, digital and movie camera, Data Ware housing, data mining and metadata.

Unit 6 Artificial Intelligence, Expert systems, Systems analysis.

References

1. Phil, Bradley, How to use Web 2.0 in your library, London, Facet publishing, 2007.
2. Peter Zorkozy and Nicholas heap, Information technology: An introduction, London, Pitman publishing, 1995.
3. Rowley, Jennifer. The electronic library, UK, Facet publishing, 1998.
4. Kashyap, Madan Mohan and Neelameghan, A. Computer-based library information

Systems designing techniques, New Delhi, EssEss Publications, 2006.

5. MuhammedRiaz. Advanced indexing and abstracting practices. New Delhi, Atlantic publishers, 1989.
6. Rao, I.K.Ravichandra. Selection of hardware and software In: Library Automation, 1996, Pp.154-55.
7. Encyclopedia of Computer Science, vol.1. RohitKhurana, New Delhi, **APH Publishing**.
8. Williams, Brian and Sawyer, Stacey. Using information technology, 11th ed. McGraw-Hill Education, 2014.

LISM54: Information Technology Applications (Practical)

Unit 1 CDS/ISIS, WINISIS

Unit 2 SOUL, KOHA

Unit 3 Internet search, search strategy, E-mail

Unit 4 Website design, HTML, XML, Java Graphics and presentation packages, photo Print, Corel draw

LISM55: Information Systems and Services

Unit 1 Components of an information system. Library as an information system; Functions And services of other information systems; Documentation centres, data banks, Referral centres, information analysis centres, clearing houses etc.

Unit 2 Information systems and services such as AGRIS, BIOSIS, CAS, INIS, INSPEC, MEDLINE, Web of Science, Scopus, Science Direct, Web Discovery Services and OCLC.

Unit 3 Information systems and networks in India: Information Systems in Science and Social Science, NICNET, ERNET, CALIBNET, DELNET, INFLIBNET.

Unit 4 Machine readable databases and their online access: Content and structure of database Communication system required; Cost of online search; Vendors CD ROM databasesand their search.

References

1. Seetharama, S. Ed. Libraries and information centres as policy making institutions.- Ess Ess publications, New Delhi, 1998.
2. Vickery, B.C. Information systems.-London, 1973.
3. Lancaster, F.W. and Beth. Technology and management in Library and Information services, Sandore, LA Publishing, London, 1977.
4. Neelameghan, A and Prasad K.N. Ed. Information systems, networks and services in India: Developments and trends, Vol.1. Ranganathan Centre for Information Studies, Bangalore, 1998.
5. Bryson, Managing information services: An integrated approach.-U.K. Gower, 1997.
6. Atherton, Pauline. Handbook of information systems and services: An integrated approach, Unesco, 1980.
7. Guha, B. Documentation and information: Services, techniques and systems. The World Press Pvt. Ltd, Calcutta, 1983.

Second Semester

LISM56: Information Systems Management

Anyone of the following (covering the areas listed as Units 1-6)

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|--------------------------------------|----------------------------------|
| 1. Science Information System | 5. Industrial Information System |
| 2. Agricultural Information System | 6. Academic Library System |
| 3. Health Information System | 7. Public Library System |
| 4. Social Science Information System | |

Unit 1 The nature and scope of the system. Growth and development of the system in India and the present scenario.

Unit 2 Planning of the system – guidelines

User community and the requirements

Unit 3 Information Sources available; Collection development; Technical organization.

Unit 4 Services to be offered

Unit 5 Personnel requirements; Financial requirements.

Unit 6 Evaluation, cost benefit analysis

References

1. Grogan, Denis, Science and Technology: an introduction to literature. 2nd ed. Clive Bingley, London.
2. Seetharama, S. Guidelines for planning of libraries and information centres, IASLIC, Calcutta, 1990.
3. Allen, T.J. and Cohen, S.I., Information flow in an R & D laboratory, 1966.
4. Atherton, Pauline. Handbook of information systems and services. Unesco, Paris, 1977.
5. Ris, Robi, S.A. Cost management for library and information services, Butterworths, 1985.
6. Lancaster, F.W. Guidelines for the evaluation of information systems and services. Unesco, Paris, 1978.
7. Lancaster, F.W. Information retrieval systems: Characteristics, testing and evaluation, Wiley, New York, 1968.
8. Lancaster, F.W. Measurement and evaluation of library services. Washington DC, International Resources Press, 1977.
9. Wilson, A. Planning approach to library management. Library Association, London, 1975.

LISM57: Research Methodology

Unit 1 Research and its meaning: Types of research; Basic, Applied, Historical, Survey, Experimental research, Scientific method and Spiral of Scientific method.

Unit 2 Choice of a research problem. Factors affecting the choice. Formulation and definition of the problem. Statement of the objectives of the study. Formulation of the hypothesis. Different types of hypothesis. Areas of research in Library and Information Science.

Unit 3 Methods of data collection – Literature search, Sampling, Survey using questionnaire, Interview etc. Observation, Experimentation, Case Study, historical, Delphi technique. And brainstorming technique.

Unit 4 Report writing – Organisation of the report, tables, graphs, citations etc.. Evaluation of the research report.

References

1. Kothari, C.R. Research methodology: Methods and techniques, New Delhi, Wiley Eastern, 1990.
2. Busha, C.H. and Harter, S.P. Research methods in librarianship: Techniques and Interpretations, New York, Academic Press, 1980.
3. Gupta, S.P. Statistical methods, Delhi, Sultan Chand.
4. Line, M.B. Library surveys: An introduction to the use, planning, procedure and presentation of surveys, 2nd ed. London, Clive Bingley, 1952.
5. Balasubramanian, P. Research methodology in Library Science, Delhi, Deep & Deep, 2011.
6. Powell, Ronald R. Basic research methods for librarians. 1985. Albex, Greenwood, New Jersey.
7. Krishan Kumar. Research methodology in Library Science: New Delhi, Alfa Publications, 2008.
8. Guthrie. Gerard. Basic research methods: An entry to social science research. Sage, 2010.

LISM58: Dissertation and Viva-voce

The students have to work on a topic in library and information science under the guidance of a teacher applying appropriate research technique(s) and prepare a dissertation.

Appropriate size of the dissertation shall be 100 typed pages in A4 size paper. The students should also appear for a viva voce.

LISM59: Technical Communication

Unit 1 Communication: Verbal and non verbal communication; Characteristic features of Technical writing, Reader-writer relationship; Language as a medium for Communication; Readability and text, aberrations in technical writing, Visual Presentation of data, figures, tables etc.

Unit 2 Organisation and presentation of data in abstracts, textual matter, references.

Preparation of popular articles. Technical Reports, monographs, house journals, Content development and web page design.

Unit 3 Repackaging of information: Preparation of review articles, trend reports, State-of-the-art reports, progress reports.

Unit 4 Editorial process: Copy editing, editorial tools, Use of Style manuals, proof reading.

References

1. Chandler, Harry E. Technical writers handbook. Ohio, Metals park.
2. Meenakshi Raman and Sangeetha Sharma. Technical communication: Principles and Practice.
3. Oliver, Paul. Writing your thesis. New Delhi, Vistaar Pub. 2004.
4. Pauley, Steven E and Riordan, Daniel. Technical report writing. Delhi, AITBSm 1996.
5. Saracevic, T and Wood, J.S. Consolidation of information: A handbook of evaluation, restructuring and repackaging of scientific and technical communication, Unesco.
6. Seetharama, S. Information Consolidation and repackaging. New Delhi, Ess, Ess, 1997

LISM510: Statistical Methods

- Unit 1** General introduction – Functions, Applications and limitations of statistics.
- Unit 2** Collection of data: Sampling techniques, sampling error.
- Unit 3** Summarisation of data: Tabular and graphical methods of presentation; measures of Central tendency – Mean, Median, Mode; Measures of variability – Range, Percentile, Interquartile range, variance, standard deviation, Measures of asymmetry, Measures of Correlation.
- Unit 4** Data analysis, Probability and probability distribution, Normal distribution, Binomial, Poisson, Chi square test, F distribution, t test.
- Unit 5** Testing of hypotheses: Regression, Correlation analysis; Analysis of variance; Scaling Techniques, Association of variables. Statistical packages, SPSS, IDAMS.

References

1. Simpson, J.S. Basic Statistics for Librarians. 2nd ed. London, Clive Bingley, 1983.
2. Aggarwal, Y.P. Statistical Methods; Concepts, Applications and computation. New Delhi, Sterling Publishers, 376 p.
3. Stephen, Peter and Hornby, Susan. Simple statistics for library and information Professionals. London; Library Association Publishing, 1997, 229 p.
4. Sardana, J.L. and Seghal, R.L. Statistical methods for librarians. New Delhi: EssEss Publications, 1982, 211 p.
5. Seghal, R.L. Applied statistics for library science research. New Delhi, EssEss publications, 396 p.
6. RavichandraRao, I.K. Quantitative methods in Library and Information Science, New Delhi, Wiley Eastern, 1983, 371