

UNIVERSITY OF MUMBAI

No.UG/162 of 2009

CIRCULAR :-

A reference is invited to the Ordinances, Regulations and syllabi relating to the degree of Master of Library and Information Science (M. L. I. Sc.) and to this office Circular No.UG/359 of 2003, dated 29th July, 2003 and the Head, University Department of Library Science, the Assistant Registrar, Sub-Centre, Ratnagiri and the Principal of the affiliated colleges in Arts, Science and Commerce are hereby informed that the recommendation made by the Faculty of Arts at its meeting held on 6th January, 2009 has been accepted by the Academic Council at its meeting held on 13th February, 2009 vide item No. 4.55 and that, in accordance therewith, the syllabus for the Master of Library and Information Science (M. L. I. Sc.) Course is revised as per Appendix and that the same has been brought into force with effect from the academic year 2009-2010.

MUMBAI-400 032

14th May, 2009

PRIN K VENKATARAMANT
REGISTRAR

To,

The Head, University Department of Library Science, the Assistant Registrar, Sub-Centre, Ratnagiri and the Principal of the affiliated colleges in Arts, Science and Commerce.

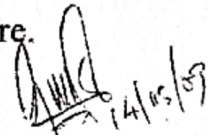
A.C./ 4.55/13/02/2009

No.UG/ 162 - A of 2009, MUMBAI-400 032

14th May, 2009

Copy forwarded with compliments for information to: -

1. The Dean, Faculty of Arts, Science & Commerce.
2. The Chairperson, Ad-hoc Board of Studies in Library and Information Science.
3. The Controller of Examinations.
4. The Co-Ordinator, University Computerization Centre.


(D.H. KATE)
DEPUTY REGISTRAR
(U.G./P.G SECTION)

Copy to: -

The Director, Board of College and University Development, the Deputy Registrar (Eligibility and Migration Section), the Director of Students Welfare, the Executive Secretary to the Vice-Chancellor, the Pro-Vice-Chancellor, the Registrar and the Assistant Registrar, Administrative sub-center, Ratnagiri for information.

The Controller of Examinations (10 copies), the Finance and Accounts Officer (2 copies), Record Section (5 copies), Publications Section (5 copies), the Deputy Registrar, Enrolment, Eligibility and Migration Section (3 copies), the Deputy Registrar, Statistical Unit (2 copies), the Deputy Registrar (Accounts Section), Vidyanagari (2 copies), the Deputy Registrar, Affiliation Section (2 copies), the Professor-cum-Director, Institute of Distance Education, (10 copies) the Director University Computer Center (IDE Building), Vidyanagari, (2 copies) the Deputy Registrar (Special Cell), the Deputy Registrar, (PRO), the Assistant Registrar, Academic Authorities Unit (2 copies) and the Assistant Registrar, Executive

UNIVERSITY OF MUMBAI



**REVISED SYLLABUS
FOR
MASTER OF
LIBRARY AND INFORMATION SCIENCE
(M.L.I.Sc.)**

(with effect from the academic year 2009-2010.)

MASTER OF LIBRARY AND INFORMATION SCIENCE

Details of the course and Revised syllabus for the degree of Master of Library and Information Science are as under:-

R.4333: The Scheme of the papers and the examination shall be as under :

Group A : Theory Papers.

Paper I	- Information and Communication	100 Marks
Paper II	- Management of Library and Information Centre	100 Marks
Paper III	- Organization of information	100 Marks
Paper IV	- Information and Communication Technology in Libraries	100 Marks
Paper V	- Research Methodology	100 Marks
Total for Theory Papers -		500 Marks
		100 Marks

Group B : Practicals (Details are in the syllabus)

200 marks

Group C : Project Report – its Presentation, Viva-voce, Term paper

Students shall appear for the **Groups A, B & C SIMULTANEOUSLY**. The details of the theory papers, practicals and project work, along with the reading lists of books are available in the syllabus.

The medium of Instruction and for examination for all the groups will be English.

Master of Library and Information Science

Group A – Theory Papers

100 Marks

3 Hours

No. of teaching Hours / unit

Paper - I Information and Communication

Objectives :

1. To understand the role of library in the communication process.
2. To study the multi dimensional role of the library.
3. To understand the concept of information society and its implications.
4. To analyse contemporary library scene with special reference to India.

Syllabus :

1. Library as a Social Institution : Library as cultural, educational, political and social institution. (8 hrs)
2. Library and Communication: Communication process in society – personal and mass communication, information diffusion, scholarly communication process, scientific communication, communication channels, models and barriers, role of library in the communication process. (8 hrs)
3. Libraries and Information Resource Centres in the changing environment : changing materials, services, attitudes, expectations, role enhancement, information literacy, global library. (6hrs)
4. Library Scenario : Contemporary library scenario in India with reference to each type of library in India, National Knowledge Commission of India (Libraries-Gateways to Knowledge), knowledge centres, role of NAAC. (6 hrs)
5. International Librarianship : International movement in bibliographic control, UBC, UAP, multilateral library programmes e.g. SAARC, ASTINFO, APINESS, IFLA- policy, statements, PAC,ALP, national and International standards in library profession, ISO 9000 series. (4 hrs)
6. Library Profession :Concept , criteria for determining LIS as profession, its relationship with other subjects, professional ethics, role of professional associations, education and training in LIS in U.S.A., U.K. and India. (4 hrs)

7. Information and Society : Data, information, knowledge, factors affecting growth of information, economics of information, information society – its genesis and characteristics, impact of information society on libraries, National Information Policy, censorship, fair use, right to information (including RTI Act). (10 hrs)
8. Information Scenario : Development of library and information centres, information analysis centres, data bank and data centres, database vendors, information brokers, translation banks. (6 hrs)

Eight hours will be spent for preparing annotated bibliography / literature review on a given topic, preparing a database, classroom assignments and seminars.

Select Reading List

Paper I : Information and Communication

1. Andal, N. : Communication theories and models. Mumbai, Himalaya, 1998.
2. Bahr, Alic Harrison (Ed.) : Future teaching roles for academic librarians. New York, Haworth press, 2000.
3. Barua, B.P. : National policy on library & information system. Bombay, Popular, 1992.
4. Bridges, K. Ed. : Expectations of librarians in the 21st century. Westport, Greenwood Press, 2003.
5. Brophy, P. : The library in the 21st Century – new services for the information age. London, Library Association, 2001.
6. Dossett, P. : Handbook of special librarianship and information work, 6th Ed. London, Aslib, 1992.
7. Foskett, D.J. : Pathways for communications : books and libraries in an information age. London, Clive Bingley, 1984.
8. Garvey, W.D. : Communication, the essence of science. Oxford, Pergamon, 1979.
9. Krzys, R & Litton, G. : World librarianship : a comparative study. New York, Marcel Dekker, 1983.
10. Line, Maurice : World of books and information : essays in honour of Lord Dainton. London British Library, 1987.
11. Mackenzie, G. and Sturgess, P. : Librarianship and information work worldwide - 2000. London, Bowker Saur, 2000.
12. Martin, William J. : Global information society, 2nd Ed. London, ASLIB, 1996.
13. Martyn, John, Vickers, Peter & Feeney, Mary (Eds.) : Information UK 2000. London, British Library, 1990.
14. McGerry, Kevin : Mass communication: selected readings for librarians, 2nd Ed. London, Clive Bingley, 1996.

15. McMenemy, David, Poulter, Alan and Burton, Paul F. : A Handbook of ethical practice : a practical guide to dealing with ethical issues in information & library work. Oxford, Chandos, 2007.
16. Meadows, Jack : Information & communication. London, Bowker, 1994.
17. Neelmeghan, A. : Information support for socio – economic development planning. Bangalore, SRELS, 1997.
18. Pedley, Paul : Essential law for information professionals, 2nd Ed. London, Facet, 2006.
19. S.R.E.L.S. : Information policies and cyber laws. Bangalore, SRELS, 2000.
20. Saunders, Wilfred L. : Towards a unified professional organisation for library & information science & services. London, LA, 1989.
21. Shera, Jesse H. : Foundations of education for librarians, New York, Wiley, 1972.
22. Webb, Jo & Powis, Chris : Teaching information skills theory and practice. London, Facet Publishing, 2004.
23. Woolls, B. & Sheldon, B. (Eds.) : Delivering life long continuing professional education across space and time. Munchen, K. G. Saur, 2001.

Paper II - Management of Library and Information Centres

100 Marks

3 Hours

No. of teaching hours / unit

Objectives :

1. To get familiar with principles and techniques of management.
2. To understand their application to the management of libraries and information centres.

Syllabus :

1. Management approach to Library :
 - i) Management – concept, definition and scope, management styles and approaches.
 - ii) Systems approach – Library as a system, environmental influence and responses, Operations Research.
 - iii) Management of change.
 - iv) Knowledge management. (8 hrs)
2. Planning: Need and importance of planning.
 - i) Types of plans – short term, long term, strategic, components of planning process, time and motion study, data flow diagram, SWOT analysis.
 - ii) Planning tools – MBO, PERT/CPM, DELPHI, MIS, decision tree, brain storming.
 - iii) Planning of library building and its interior. (8 hrs)
3. Organising : Purpose and need for organising, organisational structure, line and staff functions, departmentalisation, organisation charts, authority and decentralisation, quality circles, total quality management, quality audit, matrix structure, organising library and library departments. (6 hrs)
4. Human Resource Management:
 - i) Staffing – job description, recruitment, job analysis, training and development, peoples' skill (personal competencies, skills for communication, negotiation, decision making, assertiveness, time management), interpersonal relations, motivation, job enrichment, evaluation and appraisal.
 - ii) Leadership and Creativity – effective leadership in library, functions, activities and qualities of library managers, creativity and innovation, entrepreneurship.

- iii) Communication in library – methods and barriers.

5. Financial Management : (8hrs)

- i) Financial Planning – Sources of funds, funds generation, different types of budgets, accounting and auditing practices, costing, cost analysis of library services.
- ii) Control : Techniques, budgetary and non-budgetary techniques.

iii) Library Insurance, disaster management. (6 hrs)

6. Collection Management :

- i) Policies, selection, acquisition, maintenance.
- ii) Institutional repositories, consortia, aggregators, J-store.

(5 hrs)

7. Marketing : Identification of markets for libraries, market segmentation, information as a marketable commodity, marketing of library services and products, promotion techniques including use of electronic media, public relations, best and innovative practices, extension services, outreach services.

(6 hrs)

8. Evaluation and Feedback : Standards, measurement of performance, evaluation of services, Balance Scorecard, corrective measures.

(5 hrs)

Eight hours will be spent for preparing annotated bibliography / literature review on a given topic, preparing a database, classroom assignments and seminars.

Select Reading List

Paper II Management of Library and Information Centres

1. Allan, Barbara : Supervising and leading teams in LIS. London, Facet Publishing, 2007.
2. Awad, Elias M. & Ghaziri, Hassan M.: Knowledge management. Delhi, Pearson Education, 2003.
3. Baker, David : Strategic change management in public sector organizations. Oxford, Chandos Pub., 2007.
4. Baker, David : Strategic management of technology. Oxford, Chandos, 2004.
5. Brophy, Peter : Measuring library performance : principles and techniques. London, Facet Publishing, 2006.
6. Crawford, J. : Evaluation of Library & Information Services. London, Aslib, 1996.
7. Ceynowa, Klaus and others: Cost management for university libraries. Munchen, K. G. Saur, 2003.
8. Champman, Liz : Managing acquisition in library and information service.
9. Clayton, Peter & Gorman, G. E. : Managing information resources in libraries: collection management in theory and practice. London, Library Association, 2001.
- Cohn, John M. & others : Planning for integrated systems and technologies : a how to do manual for librarians. London, Facet Publishing, 2002.
10. Curzon, Susan Caro : Managing change, Rev. Ed. London, Facet Publishing, 2006.
11. De Sa'ez, Eileen Elliott : Marketing concept for libraries and information services, 2nd ed. London, Facet Publishing, 2002.
12. Evans, G. E. : Management techniques for librarians, 2nd ed. New York, Academic Press, 1983.
13. Gorman, G. E. (ed.) : Collection management. London, Library Association, 2001.

14. Gorman, G. E. & Ship, S. J. (eds) : Preservation management for libraries, archives and museums. London, Facet Publishing, 2006.
15. Handzic, Meliha & Zhou, Albert Z. : Knowledge management : an integrative approach. Oxford, Chandos Publishing, 2005.
16. Haravu, L. J. : Lectures on knowledge management : paradigms, challenges and opportunities. Bangalore, SRELS, 2002.
17. Hayness, Robert M. : Models for library management, decision making, planning. San Diego, Academic Press, 2001.
18. Hyde, James H. : Library collection management. New Delhi, Dominant Pub., 2003.
19. Jagannathan, N. (Ed.) : Outreach library services for distance learners. New Delhi, Viva Books, 2004.
20. Jain, A.K. & others (eds): Marketing of information products and services. Ahmedabad, Indian Institute of Management, 1995.
21. Jones, N. & Jordan, P. : Staff management in library and information work, 2nd ed.. Aldershot, Gower, 1987.
22. Jorden, Peter & Lloyd, Caroline : Staff management in library and information work. Hampshire, Ashgate, 2002.
23. Koontz, M. & O'Donnell, : Essentials of Management. New Delhi, Tata McGraw Hill, 1978.
24. Kraft, Donald and Boyce, Bert R. : Operations research for libraries and information agencies. San Diego, Academic Press, 1991.
25. Lancaster, F. W. & Cleverdon, C. W. (eds.) : Evaluation and scientific management of libraries and information centers. Leyden, Noordhoff, 1977.
26. McKee, B. : Planning library service. London, Clive Bingley, 1989.
27. Mitchell, B. J. : Cost analysis of library functions : a total systems approach. Greenwich, Jai Press, 1978.
28. Osborne, L. N. & Nakamura, M. : Systems analysis for librarians and information professionals. Eaglewood, Libraries Unlimited, 2004.
29. Pearce, M. : Non- Standard collection management. Aldershot, Ashgate, 1992.

30. Raina, Roshan Lal and others: Library management : trends and opportunities. New Delhi, Excel Books, 2005.
31. Savard, R. (ed.): Education and research for marketing and quality management in libraries. Munchen, K. G. Saur, 2002.
32. Smith, Kelvin : Planning and implementing electronic records management : a practical guide. London, Facet Publishing, 2007.
33. Stuart, R. D. & Eastlick, J. T. : Library management, 2nd ed. Littleton, Libraries Unlimited, 1981.
34. Tough, Alistair & Moss, Michael (eds): Record keeping in a hybrid environment : managing the creation, use, preservation and disposal of unpublished information objects in context. Oxford, Chandos Publishing, 2006.
35. Trumpeter, M. C. & Rounds, R. S. : Basic budgeting practices for librarians, Chicago, American Library Association, 1985.
36. Underwood, Peter : Managing change in libraries. London, Clive Bingley, 1995.
37. Weihrich, H & Koontz, H. : Management: a global perspective. New York, McGraw Hill, 1993.
38. Yorke, D.A. : Marketing library services. London, Library Association, 1977.

Paper III – Organisation of Information

100 Marks

3 Hours

No. of teaching hours /unit

Objectives:

1. To appraise methods used in organisation of information.
2. To review the methods of physical organisation of carriers of information.
3. To understand the criteria used for evaluating information retrieval systems.

Syllabus:

1. Organising Information : Objectives, tools, techniques, organisation of library material – reports, standards, patents, grey literature, maps, audio-visual material, digital material. (6hrs)
2. Standards for Bibliographic Records : Bibliographic description of print and non-print material, standards for bibliographic records and exchange formats – ISBD, ARCR II, MARC, MARC21, UNIMARC, CCF, ISO – 2709, metadata, Dublin Core, metadata harvesting, XML, Z39.5. (8hrs)
3. Access to documents : Classification, subject cataloguing, subject indexing, citations, annotations, thesauri, ontology, taxonomy, subject gateways. (8 hrs)
4. Preservation : Preservation, conservation, restoration of print, non-print, electronic material, archiving of digital and non-digital material. (4hrs)
5. Information users and their needs : Categories of users, information needs, information models, information seeking behaviour, user studies – methods, techniques and evaluation, needs of distance users and e-learners. (8hrs)
6. Information Retrieval : Search process, search strategies, Boolean expressions, online searching, formulations of search statement, information literacy. (6 hrs)
7. Evaluation of information storage and retrieval systems, relevance, recall, precision, impact factor and other criteria, information audit. (6 hrs)

8. Factors influencing organisation of information : Information architecture, information overload, information anxiety, information analysis. (8hrs)
(6 hrs)

Eight hours will be spent for preparing annotated bibliography / literature review on a given topic, preparing a database, classroom assignments and seminars.

Select Reading List

Paper III : Organisation of Information

1. Aitchinson, Jean & others: Thesaurus construction and use : a practical manual. London, Aslib, 2000.
2. Alberico, R. & Mico, M.: Expert Systems for Reference & Information Retrieval. Westport, Meckler, 1990.
3. Batley, Sue : Information Architecture for Information Professionals, Oxford, Chandos, 2007.
4. Borgman, Christine L.: From Gutenberg to the global information infrastructure access to the information in the networked world. Cambridge, M.I.T., 2000.
5. Crawford, W. : MARC for library use : understanding the USMARC formats. Whiteplains N. Y., Knowledge Industry Publication, 1984.
6. Eisenberg, Michael B.& others : Information literacy : essential skills for the information age, 2nd rev. ed. Westport, Libraries Unlimited, 2004.
7. Foskett, A. C.: Subject approach to information, 6th ed. London, Library Association, 1982.
8. Gilchrist, A.: Thesaurus in retrieval, 2nd ed. London, Aslib, 1971.
9. Godwin, Peter & Parker, Jo (eds): Information literacy meets library 2.0. London, Facet Publishing, 2008.
10. Gorman, G. E. & Daniel, D. G. (eds): Metadata applications and management. London, Facet Publication, 2004.

11. Hagler, R. : Bibliographic record and information technology, 2nd ed. Chicago, A. L.A., 1991.
12. Harter, Stephen: Online information retrieval concepts, principles and techniques. London, Academic Press, 1986.
13. Henezel, Susan: Information audit : a practical guide. Munchen, K.G. Saur, 2001.
14. Hopkinson, Alan & Gredley, E. : Exchanging bibliographic data on MARC and other international formats. London, Library Association, 1996.
15. Hunter, E. J. : Cataloguing, 2nd. Ed. , London Clive Bingley, 1983.
16. Hunter, E. J. : Computerised cataloguing. London, Clive Bingley, 1985.
17. John, Richard & others : Institutional repository. Oxford, Chandos Publication, 2006.
18. Kennedy, Mary Lee & Dysart, Jane (eds) : Intranets for info pros. New Delhi , Ess Ess Pub., 2008.
19. Knight, G. N. : Indexing, the art of. London, George Allen & Unwin, 1979.
20. Lancaster, F. W. : Information retrieval systems : characterization testing and evaluation. New York, John Wiley & Sons, 1979.
21. Large, Andrew and others : Information seeking in the online age : principles and practice. Munchen, K. G. Saur, 2001.
22. Lazinger, Susan S. : Digital preservation and metadata : history, theory, practice. Colorado, Libraries Unlimited, 2001.
23. Lee, Stuart D. : Building an electronic resource collection: a practical guide. London, Library Association, 2002.
24. Marcella, R. & Newton, R. : New manual of classification. Aldershot, Gower, 1994.
25. Markless, S. and Streatfield, D. : Evaluating the impact of your library. London, Facet Publishing, 2006.
26. Martin, A. and others : Information and IT literacy in the 21st century. London, Facet Publishing, 2003.

27. Mellwaine, I. C. : Standards for international exchange of bibliographic information. London, Library Association, 1991
28. Mukhopadhyay, Ashoknath : Guide to MARC 21 for cataloguing of books & serials. New Delhi , Viva Books Private Ltd., 2007.
29. Neelmeghan, A. : S.R. Rangnathan's Postulates & Normative Principles – Applications in Specialised databases design, Indexing & retrieval. Banagalore, SRELS, 1997.
30. Reynolds, D. : Library automation : issues and applications. New York R. R. Bowker, 1985.
31. Sorgel, Dagobert : Organising information : principles of database and retrieval systems. Orlando, Academic Press, 1985.
32. UNESCO : Consolidation of information : a handbook of evaluation, restructuring, repackaging of scientific and technical information. Paris, 1981.

Objectives :

1. To introduce the elements of Information and Communication Technology.
2. To develop skills for applying ICT. in libraries.
3. To study new developments in ICT

Syllabus :

1. Information Technology in libraries: Components of information technology, impact of information technology on libraries, IT based library and information services. (4hrs)
2. Database : Concepts, components and use, database management tools, DBMS – SQL, MySQL, Oracle and information retrieval system, database design – bibliographic and non-bibliographic databases, library software – WINISIS and other library software, open source software. (8hrs)
3. Data Communication Systems : Introduction, band-width and channel capacity, Wifi, PDA, blue tooth, smart phone, teleconferencing, ipod, RFID, data security systems. (6hrs)
4. Internet : basic features and tools
 - i) Connectivity – Dial up, lease lines, microwave, ISDN, cable modem
 - ii) Digital subscriber lines
 - iii) e-mail, SMTP, wireless, POP3.
 - iv) Protocols – Telnet, FTP, HTTP.
 - v) Web browsers – Netscape Navigator, Internet Explorer, Mozilla, Google Chrome
 - vi) Web servers – Apache, Internet Information Server.
 - vii) Server side scripting language – PHP/ASP
 - viii) Database Connectivity – ODBC, IDBC.
 - ix) Search engines – Metasearch engines and their evaluation.
 - x) Web design – SGML, HTML, DHTML, XML
 - xi) Internet security – Firewalls, proxy servers. (10hrs)
5. Digital Library : Concept and evolution
 - i) Digital libraries of the world – Gutenberg, Alexandria, World Digital Library.
 - ii) Image formats: JPEG, GIF/BMP

- iii) Audio formats : WAV, MIDI, MP3 MPEG, AV1, Quick Time
 - iv) Storage media formats: ISO 9660, DVD
 - v) Software-Digital library software, OCR and image editing software.
 - vi) Input capture devices : Scanners, scanning and digitisation process, digital and movie cameras.
 - vii) Data warehousing, data mining. (10hrs)
6. Planning for Information and Communication Technology in Libraries. assessment of needs, priority settings, hardware selection, software evaluation and selection, website and portal development. (6hrs)
- 7 Design and implementation of Information and Communication Technology in Libraries : restructuring of physical set up, ergonomics, staff training, financial aspects, maintenance aspects, web content management, data migration. (6 hrs)
8. Current developments : Subject gateways, listserv, push and pull technology, e-learning, web 2.0 - social tagging, folksonomy, RSS feed, you tube, blogs, library 2.0, data mapping. (8hrs)

Select Reading List

Paper IV : Information and Communication Technology in Libraries

1. Allan, B. : E-Learning and teaching in library and information services. London, Facet Pub., 2002.
2. Andrews, Judith (Ed.) : Digital libraries : policy, planning and practice. Aldershot, Ashgate, 2004.
3. Arms, William : Digital libraries. Cambridge, MIT, 2001.
4. Baker, David : Strategic change management in public sector organizations. Oxford, Chandos, 2007.
5. Batley, Sue : Information architecture for information professionals. Oxford, Chandos, 2007.
6. Berry, M. J. A. and Linoff, G. : Mastering data mining. New York, John Wiley, 2000.

7. Block, Marylaine (Ed.) : Net effects : how librarians can manage the unintended consequences of the internet. New Delhi, Ess Ess, 2008.
8. Collier, M. : Telecommunication in information management and transfer. Aldershot, Gower, 1988.
9. Cox, Andrew (Ed.) : Portals : people, processes and technology. London, Facet, 2006.
10. David, Nicholas, Harris, Kevin & Erbach, Gertrud : Online searching : its impact on information users. London, Mansell, 1987.
11. Griffiths, Peter : Managing your internet and intranet services : the information professional's guide to strategy, 2nd Ed. London, Facet, 2004.
12. Deegan, Marilyn & Tanner, Simon : Digital futures, arranging for the information age. London, LA, 2001.
13. Eden, Bradford Lee (Ed.) : Innovative redesign and reorganization of library technical services. Westport, Libraries Unlimited, 2004.
14. Gopinath, M.A. & Rama Reddy (Eds.) : Information access through networks. Hyderabad, Booklinks, 1996.
15. Gorman, G.E. : Digital factor in library & information services. London, Facet, 2002.
16. Gorman, G.E. (Ed.) : Information services in an electronic environment. London, LA, 2002.
17. Grosch, Audrie : Libraries and information technology networks. New York, Marcel Dekker, 1995.
18. Kaul, H.K. : Library networks : an Indian experience. New Delhi, Virgo, 1992.
19. Koenig, Michael E.D. and Srikantaiah, T.Kanti (Eds.) : Knowledge management lessons learned : what works and what doesn't. New Delhi, Ess Ess, 2008.
20. Korfhage, Robert R. : Information storage & retrieval. New York, Wiley, 2006.
21. Malwad, N.M. and others. : Digital libraries. New Delhi, New Age, 1996.
22. Morris, A. : The Application of expert systems in libraries & information centres. London, Bowker-Saur, 1992.

23. Prasad, A.R.D. : Multimedia and internet technologies. Bangalore, DRTC, 2001.
24. Rao, I.K.R. : Library automation. New Delhi, Wiley Eastern, 1990.
25. Reed, D. & Thomas, P. : Essential HTML. London, Springer, 1998.
26. Rikowski, Ruth (Ed.) : Knowledge management : social, cultural and theoretical perspectives. Oxford, Chandos, 2007.
27. Rowley, J. The Electronic library. London, Library Association, 1998.
28. Sturges, Paul : Public internet access in libraries & information services. London, Facet, 2002.
29. Teague, S. J. : Microforms, video and electronic media librarianship. London, Butterworths, 1985.
30. Tennant, R. (Ed.) XML in libraries. New York, Neal – Schuman, 2002.
31. White, Martin : Content management handbook. London, Facet, 2005.

Objectives:

1. To understand the value of research in Library and information Science
2. To understand the process of research in Library and Information Science.

Syllabus:

1. Research Process and elements : Definition and meaning of research, characteristics of scientific research, types of research – pure, applied, action, qualitative and quantitative approaches to research. (8hrs)
2. Research Methods: Spiral of research, Scientific, historical, experimental, descriptive methods, survey, use and user study, case study, content analysis, operations research, evidence based librarianship. (6hrs)
3. Research Design : Problem identification, selection of suitable approach and method, steps in research, formulation of hypotheses, variables – dependent and independent. (6 hrs)
4. Data Collection: Sources – individuals, documentary and non-documentary sources, instruments – questionnaire, interview, observation, field visit. (8 hrs)
5. Data Analysis :
 - i) Descriptive statistics – Measures of central tendency, mean, mode, median, tabulation and generalization, measures of dispersion, variance, standard deviation, graphical presentation.
 - ii) Inferential statistics – z,t test, correlation ,sampling , need for sampling, types of samples, regression – linear and non-linear, chi square test ANOVA, sociometry, statistical packages, (8hrs)
6. Bibliometrics: Concept, method, application
 - i) Laws of bibliometrics – Bradford, Zipf, Lotka, analysis of bibliometric data, quantitative content analysis, citation analysis, co-citation analysis.
 - ii) Librametry, informetrics, scientometrics, webometrics. (8hrs)
7. Research report writing : Structure, style, contents, style manuals – Chicago, MLA, APA, e-citations. (4hrs)

8. Current trends in Library and Information Science research, criteria for research evaluation, impact factor, peer reviewing, research ethics, plagiarism. (4 hrs)

Eight hours will be spent for preparing annotated bibliography / literature review on a given topic, preparing a database, classroom assignments and seminars.

Select Reading List

Paper V : Research Methodology

1. Bell, Judith : Doing your research : a guide for first time researcher in education and social science. Buckingham, Open University Press, 1997.
2. Blaxter, Loraine & others : How to research, Buckingham, Open University Press, 1997.
3. Bundy, M.L. & others (eds.) : Reader in research methods for librarianship. Washington, NCR Microcard ED., 1970.
4. Busha, Charles H. & Harter, Stephen P. : Research methods in librarianship : Techniques and interpretations. New York, Academic Press, 1980.
5. Devarajan, G. : Applied research in library and information science. New Delhi, Ess Ess, 2005.
6. Egghe, L. & Neelameghan, A. (ed.) : Lectures on informatics and scientometrics. Bangalore, SRELS, 2000.
7. Egghe, L. & Rousseau, R. : Introduction to informatics: quantitative methods in library, documentation and information science. Amsterdam, Elsevier Science, 1990.
8. Finte, a. : Conducting research : from paper to the internet. London, Sage, 1998.
9. Ghosh, B. N. : Scientific method and social research. New Delhi, Sterling Publishers, 1987.
10. Goldhor, Hernert : Introduction to scientific research in librarianship. Urbana, University of Illinois. Graduate School of Library Science, 1972.
11. Goswami, P. R. : Statistical information system and libraries. New Delhi, Anmol Pub., 1996.

10. Hafner, Arthur W. : Descriptive statistical techniques for libraries. Chicago, A.L.A., 1989.
11. Lancaster, F. W. : Bibliometric methods in assessing productivity and impact of research. Bangalore, SRELS, 1991.
12. Lastrucci, C. L. : The scientific approach: basic principles of scientific method. Cambridge, M.I.T., 1967.
13. Matyn, John & Lancaster, F. W. : Investigative methods in library and information science. Arlington, Information Resources Press, 1981.
14. Moore, Nick : How to do research : a practical guide to designing and managing research projects. 3rd ed. London, Facet publishing, 2006.
15. Pichard, Alison Jane : Research methods in information . London, Facet Publishing, 2007.
16. Powell, Ronald R. : Basic research methods for librarians, 2nd ed. Norwood, Ablex Pub., 1994.
17. Ravichandra Rao, I. K. : Quantitative methods for library and information Science. New Delhi, Wiley Eastern, 1983.
18. Ravichandra Rao, I. K. (ed.) : Informatics – 91. Bangalore, SRELS, 1992.
19. Sehgal, R. L. : Applied statistics for library science research, Vol I and II. New Delhi, Ess. Ess, 1998.
20. Srikantaiah, T. and Hoffman, H. H. Introduction to quantitative research methods for librarians, 2nd Rev. ed., California, Headway Pub., 1978.
21. Walliman, Nicholas : Your research project : a step by step guide for the first-time researcher. New Delhi, Vistaar Pub., 2005.

Recommended Websites (MLISc.)

1. ALA
www.ala.org
2. ARIADNE
www.ariadne.ac.uk
3. D – Lib Magazine
www.dlib.org
4. Directory of Open Access Journals
www.doaj.org
5. DLIST
www.dlist.sir.arizona.edu/
6. Dublin Core Metadata Initiative
<http://dublincore.org>
7. Emerald Publisher
www.emeraldinsight.com
8. First Monday
www.firstmonday.com
9. HowStuffWorks – Learn how everything Works
www.howstuffworks.com
10. Infolibrarian
www.infolibraian.org
11. International Federation of Library Associations
www.ifla.org
12. Librarian's Index to Internet
www.lii.org
13. Librarians World
www.librarianworld.com
14. Library and Information Science Search Engines
www.liszen.com
15. Morton Grove Public Library's Webrary
www.webrary.org

16. National Knowledge Commission
www.knowledgecommission.gov.in
17. Online Computer Library Centre
www.oclc.org
18. Open Archives Initiative – Protocol for Metadata Harvesting
www.openarchives.org
19. Open J-Gate
www.openjgate.org
20. Project Gutenberg
www.gutenberg.org
21. PubMed service of the US National Library of Medicine
www.ncbi.nlm.nih.gov/pubmed/
22. Researching Librarian
www.researchinglibrarian.com
23. Special Library Association
www.sla.org
24. SourceForge.net : the source code repository
<http://sourceforge.net>
25. University of Mumbai
www.mu.ac.in
26. World Wide Web Consortium
www.w3c.org

Master of Library and Information Science

Group B - Practicals

Total 100 marks

Practicals will be conducted on the following during one academic year.

	Marks	Duration of Practical exam.
1. CD-ROM searching (using LISA, National Geographic, Encyclopedia, Britannica, ERIC)	10	30 Minutes
2. Advanced classification (5 items to be classified for the examination)	15	60 Minutes
3. Thesaurus construction using journal article	15	60 minutes
4. MS Access (structure creation and query formulation on a given database)	20	60 minutes
5. Creation of a web page (on a given matter as per the specified instructions for formatting)	20	60 minutes
6. Creation of a non-bibliographic database using WINISIS consisting of minimum 20 entries to be submitted to the Department of Library and Information Science, University of Mumbai.	20	60 minutes

Total 100 marks

The practical examination will be centrally conducted at the Department of Library and Information Science, University of Mumbai, and will be assessed and evaluated by the examiners comprising of one internal and one external examiner appointed from amongst the panel of examiners recommended by the Ad-hoc Board of Studies in Library and Information science and appointed by the university.

Students will have to bring journals of their year's class work at the time of practical examination, failing which they will not be allowed to appear for the practical examination.

Group C - Project report, presentation, viva-voce and term paper

Total 200 marks

i) Project Report (written work)

100 Marks

The topic of the Project Report will be submitted along with a synopsis in duplicate, not exceeding 1000 words, for approval by the Departmental Committee comprising of following members:-

1. Chairman – Ad-hoc Board of Studies in Library and Information Science
2. Head – Department of Library and Information Science, University of Mumbai.
3. Adjunct/visiting faculty member

Each student will work under the guidance of a recognized university teacher for his/her project report and shall submit TWO COPIES of the same in print and CD-ROM form in A4 size word format, at least TWO MONTHS prior to date of commencement of the theory examination, to the Department of Library & Information Science, University of Mumbai.

ii) Presentation of Project Report

40 Marks

The presentation of Project Report by each student will be centrally organised by the Department of Library & Information Science, University of Mumbai, on a predetermined day.

iii) Viva-voce

40 Marks

On presentation of project report, each student will be orally and centrally examined with an objective of testing the candidate's knowledge of Library and Information Science in general and on the topic of his project.

iv) Term Paper

20 Marks

Total 200 Marks

Each candidate will prepare and submit two copies of a term paper on a topic related to Library and Information Science, latest by 30th November each year to the Department of Library and Information Science, University of Mumbai. The same should be typed in A4 size, word format, not exceeding 3000 words and should include an abstract, up to 5 key words and full references following standard style manual.

The project report, its presentation, viva-voce and the term paper will be centrally assessed and evaluated by one internal and one external examiner from amongst the panel of examiners, recommended by the Ad-hoc Board of Studies in Library and Information Science to the university.