Session: 2025– 26

Part A - Introduction

Name of the Programme	**Master of Library & Information Science**
Semester	**4th Semester**
Name of the Course	**Research Methods and Statistical Techniques**
Course Code	**M24-LIS-401**
CourseType	CC-11
Level of the course	400-499
Pre-requisite for the course (if any)	

Course Learning Outcomes (CLO): After completing this Course, the Learner will be able to :

M24-LIS-401.1	Understand The basics of research and research methodology in terms of types, forms.
M24-LIS-401.2	To Formulate research questions including objectives and hypotheses.
M24-LIS-401.3	Data collection methods and analyzing through different statistical techniques
M24-LIS-401.4	The data representation through tabular and graphical form and the skill of telling the world about the research results through report

	Theory	**Practical**	**Total**
Credits	4	0	4
Teaching Hours per week	4	0	4
Internal Assessment Marks	30	0	30
End Term Exam Marks	70	0	70
Max. Marks	100	0	100
Examination Time	**3 hours**		

Part B –Contents of the Course

Instructions for Paper Setter: The Examiner will set **9** questions asking **2** Questions from each unit and one Compulsory Question by taking Course Learning Outcomes (CLOs) into consideration. The Compulsory Question (Question No. **1**) will consist at least **4** parts covering entire syllabus. The examinee will be required to attempt **5** Questions, selecting one question from each Unit and the compulsory question. All Questions will carry equal marks.

Unit	Topics	Contact Hours
I	**Unit-I: Research Basics** ▪ Meaning, Need and process ofResearch. ▪ Types of Research-Fundamental and Applied. ▪ Hypothesis: Definitions. Functions and Types ▪ Designing Research proposal. ▪ Literature Search-print, Non-print and Electronic Sources. ▪ Research Reporting: Types, Structure and Contents. ▪ Ethical aspects of research.	15
II	**Unit- II: Research Methods** ▪ Spiral of Scientific Method.(S.R.Ranganathan). ▪ Historical Method. ▪ Experimental Method. ▪ Descriptive Method. ▪ Survey Method and Case Study Method. ▪ Bibliometrics: Concept and Definition, Bibliometrics Laws: Bradford, Zipf. Lotka, Bibliographic Coupling and Citation Analysis, Webometrics, Impact factor	15
III	**Unit-III: Research Techniques and Tools** ▪ Questionnaire ▪ Interview ▪ Observation ▪ Sampling Techniques	15
IV	**Unit-IV :Descriptive Analysis and Interpretation** ▪ Descriptive Statistics -Measures ofcentral Tendency-Mean, Mode, Median. ▪ Chi- Square test. ▪ Introduction to SPSS statistical software. ▪ Tabulation. ▪ Graphical presentation ofdata: Bar, Pie, Line-graphs, Histograms	15

	▪ Sociometry.	
Total Contact Hours		**60**

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
Theory	**30**	**Theory**	**70**
● Class Participation	5	Written Examination	
● Seminar/presentation/assignment /quiz/class test etc.	10		
● Mid-Term Exam	15		

Part C – Learning Resources

Recommended Books/e-resources/LMS:

1.Alasuutari, P., Bickman, L. & Brannen, J. (Eds.) (2008). The SAGE Handbook of Social Research Methods. London: Sage Publication.

2. Atkinson, P & Delamont, S. (Ed.) (2011) Sage Qualitative Research Methods. (Vols. 1-4). New Delhi: Sage Publication.

3. Bedi, S., & Webb, J. (Eds.). (2020). Visual Research Methods: An Introduction for Library and Information Studies. Facet Publishing.

4. Berger, A. A. (2018). Media and communication research methods: An introduction to qualitative and quantitative approaches. Sage Publications.

5. Burton, D. & Bartlett, S. (2009). Key Issues for Education Researchers. California: Sage Publication

6.Connaway, L. S., & Radford, M. L. (2016). Research methods in library and information science. ABC-CLIO.

7.Cooper, H. M. (2006). Synthesizing research: A guide for literature reviews. Thousand Oaks, Calif: Sage.

8. Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods 22 approach. (4th ed.). California: Sage Publication

9. Fetterman, D. M. (2010). Ethnography: step-by-step (3rd Ed). (Applied social research methods series; v. 17). California: Sage Publication

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Session: 2025 – 26 Part A - Introduction			
Name of the Programme	**Master of Library & Information Science**		
Semester	**4th Semester**		
Name of the Course	**Information Storage and Retrieval**		
Course Code	**M24- LIS -402**		
Course Type	CC-12		
Level of the course	400-499		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO): After completing this Course, the Learner will be able to:			
M24- LIS -402.1	The basic principles and practices of information documentation.		
M24- LIS -402.2	The organization, storage, retrieval and dissemination of information.		
M24- LIS -402.3	The structure of document surrogates, indexing languages;		
M24- LIS -402.4	The controlled vocabularies, thesauri, natural language systems, catalogues. And the information storage media, retrieval systems, evaluations with precision and recall theory.		
Credits	**Theory**	**Practical**	**Total**
	4	0	4
Teaching Hours per week	4	0	4
Internal Assessment Marks	30	0	30
End Term Exam Marks	70	0	70
Max. Marks	100	0	100
Examination Time	3 hours		
Part B –Contents of the Course			
Instructions for Paper Setter: The Examiner will set **9** questions asking **2** Questions from each unit and one Compulsory Question by taking Course Learning Outcomes (CLOs) into consideration. The Compulsory Question (Question No. **1**) will consist at least **4** parts covering entire syllabus. The			

examinee will be required to attempt 5 Questions, selecting one question from each Unit and the compulsory question. All Questions will carry equal marks.

Unit	Topics	Contact Hours
I	**Unit – I:Indexing Systems and Techniques** ▪ Assigned and Derived Indexing. Pre- Coordinate and Post-Coordinate indexing. Chain Indexing, PRECIS, POPSI. ▪ Keyword Indexing: KWIC, KWAC, KWOC. ▪ Concept of Automatic Indexing. ▪ Citation Indexing: Features of Scopus, Web of Science, Google Scholar.	15
II	**Unit-II: Vocabulary Control** ▪ Vocabulary Control: Need, Purpose, Functions, Types and Characteristics. ▪ Vocabulary Control Tools. ▪ Subject Headings: LCSH, SLSH and MeSH. ▪ Thesaurus: Features, Structure and Construction, ERIC, UNESCO Thesaurus.	15
III	**Unit-III: Information Searching and Media** • Search Methods and Search Strategy: Boolean Search, Proximity Search, Phrase Search, Truncation Search, etc. • Information Searching in Different Media: Print and Electronic. • Federated Search: Concept and Features.	15
IV	**Unit-IV:Information Retrieval System** ▪ Information Retrieval System (IRS): Concept, Definition, Types, Characteristics Components of IRS. ▪ Information Retrieval Models. ▪ Library Information Retrieval Systems. ▪ Evaluation of Information Retrieval Systems	15
Total Contact Hours		**60**

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
Theory	**30**	**Theory**	**70**
▪ Class Participation	5	Written Examination	
▪ Seminar/presentation/assignment/quiz/clas	10		

s test etc.		
▪ Mid-Term Exam	15	

Part C – Learning Resources

Recommended Books/e-resources/LMS:

1.Atchison (Jean) and Gilchrist (Alan). Thesaurus Construction: A Practical Manual. London: ASLIB. 1972.

2. Chowdhary (GG). Introduction to Modern Information Retrieval. 2nd Ed. London: Facet Publishing, 2003. Gopinath (MA). Construction of Depth Version of Classification: A Manual. New Delhi. Wiley Eastern Limited, 1986.

3. Harter (Stephen P.). Online Information Retrieval: Concept, Principles and Techniques, Orlando, Academic Press, 1978.

4.Hepas (ITS). Information Retrieval: Computational and Theoretical Aspects. New York, Academic Press. 1978.

5. Houghton (Bernard) and Convey (John). Online Information Retrieval Systems: An Introductory Manual to Principles and Practices. 2nd Ed. London Clive Bingley, 1984.

6. Houghton (Bernad) Ed. Computer Based Information Retrieval Systems. London, Clive Bingley, 1968.

7. Lancaster (F Wilfrid). Information Retrieval Systems: Characteristics, Testing and Evaluation. 2nd Ed. New York: Wiley, 1979.

8. Ranganathan (S R). Prolegomena to Library Classification V1, Bangalore, Sarda Ranganathan Endowment for Library Science, 1967. Page 14 of 21

9. Rowley (Jennifer E). Abstracting and Indexing. Aldorshot: Gower, 1997.

10. Salton (G) Automatic Information Organisation and Retrieval, 1968.

11. Vickery (B C). Techniques of Information Retrieval. London: Butterworths, 1970.

Session: 2025 – 26 Part A - Introduction			
Name of the Programme	**Master of Library & Information Science**		
Semester	**4thSemester**		
Name of the Course	**Library Operations**		
Course Code	**M24- LIS -404**		
CourseType	DEC-3		
Level of the course	400-499		
Pre-requisite for the course (Ifany)			
Course Learning Outcomes (CLO): After completing this Course, the Learner will be able to:			
M24- LIS -404.1	The students will know about the housekeeping operations of a library		
M24- LIS -404.2	The students will be able to acquire, process and circulate documents in a library		
M24- LIS -404.3	The students will be able to manage serials		
M24- LIS -404.4	The students can automate the library operations		
Credits	**Theory**	**Practical**	**Total**
Teaching Hours per week	4	0	4
Internal Assessment Marks	4	0	4
End Term Exam Marks	30	0	30
Max. Marks	70	0	70
Examination Time	100	0	100
	3 hours		

Part B –Contents of the Course

Instructions for Paper Setter: The Examiner will set **9** questions asking **2** Questions from each unit and one Compulsory Question by taking Course Learning Outcomes (CLOs) into consideration. The Compulsory Question (Question No. **1**) will consist at least **4** parts covering entire syllabus. The examinee will be required to attempt **5** Questions, selecting one question from each Unit and the

compulsory question. All Questions will carry equal marks.

Unit	Topics	Contact Hours
I	**Unit-I:Library operations basics:** • Library operations: meaning, need • Types of operations: acquisition, technical processing, circulations, maintenance &serial control • Acquisition and collection development: meaning, need, functions • Procedures in acquisition: selection, ordering, receiving, accessioning • Methods of acquisition • Collection development policies, problems • Automated acquisition system	15
II	**Unit-II: Technical Processing and Maintenance** • Technical processing: need, role and procedure • Classification and cataloguing of documents • Labelling, shelving and display • Automated cataloguing • Maintenance: weeding and stock verification • Conservation and preservation	15
III	**Unit-III: Circulation** • Circulation: concept need and functions • Membership: new and old, updating, deletion • Type (categories) of members and their privileges • Circulation system: charging and discharging systems • Automated circulation system • OPAC & Web-OPAC	15
IV	**Unit-IV: Serial Control** • Serials: concept, types & importance • Selection and procurement of periodicals • Automated serial control • E-journals subscription • Access management of e-journals	15
Total Contact Hours		60

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
Theory	**30**	**Theory**	**70**
● Class Participation	5	Written Examination	
● Seminar/presentation/assignment/quiz/class	10		

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test etc.		
● Mid-Term Exam	15	

Part C – Learning Resources

Recommended Books/e-resources/LMS:

1. Bryson Jo. (1996). Effective library and information management. Bombay: Jaico.
2. Chabhra, T N et. al. (2000). Management and organisation. New Delhi: Vikas.
3. Drucker Peter F. (2002). Management challenges for the 21st century. Oxford: Butterworth Heineman.
4. Evans, G., Intner, S.S. & Weihs, J. (2021). Introduction to technical services. Libraries Unlimited.
5. Evans, G. Edward &Layzell, Patricia. (2007). Management basics for information professionals, 2nd ed. London: Libraries Unlimited.
6. Johnson, Peggy. (2009). Fundamentals of collection development and management, 2nd ed. ALA
7. Smith, Judith Read, Mary Lea Ginn & Kallaus Norman, F. (2010). Records management. 7th ed. South-western, Division of Thomson Learning.
8. Stueart, Robert D &Moran ,Barbara B. (2007). Library and information centre management. 7th ed. London: Libraries Unlimited.

Session: 2025 – 26			
Part A - Introduction			
Name of the Programme	**Master of Library & Information Science**		
Semester	**4th Semester**		
Name of the Course	**Advanced ICT Application in LIS (Theory)**		
Course Code	**M24- LIS -405**		
Course Type	DEC-4		
Level of the course	400-499		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO): After completing this Course, the Learner will be able to:			
M24- LIS -405.1	the understanding about implementation of library automation software and in achieving library security with the use of latest ICTs technique;		
M24- LIS -405.2	the knowledge about database management, data ware housing, data mining and other artificial intelligence technologies..		
M24- LIS -405.3	the familiarise with the Internet connectivity, protocols and different search techniques		
M24- LIS -405.4	the use of communication and networking technologies;		
Credits	**Theory**	**Practical**	**Total**
	4	0	4
Teaching Hours per week	4	0	4
Internal Assessment Marks	30	0	30
End Term Exam Marks	70	0	70
Max. Marks	100	0	100
Examination Time	3 hours		
Part B –Contents of the Course			
Instructions for Paper Setter: The Examiner will set **9** questions asking **2** Questions from each unit and one Compulsory Question by taking Course Learning Outcomes (CLOs) into consideration. The Compulsory Question (Question No. **1**) will consist at least **4** parts covering entire syllabus. The examinee will be required to attempt **5** Questions, selecting one question			

from each Unit and the compulsory question. All Questions will carry equal marks.

Unit	Topics	Contact Hours
I	**Unit – I:Library Automation** • Planning, implementation and evaluation of library automation • Automation of in-house operations: acquisition, cataloguing, circulation, serials control system, OPAC and its features, library management • Library automation software: proprietary (LIBSYS), Open source (KOHA) • Library security technology: RFID, CCTV, • Mobile based Library Services and Tools	15
II	**Unit-II: INTERNET Basic Feature and Tools** • Genesis and Utility. • Internet connectivity: dialup, leased line, ISDN, wireless • Protocols: TCP/IP, HTTP, FTP • Web Browsers: Netscape Navigator, Internet Explorer • Services: World Wide Web (WWW), E-Mail, Search Engines, Remote Login (Telnet), • FTP, Bulletin Boards, Usenet, Social Networking Sites, Chatting and Instant Message.	15
III	**Unit-III:Data Communication Technology(Networking)** • Data communication: concept, definition • Web servers and Internet security • Use of social networking tools for library services: RSS, Podcasting, Blogs • Network Based Services: Teleconferencing, Tele-facsimile. • Library Networks in India: ADINET and CALIBNET.	15
IV	**Unit-IV:Artificial Intelligence** • Artificial intelligence: concept, definition and features • Expert systems: concept, definition and features • Data warehousing -Data mining	15
Total Contact Hours		**60**

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
Theory	**30**	**Theory**	**70**
▪ Class Participation	5	Written Examination	

▪ Seminar/presentation/assignment/quiz/class test etc.	10	
▪ Mid-Term Exam	15	

Part C – Learning Resources

Recommended Books/e-resources/LMS:

1. Abena A. (2017). Exploring the potential of RFID and mobile technology in your library. New York: Scitus Academics Llc.
2. Ani O. E, (Ed) (2021). Transforming library operations with ICT tools. Hershey, PA: IGI Global.
3. Balas, V. E. (2019). Internet of things and big data analytics for smart generation. Cham, Switzerland: Springer.
4. Banerjee, K., & Reese, T. (2019). Building digital libraries: A how-to-do-it- manual for libraries. Chicago: ALA.
5. Fernandez, P. D., & Tilton, K. (2018). Applying library values to emerging technology: Decision-making in the age of open access, maker spaces, and the ever-changing library. Chicago: Association of College and Research Libraries (ACRL).
6. FOLIO | Open Source Library Services Platform. website: https://www.folio.org/
7. Hahn, J. (2017). The Internet of Things: Mobile technology and location services in Libraries .Chicago: ALA .
8. Katipo Communications: Koha Library management
9. Liang, X., & Chen, Y. (2018). Libraries in Internet of Things (IoT) era. Library Hi Tech.doi:10.1108/LHT-11-2017-0233.
10. Caplan, P. (2013). Metadata fundamentals for all librarians. New Delhi: Indiana Pub. House.
11. Hillmann, D. I., Westbrooks, E. L., & American Library Association. (2004). Metadata in practice. Chicago: ALA.
12. Varnum, K. J. (2019). New top technologies every librarian needs to know. Chicago: ALA. Paper Code:

50

Session: 2025-26			
Part-A - Introduction			
Name of the Programme	**Employability& Entrepreneurship Skills Course**		
Semester	**4th Semester**		
Name of the Course	**Research Ethics**		
Course Code	**M24-LIS-**		
Course Type	**EEC**		
Level of the course	**400-499**		
Pre-requisite for the course (if any)	-		
Course Learning Outcomes (CLO) **After completing this course, the learner will be able to:**	CLO-1: To understand Philosophy and Ethics CLO-2: To know about Publication Ethics CLO-3: To know about Open Access Publishing CLO-4: To learn Databases and Research Metrics.		
Credits	Theory	Practical	Total
	2	0	2
Teaching Hours per week	2	0	2
Internal Assessment Marks	15	0	15
End Term Exam Marks	35	0	35
Max. Marks	50	0	50
Examination Time	3 hours		

Part B-Contents of the Course

Instructions for Paper- Setter: The examiner will set 7 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 3 parts covering entire syllabus. The examinee will be required to attempt 4 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks except compulsory question.

Unit	Topics	Contact Hours
I	**Unit-I:** Publication ethics: definition, introduction and importance	10

	Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, Violation of publication ethics, Predatory publishers and journals.	
II	**Unit-II:** Open access publications and initiatives, SHERPA/ROMEO Online resources to check publisher copyright and self-archiving policies, To identify predatory publications, Journal finder/ journal suggester tools	10
III	**Unit-III** Definition and Concept of Plagiarism Importance of Similarity detection software. Metrics: h-index, g index, i10 index,	10
Total Contact Hours		30

Suggested Evaluation Methods

Internal Assessment: 15		**End Term Examination: 35**	
▪ **Theory**	**15**	▪ **Theory**	**35**
▪ Class Participation:	4	Written Examination	
▪ Seminar/presentation/assignment/quiz/class test etc.:	4		
▪ Mid-Term Exam:	7		

Part C-Learning Resources

Recommended Books/e-resources/LMS:.

1. Muralidhar K et. al., Ethics in Science Education, Research and Governance, Indian National Science Academy, 2019

2. Huma Praveen and Nayeem Showkat, Research Ethics, e-PG Pathshala, 2017

3. Bird A, Philosophy of Science, Routledge, 2006

4. MacIntye, Alasdair, A Short History of Ethics, London, 1967

5. P. Chaddah, Ethics in Competitive Research : Do not get scooped; do not get plagiarized, ISBN: 978-9387480865