VIDYASAGAR UNIVERSITY
Midnapore-721102

Syllabus for Ph. D. Couse Work in Library and Information Science

[w. e. f. 2021-22 session]

Structure of Ph.D. Course Work Syllabus in Library and Information Science

Course Code	Course Name	Marks
LIS-111	Research Methodology and Research Publication Ethics (RPE) and Computer Application	50
LIS-112	Recent Developments in Library and Information Science	50
LIS-113	Research in Library and Information Science-Sources and Tools	50
LIS-114	Emerging Issues in Core Areas of Research	50

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Course Name: Research Methodology and Research Publication Ethics (RPE) and Computer Application

Course Code: LIS-111

Full marks: 50

(Theory)

SECTION-A

Basic concepts of Research Methodology **10 Marks**

- Definition of Research Methodology- Distinction between Method and Methodology- Different 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.

Quantitative Techniques **10 Marks**

- 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

References

1. Albert, J. & Rizzo, M. (2012). *R by example*. New York: Springer.

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2. *American Psychological Association. (2010). The publication manual of the American Psychological Association (6th ed.). Washington, DC: APA.*
3. Best, J.W. & Kahn, J.V. (2006). *Research in education.* 10th ed. Boston: Pearson.
4. Braun, W.J. & Murdoch, D.J. (2007). *A first course in statistical programming with R.* Cambridge, N.Y.: Cambridge University Press.
5. Busha, C. & Harter, S. (1980). *Research methods in librarianship: techniques and interpretations.* New York: Academic Press.
6. Bushaway, R. W. (2003). Managing Research. Maidenhead, England: Open University Press.
7. Connaway, L.S. & Powell, R. R. (2010). *Basic research methods for librarians*. (5th ed.). Santa Barbara, CA: Libraries Unlimited.
8. Gerson, S. J. & Gerson, S. M. (1992). *Technical writing: Process and product.* Englewood Cliff's: Prentice Hall.
9. Gorman, G.E. & Clayton, P. (2004). *Qualitative Research for the Information guide for practicing librarians and students*. Oxford, UK: Chandos Publishing.
10. Gun, A.M., Gupta, M.K. & Dasgupta, B. (2008). Fundamentals of Statistics. (8th rev. ed.). 2 vols. Kolkata: World Press, 2008.
11. Hafner, A.W. (1988). *Descriptive statistical techniques for librarians.* Chicago: American Library Association.
12. Huckin, T. N. & Olsen, L. A. (1991). *Technical writing and professional communication for non-native speakers of English.* (2nd ed.). New York: McGraw-Hill.
13. Khan, M. A. (2002). *Research methods in library and information science*. New Delhi: Cosmo Publications.
14. Kothari, C.R. (2004). *Research methodology: methods and techniques* (2nd rev. ed.). New Delhi : Wiley Eastern Publishers.
15. Krishan Kumar (1992). *Research methods in library and information science*. New Delhi: Vikas Publishing House.
16. Kuhn, T.S. (1996). *The structure of scientific revolutions*. (3rd ed.). Chicago: University of Chicago Press.
17. Lawal, I. O. (2009). *Library and information science research in the 21st century.* London: Library Association.
18. Modern Language Association of America. (2008). *MLA style manual and guide to scholarly publishing*. (3rd ed.). New York: MLA.
19. Moore, N. (2006). *How to do research* (3rd ed.). London: Facet Publishing.
20. Mustafi, C.K. (2012). *Operations research: Methods and practice.* New Delhi: New Age International Publisher.
21. Neelameghan, A. (1975). *Presentation of ideas in technical writing.* New Delhi: Vikas Publishing House.
22. Ohdedar, A.K. (1993). *Research methodology.* Calcutta: Bengal Library Association.
23. Pal, M.N., Chatterjee, A.K. & Mukherjee, S. K. (1991). *Introduction to work study* (3rd rev ed.). New Delhi: Oxford and IBH Publishing.
24. Ravichandra Rao, I.K. (1983). *Quantitative methods for library and information science.* New Delhi: Wiley Eastern.
25. Rubens, P. (2001). *Science and technical writing: A manual of style* (2nd ed.). New York: Routledge.
26. Sehgal, R.L. (1998). *Statistical techniques for librarians.* New Delhi: Ess Ess Publications.
27. Simpson, I. S. (1988). *Basic statistics for librarians* (3rd ed.). London: Library Association.
28. Simpson, I. S. (1990). *How to interpret statistical data: A guide for librarians and information scientists.* London: Library Association.
29. Slater, Margaret, (Ed.). (1990). *Research methods in library and information studies.* London: Library Association.

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30. Taha, H.A. (2014). *Operations research: An introduction* (9th ed.). New Delhi: Pearson Education India.
31. *University of Chicago. (2010). The Chicago manual of style. (16th ed.). Chicago: University of Chicago Press*

SECTION B

Research and Publication Ethics **20 Marks**

RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)

1. Introduction to philosophy: definition, nature and scope, concept, branches
2. Ethics: definition, moral philosophy, nature of moral judgements and reactions, different branches of ethics, research ethics.
3. Responsibilities of researchers to fellow researchers, respondents, the public and the academic community.

- **RPE 02: SCIENTIFIC CONDUCT (5 hrs.)**

1. Ethics with respect to science and research
2. Intellectual honesty and research integrity
3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data
6. Privacy, autonomy, confidentiality and anonymity
7. The funding and sponsorship of research.

- **RPE 03: PUBLICATION ETHICS (7 hrs.)**

1. Publication ethics: definition, introduction and importance
2. Best practices / standards setting initiatives and guidelines: COPE (Committee of Publication Ethics), WAME (World Association of Medical Editors), etc.
3. Conflicts of interest
4. Publication misconduct: definition, concept, problems that lead to unethical behaviorand vice versa, types
5. Violation of publication ethics, authorship and contributorship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals
8. The role of the researchers.

PRACTICE

RPE 04: OPEN ACCESS PUBLISHING (4 hrs.)

1. Open access publications and initiatives
2. SHERPA (Securing a Hybrid Environment for Research Preservation and Access) /RoMEO (Rights Metadata for Open Archiving) online resource to

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check publisher copyright & self-archivingpolicies

3. Software tool to identify predatory publications developed by SPPU (Sabitribai Phula Pune University)
4. Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, SpringerJournal Suggester etc.

- **RPE 05: PUBLICATION MISCONDUCT (4hrs.)**

A. Group Discussions (2 hrs.)

1. Subject specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad

B. Software tools (2 hrs.)

Use of plagiarism software like Turnitin, Urkund and other open-source software tools

- **RPE 06: DATABASES AND RESEARCH METRICS (7hrs.)**

A. Databases (4 hrs.)

1. Indexing databases
2. Citation databases: Web of Science, Scopus, etc.

B. Research Metrics (3 hrs.)

1. Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, CiteScore
2. Metrics: h-index, g index, ilO index, altmetrics

References

- Bird, A. (2006). *Philosophy of Science.* Routledge.
- MacIntyre, Alasdair (1967) *A Short History of Ethics.* London.
- P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865
- National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition.* National Academies Press.
- Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences,* 1-10. Retrieved from https://www.niehs.nih.gov/research/resources/bioethics/whatis /index.cfrn Beall, J. (2012). Predatory publishers are corrupting open access. Nature, 489(7415), 179-179. https://doi.org/10.1038/489179a
- Indian National Science Academy (INSA), Ethics in Science Education, Research and Govemance(2019) , ISBN:978-81-939482-l- 7. https://www.insaindia.res.in/pdf/Ethics Book.pdf
- Oliver Paul: *The Students Huide to Research Ethics*, Open University Press, McGrew Hill

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- H. Martyn and Anne Trainanou: *Ethics in Qualitative Research: Controversies and Contexts*, Sage, New Delhi.

SECTION-C

Basic knowledge of Computer Application **Marks 10**

1. MS Word
2. Power Point Presentation
3. Spread Sheet / Excel Sheet
4. Internet

Course Name: Recent Developments in Library and Information Science

Course Code: LIS-112

Full marks: 50

(Theory)

- 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 and profession

References:

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.

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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.

Course Name: Research in Library and Information Science-Sources and Tools

Course Code: LIS-113

Full marks: 50

(Theory)

- 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
- 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

References:

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/

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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.

Course Name: Emerging Issues in Core Areas of Research

Course Code: LIS-114

Full marks: 50

- AI-driven Information-Processing applications
- Data-Carpentry tools
- Bibliometrics Laws and Mathematical Foundations of Bibliometrics/ Scientometrics/ Informetrics
- Bibliometrics Tools and Techniques such as Sci2,VOSviewer, Bibexcel, Citespace, PoP, SITKIS, R-Studio etc.
- Reference Management Tools like Zotero, Mendeley etc.
- Various applications of OpenRefine
- Advanced Bibliometric Methods for Evaluation, Ranking and Indicator Mapping for Research

N.B. Researchers are supposed to submit the review of existing literatures in their own areas of research.

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