DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

University of Kerala

M.Phil. Programme in Library and Information Science

Syllabus

(Under Credit and Semester System w.e.f. 2016 Admissions)

Programme Objectives:

- To introduce the students to advanced areas of research in Library and Information Science

- To make the students competent in literature collection pertaining to his/her study area

- To make the student do independent field work and data collection

- To prepare the student for undertaking analysis with the help of sophisticated instruments

- To prepare the students to undertake serious research and train the students in better scientific communication.

Structure of the Programme

Semester No.	Course Code	Name of the Course	Number of credits
I	LIS -711	Research Methodology	4
	LIS -712	Informetrics	4
	LIS -713	Digital Libraries	4
I1	**LIS -721**	**Dissertation**	**20**
		TOTAL CREDITS	**32**

Semester   : I
Course Code : LIS -711
Course Title   : RESEARCH METHODOLOGY
Credits   : 4

AIM: To expose students to areas of creative thinking and critical reasoning which are relevant to his/her area of research and introduce the student to current research issues and processes. After completing this course the student is expected to be competent in literature and data collection, critical analysis of problems and communication of his/her observations and findings in a report.

OBJECTIVES: The course will consist of lectures and related activities that will help in developing good understanding of the method of research process and management. This should help in critical thinking, formulation of hypothesis, design of experiments and better scientific communication.

COURSE CONTENT

MODULE I: Research as a concept of developing knowledge: The spiral of scientific method, Nature and role of research in Library and Information Science. Trends in LIS research in India.

MODULE II: Types of research: Basic, applied evaluative, action, historical, descriptive, correlational, quasi-experimental and experimental. Research design, selection of research problem, preparation of research proposal, Sampling: different types and challenges of sampling.

MODULE III: Methods and tools of research and their application in LIS: Questionnaire, Opinionnaire, Interviews, Observation, Diary, Case study, Scaling techniques, Delphi, Brainstorming, Bibliometrics, Webometrics, Content analysis, Sociometric techniques, Projective techniques and Qualitative research methods.

MODULE IV: Data analysis and interpretation: inferential statistics, parametric test: testing statistical significance, t test, ANOVA, ACNOVA, Correlations and Non-parametric tests. SPSS.

MODULE V: Research Reporting: Style Manuals: – Chicago, APA and MLA, E-citation; Reference management software; Format of the research report, writing of report including presentation of quantitative data: Structure, style, contents and Evaluation of research report.

End – Semester Assessment: Three Hour written examination

REFERENCES
- Balasubramaniam, P. Research Methodology in Library Science. New Delhi: Deep & Deep Publications, 2011.
- Busha, C.H. & Harter, S.P. Research Methods in Librarianship: Techniques and Interpretations. New York: Academy Press, 1980.
- Good, C.V. & Scates, D.E. Methods of Research. New York, 1952.
- Goode, W.J. & Hatt, P.K. Methods in Social Research, 1952.

- Goswami, I. M. Research Methodology in Libray Science. Common Wealth Publishers, 1995.
- Gupta, S.P. Statistical Methods. New Delhi: Sultan Chand.
- Kothari, C.R. Research Methodology: Methods and Techniques. New Delhi: Wiley Eastern, 1990.
- Krishan Kumar. Research methods in library and information science. Rev.Ed. New Delhi: Har Anand Publications, 1999.
- Line, M.B. Library Surveys: An introduction to the use, planning, procedure and presentation. New York: Archon books, 1967.
- Mohanti, T.C. Research Methodology in Library Science. Alfa Publications, 2008.
- Powell, R. R. Basic research methods for librarians. New Jersey: Greenwood, 1985.

Semester   : I
Course Code : LIS -712
Course Title : INFORMETRICS
Credits   : 4

AIM: To explore the growth of literature and to get familiarity with various metric laws, and to identify the ageing and obsolescence rate of literature. After completing this course the student is expected to be competent in the field of Informetrics and able to conduct different metric studies.

OBJECTIVES: The course will consist of lectures and related activities that will help in developing good understanding of the methods of metrics. He/she get familiarity with various Bibliometrics/Informetrics indicators and knowledgeable to find out the individual productivity, institutional productivity at national, international and regional levels, document wise productivity etc.

COURSE CONTENT

MODULE I: Theoretical Bibliometrics / Informetrics: Bibliometric distributions and laws: – Zipf's, Lotka's, Bradfords and their relations. Brooks, Vickery, Leimkhler, Bookstein, Garfields, Law of Concentration, Price (Success – breeds – success phenomenon), other related Laws andInformetrics Models.

MODULE II: Bibliometric / Informetric applications: Evaluative Bibliometrics, Citation Analysis/Studies,Concept, Genesis, Meaning, Purpose, definition, Types: – Self citation, CitationIndexes: –History, Use, Purpose, Types: – SCI, SSCI, A&HCI. Products: – JCR, ISI Web of Knowledge. Ageing, Obsolescence, Bibligraphic coupling, Clustering, Co- citation, Immediacy index, H-index. Types/ Sources of information on Informetrics. Study on core books, core authors etc. Evaluation of journals and other literature. Word frequency measures, Co-word analysis and co-classification.

MODULE III: Literature growth studies: Growth in discipline or documents i.e. periodical over a periodof time. Mapping the growth of literature- fitting into mathematical models. Co-author matrics (Degree of collaboration, Collaboration indexes etc.) Data collection tools for Informetricsanalysis and Bibliometric Softwares.

MODULE IV: Current trends in Informetrics: Productivity and Impact: – individual, institutional, National, Regional etc. Measure of Science: – Science Policy, Laws of Scientific Productivity, ScienceIndicators, Mapping of disciplines – Science, techniques, problems and evaluation.

MODULE V: Metrics research in the Internet: Cybermetrics/Webometrics and its applications: – Web Pagecontent analysis, Web link structure analysis, Web usage analysis, Web technology analysis,Web Impact Factor and other measures- advantages. Citation studies, Blogometrics and Wikimetrics.

End – Semester Assessment: Three Hour written examination

REFERENCES

- Andrews, F.M. Scientific Productivity of the effectiveness of research Groups in Six Countries. Cambridge: Cambridge University Press, 1979.
- Aslib proceedings (1948). 1:102. Informetrics 91: selected papers. Third International Conference on Informetrics. Bangalore.ed.by I.K. Ravichandra Rao, Bangalore: Sarada Ranganathan Endowment for Library Science, 1992.
- Brookers, B.C. The growth, utility and obsolescence of scientific periodical literature. *Journal of Documentation*, 24, (1970). pp. 283-294.
- Brookers, B.C. Bradford's law and Bibliography of science. *Nature*, 224, (1969). pp. 953-956.
- Brookers, B.C. On the 80/20 Rule. *Scientometrics*, 10, (1986). pp. 55-68.
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- Garfield, E. Mapping of the World of Science. Philadelphia, USA, 1998.
- Gupta, B. M (Ed.). Bibliometrics, Scientometrics and Infometrics. New Delhi: Segment Books. 1996.
- Hertzel, D.H. Bibliometrics: History of the development of ideas in. In: Kent, Allen (Ed.) Encyclopedia of Library and Information Science. New York: Marcel Dekker, 1985.
- Hubert, J.J. General Bibliometrics Models. *Library Trends*, (1981). pp .65-81.
- Lancaster, F.W. Bibliometric Methods on assessing productivity and Impact of Research. *SRELS Journal of Information Management*.
- Lotka, A.J. Frequency distribution of scientific productivity. J Washington Academy of Science. 16(2), (1926). pp. 317-325.
- Nain, F. Evaluative Bibliometrics. Cherry Hill, N J: Computer Horizons Inc, 1976.
- Pice, Derek de Solla. Little Science, Big Science. New York: Columbia University Press, 1963.
- Potter, William Gray (ed.) 1981. Bibliometric issue. *Library Trends*.30.Workshop material on scientific Communication and Bibliometrics. New Delhi: National Information System for Scientific and technology, 1988.
- Price, Derek de Solla. Science since Babylon. New Haven: Yale University press, 1961.
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- Sengupta, I.N. Bibliometric research. Calcutta: SBA Publication, 1988. 366p.
- Shannon, C.E and Weaver, W. The mathematical theory of Communication. University of llinois, London, 1948.

- Smith, L.C. Citation Analysis. *Library Trends*. 30(1), (1981). pp. 83-106.
- Wilson, Conception, S. Informetrics. *Annual Review of Information Science && Technology*, 34, (1999). pp. 107-47.
- Zipf, G.K. Human behavior and principles of least effort. New York: Hafner Publishing, 1965.

Semester   : I
Course Code : LIS -713
Course Title : DIGITAL LIBRARIES
Credits   : 4

AIM: To impart knowledge in the areas of digital library and storage and retrieval of digital information.

OBJECTIVES: The course will consist of lectures and related activities that will help in developing good understanding about digital libraries, digitization process and various digital library softwares.

COURSE CONTENT

MODULE I: Digital Libraries – Introduction: Definition of Components and Characteristics, Evolution ofdigital libraries – important milestones. Digital information users, Digital Libraries andResources Sharing, Digital Libraries in India, Agencies and organizations responsible for the development of digital libraries, Digital Library conferences, Digital Library Projects:– National and International.

MODULE II: Collection of Digital Library: E-books, E-Journals, ETD (Electronic Theses and Dissertation), Conference Announcement Databases and Online Bookshops. Impact of E-Journals, Open Access Movement and Institutional Repositories (IR), Arxive, Electronic Document Design, Evaluation of Digital Libraries.

MODULE III: Information Retrieval and storage of information: Hyper books, CD ROM, Retrieval of information, Internet – Hyper books retrieval. Overview of digital library software: – Dspace and Greenstone.

MODULE IV: Digital Services: Databased services – Problems and Perspectives – Consortia – Portals –Web based User Education.

End – Semester Assessment: Three Hour written examination

REFERENCES

- Adam, N. et.al (Ed.). Digital libraries: Research and technology advances. Berlin: Springer, 1996.
- Bishop, A. P., Van House, N. A & Butterfield, B. P. (ed.) Digital library use: Social practice in design and evaluation. New Delhi: Ane Books, 2005.
- Lazinger, S. S. Digital preservation and metadata: history, theory and practice. Colorado, 2001.

- Marcum, D. B. & George, G. ed. Digital library development: the view from Kanazawa. Forward by Kakugyo S.Chiku. London: Libraries Unlimited, 2006.
- Nayak, A.K. & Chiranjeev, A. Digital and online libraries. New Delhi: Jenandada Prakashan, 2010.
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- Savita M. Digital library resources. New Delhi: Ess Ess Publications, 2005.
- Suraj, V.K. (Ed.). Multimedia information collection in digital libraries. New Delhi: Isha Books, 2005.

Semester : **Ⅱ**
Course Code : **LIS -721**
Course Title : **DISSERTATION**
Credits : **20**

AIM: The aim of the project is to develop skills in using research methods, techniques and tools.

OBJECTIVES: Students have to carry out research on a topic approved by the Departmental Council, under the guidance of a faculty member and prepare a dissertation. Appropriate size of the dissertation shall be 200-300 typed pages in A4 size paper. The students should carry out project seminar and also appear for a viva-voce.