महात्मा गाँधी केंद्रीय विश्वविद्यालय
MAHATMA GANDHI CENTRAL UNIVERSITY
(Established by an Act of Parliament)

Doctor of Philosophy in Library & Information Science Ph. D. (LIS)

Syllabus
COURSE WORK
With effect from the Academic Session: 2020-2021

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

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MAHATMA GANDHI CENTRAL UNIVERSITY
(Established by an Act of Parliament)
Deen Dayal Upadhayay Campus, Motihari, District: East Champaran, Bihar – 845401

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

Ph. D. (Library & Information Science)

A minimum three years full-time research course divided into six semesters leading to the degree of Ph. D. (Library & Information Science).

A. Programme Details

Name of the Department: Department of Library and Information Science

School   : School of Computational Sciences, Information and Communication

Technology (SCSICT)

Subject   : Library and Information Science

Name of the Programme : Ph. D. (Library & Information Science).

Duration of the Programme : Minimum 3 Years divided into 6 Semesters and maximum as MGCU Ordinance.

B. Details of Course Work:

Course Code	Course Title	Core/Non-core/Open Elective	Credit Distribution				Duration	Internal Assessment Mark	Examination Marks	Total Marks
			L	T	P	Total Credit				
PHDLIS101/RPE	Research and Publication Ethics	Compulsory/Non-core	2	1	1	4	3 Hours	30	70	100
PHDLIS102	Research Methodology	Core	3	1	0	4	3 Hours	30	70	100
PHDLIS103	Elective Papers (Opt any one course from the following elective courses)									
PHDLIS103A	Foundations of Library and Information Science	Elective	3	1	0	4	3 Hours	30	70	100
PHDLIS103B	Knowledge Management	Elective	3	1	0	4	3 Hours	30	70	100
PHDLIS103C	Information and Communication Technology Applications in LIS	Elective	2	2	0	4	3 Hours	30	70	100
PHDLIS104	Library and Information Technology Management	Core	2	2	0	4	3 Hours	30	70	100
				Total Credits		16		Total Marks		400

First Semester

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE
Ph. D. (Library & Information Science)
FIRST SEMESTER
Course Work

Course Code	PHDLIS101/RPE
Course Title	Research and Publication Ethics
Type of Paper	Compulsory/ Non-Core
Credit	4
Teaching Hours	48

Objective- *To make the students aware of the research and publication ethics. This course hast to 6 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics, Hands-on-sessions are designed to identify research, misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics and plagiarism tools.*

Outcome- *After completion of course, students will be aware about philosophy of science and ethics, research integrity, publication ethics, Hands-on-sessions are designed to identify research, misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics and plagiarism tools*

SECTION (A): Research and Publication Ethics (Theory)   50 Marks

Unit I: Philosophy and Ethics
➤ Introduction to philosophy: definition, nature and scope, concept, branches

➤ Ethics: definition, moral philosophy, nature of moral judgements and reactions

Unit II: Scientific Conduct
➤ Ethics with respect to science and research

➤ Intellectual honesty and research integrity

➤ Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)

➤ Redundant publications: duplicate and overlapping publications, salami slicing

➤ Selective reporting and misrepresentation of data

Unit III: Publication Ethics
➤ Publication ethics: definition, introduction and importance

- ➤ Best practices / standards setting initiatives and guidelines: COPE, WAME, etc

- ➤ Conflicts of interest

- ➤ Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types

- ➤ Violation of publication ethics, authorship and contributorship

- ➤ Identification of publication misconduct, complaints and appeals

- ➤ Predatory publishers and journals

SECTION (B): Research and Publication Ethics (Practice)   50 Marks

Unit IV: Open Access Publishing

- ➤ Open access publications and initiatives

- ➤ SHERPA/RoMEO online resource to check publisher copyright & self archiving policies

- ➤ Software tool to identify predatory publications developed by SPPU

- ➤ Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

Unit V: Publication Misconduct

A. Group Discussion

- ➤ Subject specific ethical issues, FFP, authorship

- ➤ Conflict of interest

- ➤ Complaints and appeals: examples and fraud from India and abroad

B. Software Tools

- ➤ Use of plagiarism software like Turnitin, Urkund & other open source software tools.

Unit VI: Databases and Research Metrics

A. Databases

- ➤ Indexing databases

- ➤ Citation databases: Web of Science, Scopus, etc.

B. Research Metrices

- ➤ Impact factor of Journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score

➤ Metrices: h-index, g index, i10 index, altmetrics

RECOMMENDED BOOKS:

1. Bird, A. (2006), Philosophy of Science, Routledge.

2. MacIntyre, Alasdair (1967) A Short History of Ethics. London

3. P.Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865

4. National Academy of Science, 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.

5. Resnik, D.B. (2011), what is ethics in research & why is it important. National Institute of Environmental Health Science, 1-10. Retrived from https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm

6. Beall, J. (2012). Predatory publishers are corrupting open access. Nature, 489(7414), 179-179.

7. https://doi.org/10.1038/489179a

8. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance(2019),

9. ISBN:97881939482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf

Course Code	PHDLIS102
Course Title	Research Methodology
Type of Paper	Core
Credit	4
Teaching Hours	48

Objective- *To make the students aware of the research methodology concepts, definitions, and various techniques used for data analysis in research.*

Outcome- *After completion of course, students will be aware of implications of research and confident to take up research work.*

Unit I: Foundations of Research and Research Design
➤ Concept, Meaning, Need and Process of Research
➤ Types of Research: Fundamental and Applied
➤ Research Design, Types of Research Design
➤ Designing Research Proposal, Literature Search and Literature Review

Unit II: Research Methods
➤ Types of research: Qualitative and quantitative method of LIS research
➤ Scientific Method
➤ Historical Method, Survey and Case Study Method
➤ Experimental Method

Unit III: Data Analysis and Interpretation
➤ Data Collection Techniques: Questionnaire, Interview, Observation, Sampling and Delphi
➤ Presentation of Data-Tables, Charts and Graphs
➤ Interpretation of Data: Frequency Distribution, Measures of Central Tendency, Analysis of Time Series, Co-relation Studies and Analysis of Variance
➤ Use of Statistical Packages

Unit IV: Statistics and its Applications
➤ Descriptive Statistics – Measures of Central Tendency: & Dispersion, Correlations and linear regression, Chi-Square test, t-test, z-test, f-test.51 52
➤ Presentation of Data: Tabular, Graphic, Bar Diagram and Pie Chart, etc. Report Writing Statistical Packages – MS-Excel, SPSS, and Web-based Statistical Analysis Tools, etc.
➤ Plagiarism- Self plagiarism, anti-plagiarism guidelines and software

RECOMMENDED BOOKS:

1. Booth,W. C., Williams, J. M. and Colomb, G. G. (2003). The Craft of Research.University of Chicago Press.

2. Borgman, Christie L., ed. (1990). Scholarly Communication and Bibliometrics. Newbury Park, CA: Sage Publications, Inc.

3. Brady, John. (1997). The Craft of Interviewing. New York: Vintage.

4. Busha, Charles H. and Harter, Stephen P. (1980) Research Methods in Librarianship. New York: Academic Press.

5. Davis, GB (1997) Management Information System: Concept, Foundation Structure and Development. New York: McGraw Hill.

6. Gillham, Bill. (2000). The Research Interview. London: Continuum Press.

7. Gupta, B. M. (1996). Bibliometrics, Scientometrics and Infometrics. New Delhi: Segment Books.

8. Khanna, J K (2000) Documentation and Information Services, Systems and Techniques. Agra: YK Publishers.

9. Kish, Leslie. (1995). Survey Sampling. New York: Wiley.

10. Marshall, Catherine and Rossman, Gretchen B (2006).Designing Qualitative Research. Sage USA.

11. Nielsen, Jakob. (2000). Designing Web Usability. New Riders, USA.

12. Payne, Stanley. (1951). The Art of Asking Questions. Princeton University Press.

13. Raju, Nemani Govinda. (2009). Bibliometric Applications: Study Of Literature Use Patterns

14. Rea , Louis M and Parker , Richard A. (2005). Designing and Conducting Survey Research, San Francisco: Jossey-Bass.

15. Reinard , John C. (2006). Communication Research Statistics. Sage, USA.

16. Rowntree, Derek. (2003). Statistics without Tears: A Primer for Non-Mathematicians. London: Penguin.

17. Rubin, Herbert and Irene. (2004). Qualitative Interviewing: The Art of Hearing Data. Sage, USA.

18. Sudman, Seymour (1976). Applied Sampling. New York: Academic Press.

Course Code	PHDLIS 103A
Course Title	Foundation of Library and Information Sciences
Type of Paper	Elective
Credit	4
Teaching Hours	48

Objectives: *To acquaint the students with the basic concept of Foundations of Library and Information Science and how to deal with.*

Outcome: *After completion of the course, students will be able to understand the concept of Library, types of Library, Library Legislation and Policy and their application in information science.*

Unit I: Library and Information

➤ Role of Library and Information Centres in Modern Society; Growth & Development of Libraries in UK, USA and India

➤ Role of library in formal and informal education

➤ Five Laws of Library Science and their implications,

➤ Information: Characteristics, Nature, Value and Use of Information Conceptual difference between Data, Information and Knowledge

Unit II: Types of Libraries, Professional Associations and Organizations

➤ National Library of India, Public Libraries, Academic Libraries and Special Libraries

➤ Professional Associations: ILA, IASLIC, CILIP, ALA, Aslib

➤ National and International Organizations: RRRLF, UNESCO and IFLA

➤ Resource Sharing and Library and Information Profession: Resource sharing and library networking. Role of INFLIBNET.

Unit III: Library Legislation

➤ Library Legislation: Need, Purpose, Objectives and essential features

➤ Library legislation in India, Model Act: Madras, Andhra Pradesh Karnataka.

➤ Press and Registration Act, Delivery of Books (Public Libraries) Act

➤ Right to Information Act; IPR and Copyright

Unit IV: Library and Information Policy and Profession

➤ National Information Policy

- ➤ National Knowledge Commission
- ➤ Professional Ethics,
- ➤ Role of Library and Information Professionals in Digital Era

RECOMMENDED BOOKS:

1. BHATT (R K): History &Development of Libraries in India (1995), Mittal Publications, New Delhi.
2. CHAPMAN (EA) and LYNDEN (FC): Advances in Librarianship (2000), Academic Press, San Diego.
3. CHOWDHURY (GG), BURTON (PF) and McMENEMY(D): Librarianship: the complete introduction (2008), Neal-Schuman Publishers, New York.
4. FEATHER (J): The Information Society: a study of continuity and change (Ed. 5. 2008), Facet Publishing, London.
5. KHANNA (JK): Library and Society (1955), Research Publication, Kurukshetra.
6. KRISHAN KUMAR: Library Organization (1993), Vikas, New Delhi.
7. MARTIN (W J): The information Society (1988) Aslib, London.
8. PRASHER (R G): Information and its Communication (1991), Medallion Press, New Delhi.
9. RANGANATHAN (S R): Five laws of Library Science (Ed. 2,1989), Sarada Ranganathan Endowment for Library Science, Bangalore.
10. SINGH (S P): Special Libraries in the Electronic Environment (2005), Bookwell, New Delhi. Department of Library & Information Science, University of Delhi
11. VENKTAPPAIAH (V) and MADHUSUDHAN (M): Public Library Legislation in the new Millennium (2006), Bookwell, New Delhi.

Course Code	PHDLIS 103B
Course Title	Knowledge Management
Type of Paper	Elective
Credit	4
Teaching Hours	48

Objective- *To make the students aware of need and concepts of knowledge management in library.*

Outcome- *After completion of the course, students will be aware of the application of knowledge management in libraries & information centres.*

Unit I: Basics of Knowledge Management

➤ Concept of Knowledge
➤ Types of Knowledge: Explicit Knowledge and Implicit Knowledge
➤ Concept and Scope of Knowledge Management
➤ Knowledge Management Cycle

Unit II: Knowledge Management: Creation & Tools

➤ Knowledge Creation, Access, Transfer and Sharing
➤ Knowledge Tools
➤ Knowledge Networks
➤ Knowledge in Decision Making

Unit III: Pre-requisites of Knowledge Management

➤ Sharing of Expertise
➤ Knowledge Mapping
➤ Knowledge Worker

Unit IV: Trends and Challenges of Knowledge Management

➤ KM Initiatives in Indian Organization
➤ Software for Knowledge Management
➤ Pioneers in Knowledge Management
➤ Advances in Knowledge Management

RECOMMENDED BOOKS:

1. Anderson, Paul. (2012). Web 2.0 and beyond: principles and technologies. Boca Raton: CRC Press

2. Cappelli, Peter. (2010). The performance effects of it-enabled knowledge management practices. Cambridge, MA; National Bureau of Economic Research

3. Carl Frappaolo. (2006). Knowledge Management. Amazon.com

4. ChristeeGabour Atwood. (2009). Knowledge Management Basics (ASTD Training Basics Series.Amazon.com

5. Donald Hislop. (2009). Knowledge Management in organization.Amazon.com

6. Elias M. Awad. (2010). Knowledge Management: Updated 2nd Edition (2010 Second Edition). Amazon.com.

7. Easterby-Smith, Mark & Lyles, Marjorie A. (2011). Handbook of organizational learning and knowledge managemen. Chichester, West Sussex : Wiley,

8. Guilin, Guangxi Zhuangzu Zizhiqu. (2006). Advances in knowledge acquisition and management; Pacific Rim Knowledge Acquisition Workshop, PKAW. New York: Springer.

9. Irma Becerra-Fernandez and Rajiv Sabherwal. (2010). Knowledge Management System and Processes.Amazon.com

10. J. Paul Peter and James H. Donnelly. (2010). Marketing Management: Knowledge and Skills, 10th Edition. Amazon.com

11. Jay Liebowitz. (2012). Knowledge Management Handbook: Collaboration and Social Networking, Second Edition .Amazon.com

12. Kimiz Dalkir and Jay Liebowitz. (2011). Knowledge Management Theory & Practice.Amazon.com

Course Code	PHDLIS103C
Course Title	Information and Communication Technology Applications in LIS
Type of Paper	Elective
Credit	4
Teaching Hours	48

Objective- *To keep abreast the students with the automation in libraries, use of advanced version of technology in library operations, aware of the various consortia and consortia-based resources.*

Outcome- *After completion of the course, students will be skilled enough to work in an automated library environment.*

Unit I: Library Automation

➤ Purpose, Planning and Implementation

➤ Library Automation Software: Types and Features

➤ Open Source Library Software: Koha, Greenstone &D-Space

➤ Automation of Housekeeping Operations: Acquisition, Cataloguing, Circulation, Serials Control

Unit II: Automated Services

➤ Electronic Reference Services

➤ Bibliographic and Database Search Services

➤ CAS/SDI in Automated Environment

➤ Electronic Document Delivery Service, Library 2.0

Unit III: Library Networks and Consortia

➤ Objectives, scope and characteristics

➤ Major Library Networks: INFLIBNET, DELNET, OCLC

➤ Library Consortia: E-ShodhSindhu

Unit IV: Library Security Technology

➤ Barcode

➤ RFID

➤ CCTV, Biometrics, Smartcard

RECOMMENDED BOOKS:

1. Chidrupananda, Swami. (2006). Making Sense of Library Automation: A Hands on Guide. Kolkata: Meteor.
2. Forney, Mathew. (2003). Digital Reference Services. New Delhi: Dominant Publishing.
3. Gopal, Krishan. (2005). Modern Library Automation. New Delhi: Authors Press.
4. Grewal, Gagandeep. (2004). Handbook of Library Security. New Delhi: Dominant.
5. LaxmanRao, N.; Vishwa Mohan, V.; SudarshanRao, S. & Yadagiri Reddy, J. (2004). Library Consortia: Papers - National Seminar on Library Consortia, 22-23 March, 2004, Hyderabad. Indian Association of Teachers of Library & Information Science.
6. Pandey, S. K. (2000). Organisation of Library Automation. New Delhi: Anmol Publications.
7. Reddy, Satyanarayana. (2001). Automated Management of Library Collections. New Delhi: Ess Ess.
8. Siwatch, Ajit S. et al. (2006). Approaches to Modern Librarianship. Delhi: Sanjay.
9. Sujatha, G. (1999). Resource Sharing and Networking of University Libraries. New Delhi: Ess Ess.
10. Tripathi, Aditya et al. (eds.). (2010). Open Source Library Solutions. New Delhi :Ess Ess

Course Code	PHDLIS 104
Course Title	Library and Information Technology Management
Type of Paper	Core
Credit	4
Teaching Hours	48

Objective- *To keep abreast the scholar with the trends and developments in library and information management, library networks, consortia, digitization, web and social media applications in LIS.*

Outcome- *After completion of the course, students will be skilled enough to work in an automated library environment.*

Unit I: Trends and Developments in Library and Information Management

➢ Resource Management and Development: Human, Financial and E-Resources

➢ Resource Mobilization and Outsourcing

➢ Information Marketing

➢ Disaster Management

➢ Digital Information Resources Management

Unit II: Library Networks and Consortia

➢ Networks and Networking: Types, Hardware/ Software Requirements, Network

➢ protocols, Network security

➢ Data Networks and Library & Information Networks

➢ Networked Based Library and Information Services

➢ Library Consortia

➢ Management of Library and Information Networks and Consortia

Unit III: Digitization

➢ Digitization: Need, Methods and Equipment, Meta Data, Standards of Meta Data

➢ Digital Library: Components, Digital Library Initiatives in India, Open Access

➢ Initiative, Open Source Philosophy

Unit IV: Web and Social Media Applications in LIS

➤ Web 2.0, Blog, RSS Feed, Podcasting
➤ Social Networking
➤ Cloud Computing, Digital Reference Tools

RECOMMENDED BOOKS:

1. Abhinandan KS (1999) Marketing Information Products and Services. New Delhi: Tata McGraw Hills.

2. Allee, Verna (1997) The Knowledge Evolution: Expanding Organizational Intelligence. Boston MA: Butterworth Heinemann.

3. Andreasen, Alan and Kotler, Philip (2002) Strategic Marketing for Non-Profit Organisation. 6th ed., NJ: Prentice Hall.

4. Bayross, Ivan, N. (2003) Database Concepts and Systems. Navi Mumbai: Shroff.

5. Bonczek, Robert H. et al. (1981) Foundation of Decision Support System. New York: Academic Press.

6. Chen, Hsinchun (2001) Knowledge Management System: A Text Mining Perspective. Trcson,Arizona: Knowledge Computing Corporation.

7. Davis, Gardon B. ed., (1999) The Blackwell Encyclopaedic Dictionary of Management Information Systems. Oxford: Blackwell Publishers.

8. Davis, Gardon B. ed., (1999). The Blackwell Encyclopedic Dictionary of Management Information Systems. Oxford: Blackwell Publishers.

9. Gunasekara, Angappa (2003). Knowledge and Information Technology Management: Human and Social Perspectives. Hershey: Idea Group Publishing.

10. Haye-Roth, F. et al. (1983) Building Expert Systems. New York: Addison Wesley.

11. Haynes David. (2004) Meta Data for Information Management and Retrieval. London: Facet.

12. Kashyap, MM (1993) Database Management System: Design and Development. New Delhi: Sterling Publishers.

13. Khanna, J K (1996) Handbook of Information Systems and Services. New Delhi: Beacon Books.

14. Kotler, Philip and Armstrong, Gary (2005). Principles of Marketing 11th ed., NJ: Prentice Hall.

15. Lahiri, Abhijit (1986). National Information System for Science and Technology: Gupta, BM (et al) (eds) Handbook of Libraries, Archives and Information centers in India. New Delhi: Information Industry Publication. Vol 3.

16. Marchal, Benoit (2000) XML by EXAMPLE. New Delhi: Prentice Hall.

17. Martin, James (1976) Principles of Database Management System, New York: Prentice Hall.MM: West.

18. Mathew, JR (1980) Choosing and Automated Library System: A Planning Guide. Chicago: ALA.

19. Meadow, Charles T. Boyce, Bert R. and Kraft, Donald. H. (2000) Text Information Retrieval Systems. 2nd ed., San Diego, CA: Academic Press.

20. Natarajan, Ganesh (2000) Knowledge Management: Enabling Business Growth, New Delhi: Tata McGraw Hills.

21. Naveen Prakash (1984) Understanding Database Management. New York : Academic Press.

22. Neef, D. 1998- Rethinking Economics in the Knowledge base Economy. In: The Economic Impact of Knowledge. Boston: Butterworth Heinemann.

23. Powell, Thomas A (2000) The HTML Complete Reference. 2nd ed., New Delhi: Tata McGraw Hill.

24. Raman, A Thothathri (2003) Knowledge Management: A Resource Book. New Delhi Excel Books.

25. Seethrama, S. (1997). Information Consolidation and Repackaging, Frame Work, Methodology, Planning. New Delhi: Ess Ess Publication.

26. Sollumon, Michael R., Marshall, Greg W. and Stuart, Elnoro (2004) Marketing Real People, Real Choices, 4th ed., NJ: Prentice Hall. Trcson, Arizona: Knowledge Computing Corporation.

27. Weingand, Darlene E. (1987). Marketing Planning Library and Information Services. Littleton, Colorado: Library Unlimited.