# **SYLLABUS: 2019-2020**

# LIBRARY AND INFORMATION SCIENCE

M.Lib.I.Sc: FIRST SEMESTER

# DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE



Doctor Harisingh Gour Vishwavidyalaya (A Central University)

SAGAR (M.P.) 470003

(Formerly: University of Saugar)

# Master of Library and Information Science Course of Studies and Examination- 2019-2020

# **Scheme of Courses: Semester 1**

S.N.	TH/	<b>Course Code</b>	Course Title	L	T	P	С		Marks		
	PR							Int. Ass	Mid Sem	End Sem	Total
1	TH	LIS CC- 121	Knowledge Organisation and Information Processing: Advanced Classification Theory (KOIP/ACT)	3	1	0	4	20	20	60	100
2	TH	LIS CC- 122	Information Storage and Retrieval	3	1	0	4	20	20	60	100
3	TH	LIS CC-123	Information Systems and Programs	3	1	0	4	20	20	60	100
4	PR	LIS CC- 124	Knowledge Organisation and Information Processing: Advanced Cataloguing Practices (ACP)	0	0	4	4	20	20	60	100
5	TH	LIS CC- 125	Indexing Language and Bibliographic Description	3	0	0	3	20	20	60	100
6	TH	LIS CC- 126	Electronic Information Resources	3	0	0	3	20	20	60	100
		Total Cı	redits			22					
			Total								600

**Note**: Each course code is having maximum Marks of 100. The distribution of 100 marks for each course code consists of Mid Semester Examination of 20 marks, internal assessment of 20 marks, and End Semester Examination of 60 marks.

# **Knowledge Organisation and Information Processing: Advanced Classification Theory**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 121	<b>Knowledge Organisation and Information</b>	3	1	0	4
	Processing: Advanced Classification				
	Theory				
	[KOIP/ACT]				

Credits: 4 Teaching Hours: 60 (Each Unit is of 12 Hrs) Max. Marks (20+20+60) 100

### **Unit-1: Information and Knowledge**

- Information: Growth and development
- Knowledge: Structure, types and attributes

# **Unit- 2: Classificatory Principles and Subject Formation**

- Modes of formation of subjects
- Modes of thinking: Authority Centered, Tenacious, Speculative and Positivistic
- Normative Principles of W.C.B. Sayers, H.E. Bliss and S.R. Ranganathan

### **Unit- 3: Classification Isolates and Devices**

- Concept of isolates and categories: comparative study
- Different Devices : Alphabetical, Chronological, Geographical, Superimposition and Subject

### **Unit- 4: Notation and Comparative study of Classification Schemes**

- Notational Systems: Principles, capacities and telescoping of array
- Indicator Digits
- Comparative study of UDC and CC: Basic principles, subject representation, notational system and revision policy

# **Unit-5: Recent Trends in Library Classification**

- Contribution of CRG, DRTC, ISKO
- Design Methodology of a scheme of classification
- Web Classification, Problems of Classification in electronic documents

### **Suggested Reading**

Aggrawal, D.S. (1985) Lectures on Universe of Knowledge. New Delhi, Academic

Bose, H. UDC: Theory and Practice. New Delhi, Indian Bibliographic Centre.

Chakrabarti, B. (1994) Library Classification Theory. Calcutta, World Press.

Dhyani, P. Library Classification (Hindi). Agra, Y.K. Publisher

Dhyani, Pushpa (1998). Library Classification: Theory and Principles. New Delhi, Vishwprakashan,. 381p.

Husain, Shabahat (2004). Library Classification, Facets and Analyses. Ed.2. Delhi, B.R. Pub.

Khanna, J.K. (1985) Knowledge: Evolution, structure and research methodology. New Delhi, Ess Ess.

Khanna, J.K. Fundamentals of Library Organization. Agra, Y.K. Publisher.

Krishan Kumar (1991). Theory of Classification. Delhi, Vikas Publication.

Raju, A.A.N.(1985) Decimal, Universal Decimal and Colon Classification. New Delhi, Ajanta,

Ranganathan, S.R. (1967) Prolegomena to Library Classification. Ed. 3. Bangalore, SRELS.

Rowley, Jennifer E. (2008) Organizing Knowledge: An Introduction to Managing Access to Information. 4th revised ed, Ashgate Publishing, Ltd. 367p.

Sardana, J.L. and Sehgal, R.L. Universal Decimal Classification. New Delhi, IBC

Sehgal, R.L. An Introduction to UDC. Agra, Y.K. Publisher.

Sharma Pandey, S.K(1990) Universe of Knowledge and Research Methodology. Delhi, Ken Pub.

Sood, S.P.(2001). Universe of Subjects and Universe of Knowledge (Hindi). Agra, Y.K. Publisher.

# **Information Storage and Retrieval**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 122	Information Storage and Retrieval	3	1	0	4

Credits: 4 Teaching hours: 60 Hours (Each unit as indicated below) Max. Marks (20+20+60) 100

Unit 1 : Database [10 Hours]

- Databases: Definition, structure, characteristics
- Information storage and file organization.
- Information Consolidation and Repackaging

### **Unit-2: Indexing and Abstracting**

[12 Hours]

- Study of Citation indexing.
- Automatic indexing.
- Canons of Abstracting.
- Auto-Abstracting

### **Unit-3: Information Storage and Retrieval System**

[14 Hours]

- Definition, scope and components
- Evaluation of IR system.
- Important test result: Cranfield, MEDLARS, SMART.

### **Unit-4: Information Search and Retrieval**

[12 Hours]

- Web Browsers, Search Engines
- Search techniques: Online Searching techniques and retrieval.

### **Unit-5: Artificial Intelligence**

[12 Hours]

- Artificial intelligence: Concept, need and advantages
- Artificial Intelligence Application: Expert Systems and Natural Language Processing.

### **Suggested Reading**

Chakrabarti, A.R. and Chakrabarti, B. (1983). Indexing: Principles, Process and Products. Calcutta, World Press.

Choudhury, G.G. (2003). Introduction to modern information retrieval. Ed.2. Chennai, Allied Publishers.

Choudhury, G.G. (1993). Introduction to modern information retrieval system. Calcutta, IASLIC.

Guha, B. (1983). Documentation and Information: Services, techniques and systems. Ed 2. Calcutta, World Press.

Kashyap, M.M. (1993). Database System: Design and development. New Delhi, Indian Bibliographic Centre.

Khanna, J.K. Documentation and Information. Agra, Y.K. Publisher.

Lancaster, F.W. Indexing and Abstracting in theory and practice. Ed. 3. Chennai, Allied.

Prasher, R.G. (1989). Indexing and Indexing System. New Delhi, Medallion Press.

Rajan, T.N. (1981) Indexing systems: concepts, models and techniques. Calcutta, IASLIC.

Seetharama, S. Information Consolidation and Repackaging. Agra, Y.K. Publisher.

Sharma, Pandey S.K. Library Information Retrieval. Agra, Y.K. Publisher.

Sood, S.P. Documentation and Information Science. Agra, Y.K. Publisher.

Verma, A.K (1984). Trend in Subject Indexing. Delhi, Mittal.

# **Information Systems and Programs**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 123	<b>Information Systems and Programs</b>	3	1	0	4

Credits: 4 Teaching Hours: 60 Hours (Each Unit is of 24 Hrs) Max. Marks (20+20+60) 100

### **Unit –1: Information System**

- Information System: Basic concept, types, characteristics and components.
- Information Organisation as a System: Libraries, Documentation and Information Centres, Information analysis Centres, Referral Centres, Translation Centres, Reprographic Centres.

### Unit –2: Planning, Policy and Design of Information System

- National Information System Planning Design and Development
- Implementation and Evaluation
- National Information Policy

### **Unit-3: Information System at National and International Level**

- National Information Systems (Objectives, Functions, Services, Products): NISCAIR, DESIDOC, NASSDOC, NIC and BARC.
- International Information System: MEDLARS, AGRIS, INIS and NISIST

### **Unit- 4: Library and Information Network**

- Library Network-Concept, objectives, structure and functions.
- National Network: INFLIBNET, DELNET, NICNET.
- International Networks: INTERNET, OCLC, RLIN
- Library Consortia: e-ShodhSindhu, FORSA, CSIR E-Journals Consortium

### Unit- 5: Information Users and Information needs.

- Categories of Information user.
- Information needs: Definition and models.
- Information seeking behaviour.
- User studies: methods, techniques and evaluation.
- Role of information systems in national development.

### **Suggested Reading**

Barua, B.P. (1987) National Policy on Library and Information System and Services for India: Perspectives and Strategies. New Delhi, IBC.

Bose, Kaushik. (2001). Information networks in India: Problems and Prospects. New Delhi, IBC. Girija Kumar and Krishan Kumar.(1983). Philosophy of user education. New Delhi, Vikas

Publishing House.

Kashyap, M.M.(1997). Computer-based Library information systems: Designing techniques. New Delhi, Sterling Publications.

Kaul, H.K. (Ed.) (1999). Library and information networking. New Delhi, Virgo Publications.

Kawatra, P.S.(2000). Library and Information Systems in 21st century. New Delhi, Crest Publishing House.

Neelameghana, A. and Prasad, A.R.D.(1998). Information systems, networks and services in India: Developments and trends. (2Vol.). Delhi, Indian Bibliographic Centre.

Rao, Bhaskara.P.(2001). Information Network and Resource Sharing. New Delhi, IBC.

Sehgal, R.L.(1996). An Introduction to Library network. New Delhi, IBC.

# **Knowledge Organisation and Information Processing: Advanced Cataloguing Practice**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 124	Knowledge Organisation and Information	0	0	4	4
	<b>Processing: Advanced Cataloguing Practice</b>				
	[KOIP/ACP]				

Credits: 4 Teaching Hours: 120 (Each Unit is of 24 Hrs.) Max. Marks (20+20+60) 100

Practical cataloguing of the following non-book materials according to Anglo American Cataloguing Rules -2 (AACR-2, 1988) and Sears List of Subject Heading:

### Unit-1

- Manuscripts
- Cartographic materials

### Unit-2

- Sound recording
- Motion picture & video recording

### Unit-3

- Electronic Resources
- Three- Dimensional Artifacts and Realia

### Unit-4

• Serials According to AACR2

### Unit-5

• Serials According to CCC

### **Suggested Reading**

Choudhury, B.K. (1996). Cataloguing of Non-Book Materials: According to AACR-2, Revised, 1988. New Delhi, Reliance Publications.

Frost, Carolyn O and Arlene G. Taylor. (1983). Cataloging Non-Book Materials: Problems in theory and practice. Littleton, CO, Libraries Unlimited.

# **Indexing Language and Bibliographic Description**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 125	Indexing Language and Bibliographic	3	0	0	3
	Description				

Credits: 3 Teaching Hours: 45 (Each Unit is of 9 Hours) Max. Marks (20+20+60) 100

### **Unit-1 Subject Analysis and Representation**

- Subject Analysis: Definition and scope
- Problems of alphabetical subject representation

### **Unit-2 Indexing Language and Expert Contribution**

- Definition, characteristics and Types of Indexing language
- Contribution of C.A. Cutter, J. Kaiser, S.R. Ranganathan, J.E.L. Farradane and E. J. Coates

### **Unit-3 Controlled Vocabulary**

- Vocabulary Control: Definition and Scope
- Vocabulary Control: Tools and devices

### **Unit-4 Information Retrieval Thesaurus**

- Features of IR Thesaurus
- Thesaurus: Structure and Construction

### **Unit- 5 Bibliographic Description and Data exchange Protocols**

- Current trends in standardization in description and exchange: MARC, ISO2709, CCF and ISBD
- Bibliographic description: Z39.50 protocols, OAI-PMH

### **Suggested Reading**

Bajpai, S.K. (1997). Modern Information Retrieval. New Delhi, Indian Bibliographic Centre.

Chakrabarti, A.R. and Chakrabarti, B. (1983). Indexing: Principles, Process and Products. Calcutta, World Press.

Chan, Lois Mai.(1994). Cataloguing and Classification: An introduction. (*Ed.2*). New York, McGraw Hill.

Dhawan, K.S. (1997). On-line Cataloguing Systems. New Delhi, Indian Bibliographic Centre.

Fothergill, R. and Butchart, I. (1990) Non-book materials in Libraries: A practical guide. Ed.3. London, Clive Bingley.

Malavya, V.C. (2001). Multimedia Library and on-line Cataloguing. New Delhi, IBC.

Parmeswaram, M. (1989). AACRII and CCC(5): A comparative study. New Delhi, IBC.

Prasher, R.G. (1989). Indexing and Indexing System. Ludhiana, Medallion Press.

Rout, R.K. and Choudhury, B.K.(1997). Cataloguing of Non-book materials: A practical manual. New Delhi, Reliance Publishing House.

### **Electronic Information Resources**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 126	<b>Electronic Information Resources</b>	3	-	-	3

Credits: 3 Teaching Hours: 45 (Unit Hrs as indicated below) Max. Marks (20+20+60) 100

### **Unit -1: Electronic Information resources**

[07 Hours]

- Meaning, need and advantage over print media
- Types: E-Journals, e-Books, e-Theses, e-newspapers, Blogs, Wikis, Portals.
- Evaluation of e-resources

### **Unit -2: Electronic reference sources**

[09 Hours]

- E-databases: Free and subscribed databases; bibliographical and full text databases, Portals and Subject gateways
- Features and functionality of Dictionary.com, Encyclopedia Britannica, Wikipedia,

### **Unit -3: Digital Libraries**

[10 Hours]

- Virtual Libraries and Digital Libraries
- Features and functionality of ACM digital Library, IEEE / IEE Electronic Library Online (IEL), PLOS, National Digital Library (NDL)-India

Unit -4: Databases

[10 Hours]

• Features and functionality of Emerald, EBSCO, PsycINFO, Elsevier Science, PubMed, J-Gate, J-Store, SCOPUS, Web of Science, SciFinder Scholar, ERIC, INDMED: Index to Indian Biomedical Journals, Open Index Initiative: Indian Social Science literature and resources

### **Unit -5: Institutional e-Repositories and LIS e-resources**

[09 Hours]

- Institutional Repositories and Open Archives
- Electronic Resources in Library and Information Science
- Features and functionality of ROAR and DOAR, LISA, LISTA, etc.

### **Suggested Reading**

Chowdhury, G.G. and Chowdhury, Sudatta (2000). Searching CD-ROM and online Information sources. London, Library Association.

Cooper, M. D. (1996). Design of Library automation systems: File structures, data structures and tools. New York, John Wiley.

Dickson, G.W. and Desanctis, G.. Information technology and the future enterprise: New models for managers. New Jersey, Prentice Hall.

Ferris, Jeffrey A. (2000) Windows 2000: Development and desktop management. Indiana, New Riders.

Gallimore, A. (1997). Developing on IT strategy for your Library. London, Library Association.

Gopinath, M.A. (1984). Information sources and communication media (Annual Seminar). Bangalore, DRTC

Hodge, Gail. Cataloging and Indexing of Electronic Information Resources. ftp.rta.nato.int/public//PubFullText/RTO/EN/RTO...///EN-026-06.pdf

Lesk, Michael (1997). Practical digital Libraries: Books, bytes and bucks. San Francisco, Morgan Kaufmann.

SYLLABUS: 2019-2020

# LIBRARY AND INFORMATION SCIENCE

M.Lib.I.Sc: SECOND SEMESTER

# DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE



Doctor Harisingh Gour Vishwavidyalaya (A Central University)

SAGAR (M.P.) 470003

(Formerly: University of Saugar)

# Master of Library and Information Science Course of Studies and Examination- 2019-2020 Scheme of Courses: Semester 2

S.No	TH/PR	Course Code	Course Title	L	T	P	С		Marl		
								Int. Ass	Mid Sem	End Sem	Total
Core	Course										
1	TH	LIS CC- 221	Information and Communication Technology in LICs	3	1	0	4	20	20	60	100
2	TH	LIS CC- 222	Research Methodology	3	1	0	4	20	20	60	100
3	PR	LIS CC- 223	Knowledge Organisation and Information Processing: Advanced Practice in Classification (KOIP/APC)	0	0	4	4	20	20	60	100
4	TH	LIS CC- 224	Statistical Techniques and Bibliometrics	3	0	0	3	20	20	60	100
5	TH	LIS CC- 225	Digital Library	3	0	0	3	20	20	60	100
Elect	ives (An	y one)									
6	TH	LIS EC- 226	Organisation and Management of Public Library System	3	1	0	4	20	20	60	100
7	TH	LIS EC- 227	Organisation and Management of Academic Library System	3	1	0	4	20	20	60	100
8	TH	LIS EC- 228	Organisation and Management of Research and Technical Library System	3	1	0	4	20	20	60	100
9	TH	LIS EC- 229	Dissertation	0	-	4	4	Repo rt-60		Viva- 40	100
			Total	22							600
		ctive (Optional)		1 2	0	0	2	•	20	<b>60</b>	100
10	TH	LIS AU-2210	System Analysis and Design	3	0	0	3	20	20	60	100

**Note**: Each course code is having maximum Marks of 100. The distribution of 100 marks for each course code consists of internal assessment of 20 marks, Mid Semester Examination of 20 marks, and End Semester Examination of 60 marks excluding LIS CE-229 in which the distribution of marks consists of

- (i) Report = 60 Marks
- (ii) Viva-voce= 40 Marks

### INFORMATION AND COMMUNICATION TECHNOLOGY IN LICS

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 221	<b>Information and Communication</b>	3	1	0	4
	Technology in LICs				

Credits: 4 Teaching Hrs: 60 (Unit hrs as indicted below) Max. Marks (20+20+60) 100

### **Unit – 1: Information Communication Technology**

[10 Hours]

- Information Communication Technology: Definition, Concepts, need, scope and objectives
- Historical development of ICT in Libraries
- Facets of ICT

### **Unit – 2: ICT Applications**

[12 Hours]

- Library Websites, Web OPACs, Web Directories, Subject Gateways, Library Portals, Podcasts, RSS Feeds, Instant Messaging, Flicker, etc.
- Digital Preservation, Conservation and Archival Management Techniques, Problems and prospects

### **Unit – 3 : Electronic Publishing**

[12 Hours]

- Electronic Publishing and scholarly communication
- Products of e-publishing: e-books, e-journals, e-databases, Weblogs (blogs), Wikis, Institutional repositories.
- Benefits and Shortcomings of e-publishing

### Unit -4: Networking and Web Designing

[14 Hours]

- OSI Model
- Switching System
- Networking Components: gateways, bridges, routers, hubs
- Web 1.0, Web 2.0 and Web 3.0
- Web design: Introduction, Salient features of SGML, HTML, DHTML, XML

Unit – 5 : Internet [12 Hours]

- Internet: Genesis, growth and development, connectivity
- Internet resources and services
- Internet protocols and standards
- Internet Security

### **Suggested Reading**

Ahmed, Shamim. (1998). Computer in library management. New Delhi, I B C.

Dhawan, K.S. (1997). Multi-media library. New Delhi, I B C.

Dhiman, Anil K. (2002). Basics of Information Technology for Librarians and Information Scientists. 2 Vols. New Delhi, I B C.

Faruqi, Khalid K. (1997). Automation in libraries. New Delhi, IB C.

Kashyap, M.M. (1993). Database systems, design and development. New Delhi, IB C.

Kochar, R.S. (1998). Modern library and Information facilities. New Delhi, I B C.

Kochar, R.S. and Sudarshan, K.N. (1997). Library Automation: Issues and Principles. New Delhi, Indian Bibliographic Centre.

Mahapatra, M. and Ramesh, D.B. (Eds.). (2004). IT applications in libraries: A textbook for beginners. Bhubaneswar, Reproprint (P) Ltd.

Malavya, V.C. Electronic Libraries. New Delhi, I B C

Malavya, V.C. (1999). Library Automation. New Delhi, I B C.

Mudhol, Prasanna Kumar. (2002). Multimedia: It's application in Library and Information Science. New Delhi, I B C.

Panigrahi, R.M. Impact of Information Technology on Libraries. New Delhi, Indian Bibliographic Centre.

Raman, R. Computer application to library and Information Services. New Delhi, Indian Bibliographic Centre.

Sharma – Pandey, S.K. Fundamentals of Library Automation. New Delhi, Indian Bibliographic Centre.

Sharma Pandey, S.K. (1993) Library Computerization: Theory and Practice. New Delhi, Indian Bibliographic Centre.

Society for Information Science. (2002). Library Automation: Design, Principles and practice. New Delhi, SIS.

### RESEARCH METHODOLOGY

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 222	Research Methodology	3	1	0	4

Credits: 4 Teaching hours: 60 (Each Unit is of 12 Hrs) Max. Marks (20+20+60) 100

### **Unit – 1: Research: Introduction**

- Research: Meaning, Definition, Scope, Need and Purpose
- Types of Research: Basic, Applied, Individual and Collaborative research, Inter disciplinary

### **Unit-2: Methods of Research**

- Methods of Research: Descriptive, Comparative, Historical, Case study, Experimental and Scientific
- Spiral of Scientific method

### **Unit – 3: Research Planning**

- Research Problem: Identification and formulation, Types and Components
- Hypothesis: Concept, usefulness, quality, types and formulation
- Literature Survey and its use: Print, non-print, electronic sources
- Synopsis: Concept and essential components

### Unit – 4: Research Design and Techniques

- Research Design: Concept, need and purpose, Attributes, components
- Collection of Data: Sampling, Field Work, Questionnaire, Interview, Observation and Survey
- Sampling Techniques

### **Unit – 5: Research Report Writing**

- Presentation of data: Tables, Charts, Graphs
- Report writing: Structure, controls
- Guidelines for research reporting
- Style Manual: concept and utility

### **Suggested Reading**

Busha, Charlesh H. and Harter, Stephen P.(1980). Research methods in Librarianship: Techniques and Interpretation. Orlando, Academic Press.

Busha, Charlesh H.(1967). Research methods. <u>In</u> Encyclopedia of Library and Information Science. (Vol. 25, pp254-293.

Krishan Kumar.(1992). Research methods in Library & Information Science. New Delhi, Vikas.

Young, P.V. and Schmid, C.F. (1984). Scientific Social Surveys and Research. New Delhi, Prentice Hall of India.

Goode, William J. and Hatt, Paul K. (1986). Methods in Social Research. New Delhi, McGraw Hill. Kothari, C.R. (1990). Research Methodology: Methods and techniques. (*Ed.*2). New Delhi, Vishwa Prakashan.

Ghosh, B.N.(1982). Scientific methods and social research. New Delhi, Sterling Publication.

Ravichandra Rao, I.K.(1985). Quantitative methods for LIS. New Delhi, Wiley Eastern.

Wilkinson, T.S. and Bhandarkar, P.L.(1979). Methodology and Techniques of Social Research. Mumbai, Himalaya Publication.

Kothari, C.R.(1984). Quantitative techniques. (Ed. 2). New Delhi, Vikas Publication.

# KNOWLEDGE ORGANIZATION AND INFORMATION PROCESSING: ADVANCED PRACTICE IN CLASSIFICATION

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 223	Knowledge Organization and Information	0	1	3	4
	Processing: Advanced Practice in				
	Classification [KOIP/APC]				

Credits: 4 Teaching Hrs: 120 (Each Unit is of 24 Hrs) Max. Marks (20+20+60) 100

### Unit-1

 Structure and Organisation of Subjects and isolates in the schemes of Colon Classification and Universal Decimal Classification:

### Unit-2

Common Auxiliaries in UDC

### Unit-3

- Special Auxiliaries in UDC
- System & Special subject, devices, ACI and PCI in CC

### Unit-4

• Phase Relation in CC and UDC Classification

### Unit-5

• All types of document titles (subject) representation in Class Numbers

### **Suggested Reading List**

Fosket, A. C. Universal Decimal Classification. 1973. Clive Bingley, London.

McLlwaine, I. C. The Universal Decimal Classification: a guide to its use. 2007. UDC Consortium, The Hague, Netherlands.

Raju, A.A.N. (2007) Universal Decimal Classification (IME-1993): Theory and Practice. Delhi, Ess Ess Publications,.

Satyanarayana, V.V.V. Universal Decimal Classification. N. Delhi, Ess Ess Publications, 1998. UNIVERSAL DECIMAL CLASSIFICATION. British Standards Institution, London.

# STATISTICAL TECHNIQUES AND BIBLIOMETRICS

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 224	Statistical Techniques and Bibliometrics	3	0	0	3

Credits: 3 Teaching Hours: 45 (Each Unit is of Hrs) Max. Marks (20+20+60) 100

### **Unit – 1:** Bibliometrics:Introduction

- Bibliometrics: Definition, Facets, Usefulness in Research
- Bibliometric Parameters

### **Unit-2: Bibliometrics Laws**

- Bradford's Law of Scattering
- Ziff's Law
- Lotka's Law

### Unit – 3: Statistical Analysis

- Statistical Analysis and Interpretation of Data: Frequency Distribution, Measures of Central Tendency: Mean, Mode and Median
- Regression Analysis and Correlation Coefficients

### **Unit – 4: Citation Analysis**

- Citation concepts: citation analysis, citation network, citation matrix, bibliographic coupling, co-citation analysis, Journal Citation Reports, Impact Factor
- Various growth models, the half-life analogy, determination of aging factor.

### **Unit – 5 Bibliometrics study and Related Index**

- Librametrics, Scientometrics, Informetrics, Webometrics, Cybermetrics and Altmetrics
- H-Index, I10-Index and G-Index

### **Suggested Reading**

- Egghe, L.(2005). Power laws in the information production process: Lotkaian informetrics. Amsterdam, Elsevier Academic Press.
- Egghe, L., & Rousseau, R. (1990). Introduction to informetrics: Quantitative methods in Library, documentation and Information science. Amsterdam, Elsevier Academic Press.
- Egghe, L., & Rousseau, R.(2001). Elementary statistics for effective Library and Information service management. London, Aslib-IMI.
- Garfield, E.(1979). Citation indexing: Its theory and application in science, technology and humanities. New York, John Wiley Publication.
- Kothari, C.R.(1990). Research Methodology: Methods and techniques. (*Ed.2*) New Delhi, Vishwa Prakashan.
- Ravichandra Rao, I.K.(1985). Quantitative methods for LIS. New Delhi, Wiley Eastern.
- Sehgal, R.L.(1991). Statistical techniques for Librarians. New Delhi, Indian Bibliographic Centre.
- Sehgal, R.L.(1996). Applied statistics for Library science research. (2Vol.) New Delhi, Indian Bibliographic Centre.
- Sardana, J.L. and Sehgal, R.L.(1992). Statistical methods for Librarians. New Delhi, Indian Bibliographic Centre.

### **DIGITAL LIBRARY**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS CC 225	Digital Library	3	0	0	3

Credits: 3 Teaching Hours: 45 (Unit Hrs as indicated below) Max. Marks (20+20+60) 100

### **Unit - 1. Introduction**

[09 Hours]

- Genesis, definition, objectives, scope, components, soft wares for digital library
- Digitization devices (scanners, cameras)software, process

### **Unit - 2 : Design and Organization of Digital Library**

[09 **Hours**]

- Architecture,
- Interoperability
- Compatibility
- Protocols, standards and User Interfaces

### **Unit - 3. Digital collections**

[07 Hours]

- e-documents nature, acquisition of E-Books, E-Journals, E-zine, E-Reference Sources, Digital
- Documents (Born and legacy documents)
- Databases types (bibliographic, full-text) –nature

### **Unit - 4. Digital Resource Management**

[10 hours]

- Metadata- history, nature, standards, types
- Data warehousing
- Data mining

### Unit - 5 Open access movement & DL case studies

[10 Hours]

- Open Access Movement and Institutional repositories.
- Case study of select Digital Libraries- California Digital Library; Alexandria Digital Library; ArXive; Cogprints; Vidyanidhi

### **Suggested Reading**

Andrew Cox (2010). Introduction to Digital Library Management. London, Facet Publishing.

Chowdhury, G.G (2003). Introduction to Digital Libraries. London, Facet Publishing.

David Nicholas and Ian Rowlands (2010). Digital Consumers Reshaping the information professions. London, Facet Publishing.

Jenny Craven (2010). Web Accessibility Practical advice for the library and information professional. London, Facet Publishing.

ICADL(2001) Tutorials on Digital Libraries. Bangalore.

Leona Carpenter, Simon Shaw & Andrew Prescott (1998). Towards the Digital Library. London, LA

Lee, Stuart D(2000) Digital imaging: A practical handbook.

Malwad, NM and others (1996) Digital Libraries : Dynamic store house of digitized information. New Delhi, New Age .

Marilyn Deegan and Simon Tanner (2010). Digital Futures Strategies for the information age. London, Facet Publishing.

Smart D. Lee. (2000)Digital imaging A practical handbook London, Facet Publishing.

Vishwanathan I. (1995) Communication Technology. New Delhi ,THM.

### ORGANISATION AND MANAGEMENT OF PUBLIC LIBRARY SYSTEM

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS EC 226	Organisation and Management	3	1	0	4
	of Public Library System				

Credits: 4 Teaching Hours: 60 (Each Unit is of 12 Hrs) Max. Marks: (20+20+60) 100

### **Unit –1: Public Library System- Basic**

- Public library system: Definition, types and their functions
- Role of libraries in public institutions
- Role of RRRLF in the development of public libraries.

### **Unit-2: Human Resource Management**

- Human Resource Management: Concept, Definition, Importance
- Recruitment, Training, Motivation/Improvement
- Job Description, Job Analysis

# Unit -3: Financial Management and Environmental Management

- Budgeting: Types or methods
- Library Building Planning: Concept, Elements and Types.
- Furniture fitting and equipment: Standard and specifications.

### **Unit –4: Collection Development**

- Collection Development : Policy, Principles and tools
- Standard and Specifications
- Maintenance: Weeding, Stock Verification, Preservation of Library Materials

### **Unit-5: User Oriented Services**

- User Services: Need and Types
- Information Products: Types
- Marketing of Information Services: Strategies

### **Suggested Reading**

Ramaiah, L.S. [et al]. Public Library System: Services and Networking. 2 Vols. New Delhi , Indian Bibliographic Centre.

Murisen, W.A. Public Library: Its origin, purpose and significance. London, Horrup.

Ranganathan, S.R. (1973) Public Library System. Series-1. Bangalore, SRELS

Rath, P.K. Fundamentals of State Library System. New Delhi, Parimal Publication, 1990.

Rout, R.K. (Ed.)1986. Library Legislation in India: Problems and Prospects. New Delhi, Reliance,

Sharma – Pandey, S.K. Public Libraries in India. New Delhi, Ess Ess Publications, 1985

Ranganathan, S.R. Library Development Plan: A 30 year programme for India with draft library bill. Delhi, Delhi University, 1954.

Venkappaiah, V. Indian Library Legislation. 2 Vols. New Delhi, Indian Bibliographic Centre, 1990.

Venkappaiah, V. (1996) Modern Library Legislation. New Delhi, Indian Bibliographic Centre, 1994.

Sharma, H.D. Library building and furniture: A handbook for librarians. New Delhi, IBC

Saxena, Manoj. (1994). Library buildings: Design and planning. New Delhi, IBC

Faruqi, Khalid K. (1998) Planning library buildings. New Delhi, Indian Bibliographic Centre.

# ORGANISATION AND MANAGEMENT OF ACADEMIC LIBRARY SYSTEM

CODE	NAME OF COURSE	L	T	P	TOTAL
<b>LIS EC 227</b>	Organisation and Management	3	1	0	4
	of Academic Library System				

Credits: 4 Teaching Hours: 60 (Each Unit is of 12 Hrs) Max. Marks: (20+20+60) 100

### Unit -1: Development of Academic Library: An overview

- Academic library: Objectives, types and Functions
- History and Development of Libraries with Special Reference to India
- Role of Libraries in Formal and Non-Formal Education System
- Role of UGC in the development of college and university libraries.

### Unit - 2: Financial and Human Resource Management

- Sources of Finance, Budgeting: Types and methods
- Library Building Planning: It's Concept, elements and types.
- Furniture fitting and equipment: Standards and specifications.
- Human Resource planning and Management

### **Unit – 3: Collection Development and Electronic Resource Management**

- Collection development principles, policy and tools
- Periodicals, Conference Literature, Grey Literature and Government Publications Non-Book Materials Electronic Resources and Online Databases

### **Unit – 4 User Services**

- User :Types
- User Need: Types
- User Services : Type

# **Unit-5: Marketing of Information Products and Services**

- Marketing of information Services and Products: Strategies
- Maintenance: Weeding, Stock Verification, Preservation of Library Materials

### **Suggested Reading**

Prasher, R.G.(2002). India's University Libraries. Ludhiana, Medallion Press.

Singh, Sonal. (1997). University Libraries: A current appraisal. New Delhi, Indian Bibliographic Centre.

Prasher, R.G. (1998). University Libraries in India: 1980's and beyond. New Delhi, Indian Bibliographic Centre.

Shukla, K.H.(1994). University Libraries in India: Some observations and suggestions. New Delhi, Indian Bibliographic Centre.

Gupta, Pawan K.(1998). University Library Personnel in India. New Delhi, Indian Bibliographic Centre.

Raman Nair, R.(1996). College Library Development. New Delhi, Indian Bibliographic Centre.

Chaturvedi, D.D.(1994). Academic Libraries. New Delhi, Anmol Publication.

Rajasekharan, K.(1991). Academic Library Development. New Delhi, Ess Ess.

Sharma, B.K.(2006). Academic Library System (Hindi). Agra, Y.K. Publisher.

Despande, K.S. (1985). University Library System in India. New Delhi, Sterling Publication.

# ORGANISATION AND MANAGEMENT OF RESEARCH AND TECHNICAL LIBRARY SYSTEM

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS EC 228	Organisation and Management of Research	3	1	0	4
	and Technical Library System				

Credits: 4 Teaching Hours: 60 Hours (Each Unit is of 12 Hrs) Max. Marks: (20+20+60) 100

### **Unit –1: Development of Technical Library: An Overview**

- Research and Technical Library system: Definition, types and functions
- Role of libraries in Research and Technical institutions
- Agencies and their Role in the promotion and development of Research and Technical Libraries

### **Unit-2: Human Resource Management**

- Human Resource Management: Concept, Definition, Importance
- Recruitment, Training, Motivation/Improvement
- Job Description, Job Analysis

### Unit – 3: Financial Management and Environmental Management

- Budgeting: Types or methods
- Library Building Planning: Concept, Elements and Types.
- Furniture fitting and equipment: Standard and specifications

### **Unit – 4: Collection Development**

- Collection Development : Policy, Principles and tools
- Standard and Specifications
- Maintenance: Weeding, Stock Verification, Preservation of Library Materials

### **Unit-5: User Oriented Services**

- User Services: Need and Types
- Information Products: Types
- Marketing of Information Services: Strategies

### **Suggested Reading:**

Ashworth, W. (Ed.) (1967) Handbook of Special Librarianship and information work. London, ASLIB.

Burkett, J. and Morgan, T.E. (Eds.) (1957)Special materials in the library. London, Library Association.

Faruqi, Khalid K. (1997) Automation in Libraries. New Delhi, Indian Bibliographic Centre.

Krishan Kumar (1973)Research Libraries in Developing Countries. Delhi, Vikas.

Lewis, C.M. (Ed.) (1965) Special Libraries: How to plan and equip them. New York, Special Library Association,

Mahapatra, P.K. (1985) Computer in Library Services. New Delhi, Indian Bibliographic Centre.

Panda, B.D. (1992) Towards Special Library System. New Delhi, Indian Bibliographic Centre.

Saha, J. Special Libraries and Information Services in India and USA. Metuchen, Scarecrow Press.

Singh, S.P. and Krishan Kumar (2005) Special Libraries in the Electronic Environment. New Delhi, Books Well.

Strauss, J.L. and Others (1972) Scientific and Technical Libraries. Ed 2. New York, Backer & Hayes.

### **DISSERTATION**

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS EC 229	Dissertation	0	4	0	4

Maximum Marks (Report- 60 Marks + Viva-voce 40 Marks) 100

The candidate is required to submit the report of a project work undertaken by him in consultation with a Faculty Advisor with the commencement of the  $2^{nd}$  Semester. The topic of the project shall be fixed in consultation with the teacher within one month of the notification for the  $2^{nd}$  Semester. The project report shall be evaluated both by the external examiner and internal examiner and the marks shall be awarded jointly in a joint sitting after conducting the viva.

### End Semester Examination of 100 Marks consists of

- (i) Dissertation report- 60 marks
- (ii) Viva-voce- 40 marks

### SYSTEM ANALYSIS AND DESIGN

CODE	NAME OF COURSE	L	T	P	TOTAL
LIS AU 2210	System Analysis and Design	3	0	0	3

Credits: 3 Teaching Hours: 45 (Each Unit is of 9 Hrs) Max. Marks(20+20+60) 100

### **Unit – 1 : System Approach**

- System concepts: Definitions, characteristics, components
- Types of System
- System approach to a Library

### **Unit – 2: System Development Life Cycle**

- Approaches to system development
- System development life-cycle phases
- Roles involved in SDLC

### **Unit – 3 : System Development Tools**

- Flow Chart
- Data Flow Diagrams
- Decision Tables
- Decision Tree

### **Unit – 4 : Project Management**

- Feasibility Study
- Project Scheduling: Use of PERT/CPM

### **Unit – 5 : System Management**

- Management Information System (MIS)
- System evaluation: SWOT
- Total Quality Management (TOM)

### **Suggest Reading**

Atherton, P. (1997). Handbook for information system and services. Paris, UNESCO.

Burch , J.G. and Grudnitski G. (1986) Information systems: theory and practice. Singapore. Wiley Kashyap, M.M.. (1999) Computer-based Library Information Systems Designing Technique. New Delhi, Sterling Publishers. 377p

Kenneth E. Kendall and Julie E. Kendall. (2001) Systems Analysis and Design. 5th Edition, Prentice Hall PTR.

Kochtanek, T. R. and Matthews, J. R. (2002) Library information systems: from library automation to distributed information access solutions. West Westport, Libraries Unlimited.

Rowley, J. (1996) The basics of information system. Ed 2. London. Library Association.

Vickery, B. C(1973) Information systems. London, Butterworth.