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)
## Scheme of Courses: Semester 2

### Core Course

<table>
<thead>
<tr>
<th>S.No</th>
<th>TH/PR</th>
<th>Course Code</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
<th>Int.</th>
<th>Mid</th>
<th>End</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TH</td>
<td>LIS CC- 221</td>
<td>Information and Communication Technology in LICs</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>TH</td>
<td>LIS CC- 222</td>
<td>Research Methodology</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>PR</td>
<td>LIS CC- 223</td>
<td>Knowledge Organisation and Information Processing: Advanced Practice in Classification (KOIP/APC)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>TH</td>
<td>LIS CC- 224</td>
<td>Statistical Techniques and Bibliometrics</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>TH</td>
<td>LIS CC- 225</td>
<td>Digital Library</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

### Electives (Any one)

<table>
<thead>
<tr>
<th>S.No</th>
<th>TH/PR</th>
<th>Course Code</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
<th>Int.</th>
<th>Mid</th>
<th>End</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>TH</td>
<td>LIS EC- 226</td>
<td>Organisation and Management of Public Library System</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>TH</td>
<td>LIS EC- 227</td>
<td>Organisation and Management of Academic Library System</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>TH</td>
<td>LIS EC- 228</td>
<td>Organisation and Management of Research and Technical Library System</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>TH</td>
<td>LIS EC- 229</td>
<td>Dissertation</td>
<td>0</td>
<td>4</td>
<td></td>
<td></td>
<td>Repo rt-60</td>
<td>Viva-voce = 40 Marks</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>600</td>
</tr>
</tbody>
</table>

### Department Elective (Optional)

<table>
<thead>
<tr>
<th>S.No</th>
<th>TH/PR</th>
<th>Course Code</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
<th>Int.</th>
<th>Mid</th>
<th>End</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>TH</td>
<td>LIS AU-2210</td>
<td>System Analysis and Design</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>20</td>
<td>20</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME OF COURSE</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS CC 221</td>
<td>Information and Communication Technology in LICs</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

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
- 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**
Malavya, V.C. Electronic Libraries. 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.
RESEARCH METHODOLOGY

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME OF COURSE</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS CC 222</td>
<td>Research Methodology</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

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
KNOWLEDGE ORGANIZATION AND
INFORMATION PROCESSING: ADVANCED PRACTICE
IN CLASSIFICATION

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME OF COURSE</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS CC 223</td>
<td>Knowledge Organization and Information Processing: Advanced Practice in Classification [KOIP/APC]</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

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**

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

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]
- 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
ORGANISATION AND MANAGEMENT OF PUBLIC LIBRARY SYSTEM

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME OF COURSE</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS EC 226</td>
<td>Organisation and Management of Public Library System</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

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
- Ranganathan, S.R. Library Development Plan: A 30 year programme for India with draft library bill. Delhi, Delhi University, 1954.
- Sharma, H.D. Library building and furniture: A handbook for librarians. New Delhi, IBC
ORGANISATION AND MANAGEMENT OF ACADEMIC LIBRARY SYSTEM

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME OF COURSE</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS EC 227</td>
<td>Organisation and Management of Academic Library System</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

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
ORGANISATION AND MANAGEMENT OF RESEARCH AND TECHNICAL LIBRARY SYSTEM

<table>
<thead>
<tr>
<th>CODE</th>
<th>NAME OF COURSE</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIS EC 228</td>
<td>Organisation and Management of Research and Technical Library System</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

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:
Krishan Kumar (1973) Research Libraries in Developing Countries. Delhi, Vikas.
Saha, J. Special Libraries and Information Services in India and USA. Metuchen, Scarecrow Press.
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 2nd Semester. The topic of the project shall be fixed in consultation with the teacher within one month of the notification for the 2nd 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
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 (TQM)

Suggest Reading