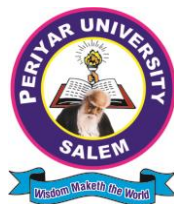


PERIYAR UNIVERSITY
Periyar Palkalai Nagar, Salem-636 011
(Reaccredited with 'A' Grade by the NAAC)

**DEPARTMENT OF LIBRARY AND INFORMATION
SCIENCE**



M.Lib.I.Sc DEGREE

[Choice Based Credit System (CBCS)]

OBE REGULATIONS AND SYLLABUS

***(Effective from the academic year 2018-2019 and
thereafter)***

M.Lib.I.Sc DEGREE

OBE REGULATIONS AND SYLLABUS

(With effect from the academic year 2018-2019 onwards)

1. Preamble

The Master of Library and Information Science is a program designed to meet the challenges of LIS profession. Students in the program are introduced to the roles and functions of libraries. They become familiar with key policy issues and technological trends, and with how these issues and trends affect libraries and information centers of all kinds. Students learn to manage and evaluate collections, respond to the information needs of patrons, and use technology to improve access to information. Students who complete the program are prepared for careers in library administration, public services, technical services, and collection development at public, school, academic, and special libraries.

2. General Graduate Attributes

LIS in Society: Students understand both the importance of information in modern society and the roles played by libraries, information organizations, information systems, services, and technologies in building and sustaining communities.

Knowledge Areas: Students applying the technical knowledge needed to do the job, including competence in library and information management.

Critical thinking skill: Students use this skill to evaluate information resources, technology, services and challenges in library administration.

Research: Students learned about the nature of scientific inquiry, the conduct of research, methods of collect, managing and analyzing data and the relationship among methods and evidence.

Problem Solving: students learn a variety of problem-solving tools and approaches in end of course to solve the issues.

Technical Skill: Students can apply appropriate strategies, tools, and technologies to represent, organize, and manage, preserve and dissemination of data and information.

Collaboration: To enable students' collaboration with other institute / friends / department faculty for knowledge, resource sharing and research

Communication: Career development skills including written and oral communication are necessary for work, function, and contribute as a member of a team.

Self directed learning: Students will engage in life-long learning, making effective use of the range of information resources for research and popular writings, professional organizations that support information work.

Career skills: students with a wide range of technological skills require for professional career.

Diversity: This emphasizes equal opportunity and diversity which lead to all the visitors in library.

Ethical Practice: Graduates practice for fulfilling careers characterized by ethical practice, and professional values through curriculum.

Sustainability: LIS degree programs with a global effort to change attitudes toward and behaviors involved in managing the world's resources. The syllabus meets the needs of present and future generations.

Social Responsibility: Students understand library and information professionals' roles in promoting and advocating for social responsibility on a contemporary issue through a major paper and resource guide.

3. Programme Specific Qualification Attributes

Mention the programme specific qualification attributes achieved through courses in the programme in terms of

- Knowledge and understanding level (K1 and K2)
- Application level (K3)
- Analytical level (K4)
- Evaluation capability level (K5)
- Scientific or synthesis level (K6)

4. Vision

Master of Library and Information Science produce innovative next generation library professionals capable to work in national and global levels.

5. Programme objectives and outcomes

PROGRAMME EDUCATIONAL OBJECTIVE (PEOs)

1. Graduates will manage Libraries and Other Information Organizations.
2. Graduates will succeed in higher studies and research.
3. Graduates of Library and Information Science will demonstrate highest integrity with ethical values, good communication skills, leadership qualities and self learning abilities.

PROGRAM OUTCOMES (PO's)

LIS course will enable the students

1. Students can understand the foundation and fundamental of LIS principles, philosophy, ethics, policies and legislations.
2. Students can manage information resources and the processes of collection development, organization, preservation, access, and dissemination of information in all formats.
3. Students can apply management concepts, effective problem solving, decision-making, in management of information and information services.
4. Students learn the national and international standards of cataloguing, metadata, indexing, and classification systems for organizing knowledge and information for easy retrieval.
5. Students learn the nature of the profession – Inter disciplinary, team work, and user centric.
6. Students know the role of library and information services, towards serving the needs of the society development.
7. Students can recognize the diverse needs of users and fulfill with appropriate and different formats of information resources.
8. Students can develop them to, evaluate and analyses about the resources and services.
9. Students understand the role of library and information services in a rapidly changing technological society.
10. Students can make use of the techniques, skills and Information and Communication Technology (ICT) tools, Software necessary for Library profession.
11. Students identify the research problem and conduct the research in the field of LIS, which includes metric studies and ICT.

12. Students gain the knowledge in conducting studies related to information needs and information seeking behavior of patrons.

6. Candidate's eligibility for admission

A candidate who has passed **ANY** degree examination of this University or an examination of any other Universities / Institutions approved and accepted by the Syndicate of this University as equivalent thereto.

7. Duration of the programme

The duration of the course is **Two years**. It consists of **FOUR** semesters under **Choice Based Credit System (CBCS)**. The minimum requirement for a two year Master's programme shall be 90 credits.

8. CBCS- Structure of the Programme

The programme structure comprises of two parts.

Course Component	No. of Courses	Hours of Learning	Marks	Credits
Part A (Credit Courses)				
Core Courses	18			
Elective Courses	2			
Supportive Courses	2			
Research				
Online Courses	1*			
Total	23			
Part B (Self-Learning Credit Courses)				
Elective Foundation Courses				
Total				

9. Curriculum structure for each semester as per course alignment

Course	Number of Credits	Hours Per Week	Examination Duration (hrs)	Marks		
				I. A	ESE	Total
Semester-I						
Course-18UPLIS1C01 Foundations of Library and Information Science	4	4	3	25	75	100
Course-18UPLIS1C02 Introduction to Information Technology	4	4	3	25	75	100
Course-18UPLIS1C03 Management of Library and Information Centers	4	4	3	25	75	100
Course-18UPLIS1C04 Information Processing - Classification Theory	4	4	3	25	75	100
Course-18UPLIS1C05 Information Processing – Classification Practice (DDC & CC - Practical)	4	4	3	40	60	100
Course-18UPLIS1C06 Computer Lab Practice (Practical)	4	4	3	40	60	100
Total	24					600
Semester-II						
Course-18UPLIS1C07 Information Sources and Services	4		3	25	75	100
Course-18UPLIS1C08 Library Automation and Digital Libraries	4	4	3	25	75	100
Course-18UPLIS1C09 Information Processing - Cataloguing Theory	4	4	3	25	75	100
Course-18UPLIS1C10 Information Processing and Retrieval – Cataloguing Practice - AACR-II and UDC (Practical)	4	4	3	40	60	100

06PHR01 - Human Rights		4	3	25	75	100
Supportive – I	3	3	3	25	75	100
	19					600
Semester-III						
Course-18UPLIS1C11 Information Retrieval System	4	4	3	25	75	100
Course-18UPLIS1C12 Research Methodology	4	4	3	25	75	100
Course-18UPLIS1C13 Knowledge Management	4	4	3	25	75	100
Course-18UPLIS1C14 Preservation and Conservation of Library Resources	4	4	3	25	75	100
Course-18UPLIS1C15 Library Automation and Digital Library (Practical)	4	4	3	40	60	100
Course-18UPLIS1C16 Internship (Practical)	4	3 Weeks	3	40	60	100
Swayam / Mooc Course		4	-	-	-	-
Supportive – II	3	3	3	25	75	100
	27		3			700
Semester- IV						
Course-18UPLIS1E17	4	4	3	25	75	100
Course-18UPLIS1E18	4	4	3	25	75	100
Course- 18UPLIS1C19 Multimedia Tools (Practical)	4	4	3	40	60	100
Course-18UPLIS1C120 - Project: Dissertation & Viva- Voce	4	?	3	40	60	100
	20					400

10. Credit Calculation

Method of teaching	Hours	Credits
Lecture	1	1
Tutorial/Demonstration	1	1
Practical/Internship/self-Learning	2	1

11. Scheme of Examinations

Total Marks	: 2300 Marks
For each Theory course	: 100 Marks (IA: 25 + UE: 75)
For each Practical course	: 100 Marks (IA: 40 + UE: 60)
For Internship Training	: 100 Marks (IA: 40 + EA: 60)
Dissertation and Viva-voce	: 100 Marks (IA: 40 + viva-voce 60)

12. Examinations

Examinations are conducted in semester pattern. The examination for the Semester I & III will be held in November/December and Semester II and IV will be in the month of April/May.

Candidates failing in any subject (theory and practical) will be permitted to appear for such failed subjects in the same syllabus structure at subsequent examinations within **next 3 years**, failing which, the candidate has to complete the course in the present existing syllabus structure.

The distribution of marks for internal evaluation and End Semester Examination shall be 25 marks and 75 marks, respectively. Further, distribution of internal marks shall be 10 marks for test, 5 marks for seminar, 5 marks for assignment and 5 marks for attendance, respectively. The average of the highest two test marks out of the three internal tests should be taken for Internal Assessment.

13. Scheme for Evaluation and Attainment Rubrics

Evaluation will be done on a continuous basis and evaluated four times during the course work. The first evaluation will be in the 7th week, the second in the 11th week, third in the 16th week and the end – semester examination in the 19th week. Evaluation may be by objective type questions, short answers, essays or a combination of these, but the end semester examination is a University theory examination with prescribed question paper pattern.

Attainment Rubrics for Theory Courses (Time: 3 hours)

External: 75 Marks
Internal: 25 Marks
Total: 100 Marks

The following procedure will be followed for Internal Marks:

Theory Papers (Internal)

Best two tests out of 3: 10 marks

Attendance : 5 marks
Seminar : 5 marks
Assignment : 5 marks

25 marks

Question Paper Pattern (Theory)

Section	Approaches	Mark Pattern	K Level	CO Coverage
A	One word (Answer all questions)	20X1 = 20 (Multiple Choice Questions)		
B	100 to 200 words (Answer any three out of five questions)	3X5 = 15 (Analytical type questions)		
C	500 to 1000 words	5X8 = 40 (Essay type questions)		

Attainment Rubrics for Lab courses

Practical: 40 Internal Marks

Attendance: 5 marks
Practical Test: 30 marks (Best 2 out of 3)
Record: 5 marks

Attainment Rubrics for Project

Internal Marks: 20 marks
Viva - voce: 20 marks
Project Report: 60 marks

14. Evaluation of performance of students is based on ten-point scale grading system as given below.

Ten Point Scale			
Grade of Marks	Grade points	Letter Grade	Description
90-100	9.0-10.0	O	Outstanding
80-89	8.0-8.9	D+	Excellent
75-79	7.5-7.9	D	Distinction
70-74	7.0-7.4	A+	Very Good
60-69	6.0-6.9	A	Good
50-59	5.0-5.9	B	Average
00-49	0.0	U	Re-appear
ABSENT	0.0	AAA	ABSENT

Re – Appear = RA

Semester I

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C01: Foundations of Library and Information Science	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students understand the fundamental concepts and types of Libraries.												
CO2: To ensuring effective communication with variety of audience.												
CO3: Students familiar with codes of ethics & fundamental laws of library science.												
CO4: Students understand library legislation & RTI.												
CO5: To understand Role, functions and responsibilities of Library associations at the state, national and international levels.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C02: Introduction to Information Technology	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students will attain knowledge of computer hardware and software.												
CO2: Students will attain an understanding encoding standards of computer.												
CO3: Students will understand the importance of operating system.												
CO4: Students will understand various computer network and different types of browser.												
CO5: Students can create and use Multimedia tools, spread sheets, Charts and graphs.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C03: Management of Library and Information Centers	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students understood management principles and other cross-disciplinary perspectives to develop best practices in library and information centers.												
CO2: Understood the system of charging and discharging.												
CO3: Acquired knowledge on HRD, Budget, planning and their relationship to the library environment.												
CO4: Acquired knowledge to manage the information resources, including information acquisition, management, dissemination, organization and preservation.												
CO5: Able to facilitate the variety of audiences.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C04: Information Processing - Classification Theory	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Gained knowledge about the concepts of knowledge organization												
CO2: Students will understand the process related to construct classification number.												
CO3: Student will able to know various systems for classification												
CO4: To develop skills in document classification and content analysis.												
CO5: To acquired the knowledge on the online classification schemes.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C05: Information Processing –Classification Practice (DDC & CC - Practical)	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students will understand the scheme of knowledge classification.												
CO2: Students will understand the process related to construct classification number.												
CO3: Student will capable of applying the classification rules.												
CO4: Student understands three systems of classification.												
CO5: Earned skills for classifying all documents including non book materials and micro documents.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C06: Computer Lab Practice (Practical)	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Student will able to Install and Uninstallation of Software.												
CO2: Students can able to Create and use various file formats.												
CO3: To learn the practical uses of ICT in libraries and information Centers.												
CO4: Students will learn various searching techniques to locate the information.												
CO5: Deploy Information Technologies in Effective and Innovative Ways.												

FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE

COURSE CODE: 18UPLIS1C01

HOURS:

MARKS : 100

L	T	P	C

Course Objectives

- To know the fundamental concepts of information and different types of Library and Information Systems & Centers
- To enable the students to understand the Communication Channels and its barriers.
- To enable the students to understand the importance of information in the context of social, political, cultural, economical and industrial environments.
- To enable the students to understand the relevance of Library profession.
- To know the role of information for the development of the society.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Nature of Information	Definition: Data, Information, Knowledge and Wisdom, characteristics of Information; various patterns and models of Information – factors influencing growth of Information, Information transfer cycle; Impact of socio-economic changes.	
II	Communication	Concepts, definition, theories and models, Channels and Barriers of Communication.	
III	Libraries & Professional Associations	Functions and Services; Five Laws of Library Science and its implications; Professional ethics; Role of Professional Associations: National and International Levels – ILA, IASLIC, IATLIS, IFLA and ALA	
IV	Library Legislation	Model Library Bill, Delivery of Books and Newspapers Act – Intellectual Property Rights – Information policy, Right to Information, Knowledge Commission.	
V	LIS School developments	Promoters of Library and Information Services – UNESCO, RRRLF - Extension Activities: ICT enabled services to public – Evolution, growth and development of LIS Schools in India – Current Trends.	

Text & Reference Books:

1. Khanna, J.K. Library and Society. Kurushektra: Research Publication, 1987
2. Richerd E Rubin. Foundations of Library and Information Science. New York, Neal-Schuman Publishers. 2004.
3. UNESCO. National Libraries their problems and prospects. Paris.1960.
4. Rubin, Richard E. Foundations of Library and Information Science. Neal-Schuman Publishers, Inc., 100 Varick St., New York, 1998.
5. Reitz, Joan M. Dictionary for Library and Information Science. Libraries Unlimited, 2004.
6. Ranganathan, S. R. Five Laws of Library Science. 5th ed. Bangalore: Sarad Ranganathan Endowment for Library Science, 2006.
7. Venkatappaiah, Velage and Madhusudan, M. Public Library Legislation in the New Millennium: New Model Public Library Acts for the Union, States and Union Territories. Delhi: Bookwell, 2006.

Web Resources:

1. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-001.pdf>
2. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-002.pdf>
3. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-004.pdf>
4. <https://www.ilaindia.net/>
5. <http://www.iatlis.org/>
6. <http://www.iaslic1955.org.in/Default.aspx?PageID=62>
7. <https://www.ifla.org/>
8. <https://www.alastore.ala.org/content/chartered-institute-library-and-information-professionals-cilip>

Course Outcomes

On successful completion of the course,

- CO1 Students understand the fundamental concepts and types of Libraries.
- CO2 To ensure effective communication with variety of audience
- CO3 Students familiar with codes of ethics & fundamental laws of library science.
- CO4 Students understand library legislation & RTI.
- CO5 To understand Role, functions and responsibilities of Library associations at the state, national and international levels.

Introduction to Information Technology

COURSE CODE: 18UPLIS1C02

HOURS:

MARKS : 100

L	T	P	C

Course objectives

- To learn the basic concepts of Information Technology
- To learn the applications of Information Technology to Library routines and services in Information centers.
- To know the Networking technology and database management.
- To extend knowledge with personal computer for word processing, spread sheets and databases.
- To learn about the ICT application in Libraries and information centers

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	IT Basic Concept	Concept, Meaning and Definitions. Components – Impact of Information Technology on society – Computer and Communication Technologies, Types of computers – CPU, Storage and Input/output Devices, RAM and ROM, USB, Hard Discs, Scanners and Camera, Printers.	
II	Encoding Standards	Data presentation in Computers: Binary Number System, Character encoding standards – ASCII, BCD, EBCDIC and UNICODE.	
III	Software – OS	System Software and Application Software, Programming Concepts: Open source and Propriety, Operating Systems: Single & Multi – User system – MS-Window, Linux, UNIX, Window-NT, Client-server architecture.	
IV	Networks and Topologies	LAN, MAN, WAN – Internet - IP address and domain name system, Internet, Intranet – Web Technology: Web Browser, Search Engines – Hypertext, Hypermedia - Integrated Service Digital Network (ISDN) – Open System Inter connection (OSI).	
V	DBMS	Objectives, Characteristics and Design – RDBMS – Office Management: Word processing, Spreadsheet, Presentation Software, Database in LIS.	

Texts & Reference Books:

1. ITL Education Solutions Limited, Introduction to information technology, New Delhi, Pearson Publications, 2012.
2. Rajaraman, V., Introduction to Information Technology, 3rd ed., New Delhi, PHI Learning Pvt. Ltd., 2018.
3. Rizwan Ahmed .P, Introduction to information Technology, Chennai, Margham Publications, 2013.
4. Rajiv R. Paithankar, Govind S. Ghogare, Information Technology in Library Science, Anmol Publications Pvt. Ltd., New Delhi, 2015.

Web Resources:

1. https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/academic_libraries/11_ict_application_in_academic_libraries_and_its_impact-2/et/2010_et_11.pdf
2. <https://www.nic.in/services-main-page/>
3. <https://www.inflibnet.ac.in/>
4. <http://www.delnet.in/>
5. <http://oer.nios.ac.in/wiki/index.php/ICT-Application>

Course outcomes

On successful completion of the course,

CO1: Students will attain knowledge of computer hardware and software.

CO2: Students will attain an understanding encoding standards of computer.

CO3: Students will understand the importance of operating system.

CO4: Students will understand various computer network and different types of browser.

CO5: Students can create and use Multimedia tools, spread sheets, Charts and graphs.

MANAGEMENT OF LIBRARY AND INFORMATION CENTRES

COURSE CODE: 18UPLIS1C03

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To know various concepts of Management and its Evolution.
- To understand the various managerial operations, planning and budgeting of Library and Information Centers.
- To apply the relevant management techniques in modern Library and Information Centers.
- To impart the techniques of library routines both physical and online environment.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Principles of Library Management	General Management Principles – Elements of Management - Library organization – structure Management School of Thoughts - Henri Fayal - Frederick Winslow Taylor (Scientific Management) - POSDCORB Levels of Management - Functional areas of management - Management by Objectives.	
II	Library Housekeeping Operations	Collection Development Policy and Procedure for Books and Non-Books materials –Selection Tools Various sections of libraries and information centers and their functions Acquisitions section – Conventional - Web based / online acquisition of reading materials Technical section Circulation section Periodical section; Reference Section Stock maintenance and Stock verification - Binding and Preservation - Weeding out policies.	
III	Financial Management	Sources of Library Finance Budget techniques and method - PPBS, Zero Based Budgeting Cost effective and cost benefit analysis Library Buildings, Furniture and Equipment.	
IV	Human Resource Management	Staffing - Recruitment – Staff formula - Training – Performance Appraisal - Motivation	

V	Managerial Tasks in Library Administration	Library Governance - Library authority - Library committee, need and functions - Library Ethics – Library rules and regulations – Norms for library (AICTE, UGC, MCI, etc.) -Challenges for Librarianship in digital era.	
---	--	---	--

Texts & Reference Books:

1. Krishan Kumar : Library Administration and Management . New Delhi : Vikas , 1987.
2. Mittal, RL Library Administration: Theory and Practice. ESS ESS Publications, 2nd Edition, New Delhi.
3. Ranganathan , S.R. : Library administration . 2nd ed. Bombay, Asia
4. Ranganathan , S.R. : Library Book Selection, ESS ESS Publications, 2nd Edition, New Delhi.
5. Sethunath, V.S. and Ganesh kumar,M, Librarianship in Digital Era, Crescent Publication Corporation, New Delhi, 2012.
6. Praveen Kumar (Ed), Emerging Trends in Library and Information Science, ESS ESS Publications, New Delhi, 2013.

Web Resources:

1. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-015A.pdf>
2. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-016A.pdf>
3. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-011.pdf>
4. <http://www.lisbdnet.com/library-budget-objectives-methods/>
5. <http://epgp.inflibnet.ac.in/ahl.php?csrno=21>

Course outcomes

On successful completion of the course,

- CO1:** Students understood management principles and other cross-disciplinary perspectives to develop best practices in library and information centers.
- CO2:** understood the system of charging and discharging
- CO3:** Acquire knowledge on HRD, Budget, planning and their relationship to the library environment
- CO4:** Acquire knowledge to manage the information resources, including information acquisition, management, dissemination, organization and preservation.
- CO5:** Able to facilitate the variety of audiences.

INFORMATION PROCESSING – CLASSIFICATION THEORY

COURSE CODE: 18UPLIS1C04

HOURS

MARKS : 100

L	T	P	C

Course Objective

- To understand the concepts of knowledge organization.
- To learn the various classification schemes.
- To know the methods related to designing depth schedule and the use of technologies in library classification.
- To learn the classification of Print and non print resources

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Basic Concepts	Meaning, Definition, purpose, Needs, Functions; knowledge classification and book classification; Understanding Different types of classification – Enumerative and Analytico – Synthetic Schemes	
II	Formation of subjects, Plane of works	Basic, Primary, Compound and Complex Subjects; Normative principles and their applications; Notation Concepts, Features, Qualities; Three plans of work.	
III	Theory of Library Classification	Facet Analysis; Rounds and Levels; Common Isolates and auxiliaries: ACI and PCI and special; Postulate and Postulation Approach; array and chain, Devices, canons Law; Phase Relations	
IV	Schemes of Library Classification	DDC, UDC, CC and Broad system of Ordering (BSO) Structures and Features; Parts of Call Number	
V	Trends and Future of Library Classification	Classification of Digital Resources; Recent Developments in Classification – Web Dewey, Role of Classification Research Group (CRG)	

Text & Reference Books:

1. Krishan Kumar: Theory of Classification, South Asian books, 1st Ed, 1979
2. Krishan Kumar : Theory of Classification, 2nd rev. ed. Delhi, Vikas, 2001.
3. Shabahat Husain. Library Classification: Facet and Analysis. Ed. 2 Rev. Delhi, B.R.Publishing Corporation, 2004
4. Susan Batley : Classification in theory and practice, 2nd Ed, Chandos publishing 2014.
5. Kamal Dogra: Theory of Library Classification, Centrum Press, New Delhi, 2013

Web Resources:

1. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-010.pdf>
2. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-011.pdf>
3. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-009.pdf>

Course Outcomes

On successful completion of the course,

CO1: Gain knowledge about the concepts of knowledge organization.

CO2: Students will understand the process related to construct classification number.

CO3: Student will capable of applying the classification rules.

CO4: Student will able to know various systems for Classification.

CO5: To acquire the knowledge on the online classification schemes.

Information Processing –Classification Practice (DDC & CC - Practical)

COURSE CODE: 18UPLIS1C05
MARKS : 100

HOURS

L	T	P	C

Course objective

- To gain practical knowledge about classification schemes.
- To know the process related to construct classification numbers for library resources (DDC, UDC & CC).
- To learn the library classification practice using DDC 22nd ed and CC

Texts & Reference Books:

1. DDC Ed.23, OCLC Ohio,2003
2. Ranganathan, S.R. Colon Classification Ed.6. Bombay, Asia Publishing House, 1960

Web Resources:

1. <http://krishikosh.egranth.ac.in/bitstream/1/2061823/2/IISR-7.pdf>
2. https://en.wikipedia.org/wiki/Dewey_Decimal_Classification
3. <https://www.oclc.org/en/dewey/features/summaries.html>

Course outcomes

On successful completion of the course,

- CO1:** Students will understand the scheme of knowledge classification. Demonstrate understanding of subject headings, and use current and appropriate classification schemes.
- CO2:** Students will understand the process related to construct classification number.
- CO3:** Students understand three systems of Classification.
- CO4:** Make the class number for books and other reading materials
- CO5:** Earned skills for classifying all documents including non-book materials and micro Documents.

Computer Lab Practice (Practical)

COURSE CODE: 18UPLIS1C06
MARKS : 100

HOURS

L	T	P	C

Course objective

- To develop basic Information Technology skills.
- To understand issues related to install / uninstalling programmes
- To get familiar with searching techniques.
- To learn and understand various aspect of creation of files and databases.
- To familiarize with Plagiarism concept and softwares.

Practices

- Installing OS
- Creating electronic documents, files and various file formats
- Creation of Database
- Searching Databases
- Plagiarism

Course outcome

On successful completion of the course,

CO1: Student will able to Install and Un-installation of Software.

CO2: Students can able to Create and use various file formats.

CO3: Students can able to Use and create a database.

CO4: Students will learn various searching techniques to locate the information.

CO5: Students learn to deploy Information Technologies in Effective and innovative ways.

SEMESTER - II

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C07: Information Sources and Services	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To conquer the knowledge on various sources and services provided by library.												
CO2: To understood the reference sources; Institutional Repository, Web OPAC, Online Databases, and Citation databases.												
CO3: To learn the context of various information services, provide by the library.												
CO4: To understood various national information systems and their role in creation, organization, dissemination and preservation of information.												
CO5: To Work with Web 2.0 technologies such as RSS, blogs and wikis.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C08: Library Automation And Digital Library (Theory)	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Articulate how technology is reshaping the profession.												
CO2: Know the basic of ICT and Its application in Libraries and Information Centers.												
CO3: Acquired the practical applications of library automation and Digital library software.												
CO4: Understand and Create a digital library.												
CO5: Gain an understanding of technology and industry standards and their importance in the field.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C09: Information Processing – Cataloguing Theory	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To familiarize how to prepare catalogue the document using cataloguing codes.												
CO2: To enable the students the assign standard subject heading using printed subject heading lists.												
CO3: To learn how to organize the documents (book& non print materials).												
CO4: To attain the capabilities for retrieving the documents using catalogue.												
CO5: To make the students aware with the latest developments and trends in the field of cataloguing.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C10: Information Processing And Retrieval – Cataloguing Practice - AACR – II and UDC	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Learn the cataloguing code and classification scheme.												
CO2: Prepare the catalogue entries for print and non - print materials using AACR II.												
CO3: To know various forms of Catalogue.												
CO4: Create a library catalogue according to the norms of AACR-II in machine readable format.												
CO5: To make the students familiar with Online Public Access Catalogue (OPAC)												

COURSE OUTCOMES	PROGRAM OUTCOMES											
09PHR01: Human Rights	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To understand the historical growth of the idea of human rights.												
CO2: To analyse concepts and policies of human rights.												

SEMESTER - II

INFORMATION SOURCES AND SERVICES

COURSE CODE: 18UPLIS1C07

MARKS : 100

HOURS

L	T	P	C

Course objectives

- Students understand the various types of information sources and its scope.
- To train the students on various Library and Information services in different library environments.
- To learn the different National information systems and their functioning.
- To acquaint skills on web based services.
- To know the process of retrieving databases and on-line /web information resources in network environment.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Information Sources	Documentary, Non Documentary – Print and Non-Print-Electronic, Primary, Secondary, Tertiary sources, Internet source.	
II	Reference & e-resources	Types and Value – Dictionaries, Encyclopedias – Biographical – Handbooks and Manuals – Geographical – Abstracting and Indexing sources, Bibliographical Sources – INB, BNB. Web Resource– E-Books, E-Journals, E-Databases, Institutional Repositories, Subject Gateways, Citation databases.	
III	Library Services	Concepts, Types, Needs. Literature Search, Documentation Services, Translation Service, Document Delivery Service, Electronic document delivery, Referral Service, Online Reference service etc.	
IV	Information Systems	Functions of Information Systems – NISCAIR - NASSDOC – DESIDOC – SENDOC – DELNET – INFLIBNET National Knowledge Networks	
V	Recent trends	Web based Information Services — Information Alerts – Web 2.0- RSS and Blogs	

Texts & Reference Books:

1. Gurdev, Singh, Information Sources, Services and Systems, Delhi, PHI Learning Private Limited, 2013.
2. Krishan, Kumar, Reference Service, Vikas Publishers, New Delhi, 2008.
3. Sharma, C.K., Reference Service and Sources, Atlantic Publishers, Delhi, 2006.
4. Ranganathan, S.R., Reference Service, Ess Ess Publishers, Delhi, 2006.
5. Dhiman, Anil K., and Yashoda Rani, Learn Information and Reference Sources and Services, Ess Ess Publishers, New Delhi, 2005.
6. Devarajan, G. and Pulikuthiel, Joseph Kurien, Information Access, Tools, Services and Systems, Ess Ess Publishers, New Delhi, 2011.
7. Gorman, Digital Features in Information and Library Services, Chennai, Allied Publishers, 2002.

Web Resources:

1. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-005.pdf>
2. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-006.pdf>
3. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-007.pdf>
4. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-008.pdf>
5. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-012.pdf>
6. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-014.pdf>
7. <http://www.niscair.res.in/aboutus/about.asp?a=topframe.htm&b=leftcon.asp&c=introduction.htm&d=t>
8. <http://icssr.org/nassdoc>
9. <https://www.drdo.gov.in/drdo/labs1/DESIDOC/English/indexnew.jsp?pg=homepage.jsp>
10. <https://www.iaea.org/resources/databases/inis>

Course outcomes

On successful completion of the course,

- CO1:** To learn the knowledge on various sources and services provided by library.
- CO2:** To understand the reference sources; Institutional Repository, Web OPAC, Online Databases, and Citation databases.
- CO3:** To learn the context of various information services, provide by the library.
- CO4:** To understand various national information systems and their role in creation, organization, dissemination and preservation of information.
- CO5:** To work with Web 2.0 technologies such as RSS, blogs and wikis.

LIBRARY AUTOMATION AND DIGITAL LIBRARY (Theory)

COURSE CODE: 18UPLIS1C08

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To learn about the basic of library automation and digital library including global recommendations.
- To enable the students, gain knowledge about the attributes involved in library automation and creating digital libraries.
- To introduce standards and software related to library automation
- To explore the practical applications of library automation software and standards
- To enable the students, gain knowledge about Online and electronic resources and institutional repositories.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Library Automation Basic	Definition, need, purpose and advantages. Automation Vs Mechanization. Areas of Automation – Acquisition, Cataloguing, Access to Catalogue (OPAC), Circulation and Serial Control.	
II	Planning and Evolution of SW	Planning for Automation Procedure: Steps in Automation: Library services and technology Hardware and Software selection and Implementation, Library Software Packages, Criteria for Evaluation of Library Software Packages.	
III	Digital Libraries Basic	Definitions, Concept, Characteristics, functions and Advantages-Digital Library collection - Major Digital Library Initiatives.	
IV	DL Architecture	Design and Organization of Digital Libraries: Architecture, Interoperability, Protocols and Standards, Study of Digital Library Softwares.	
V	Content creation and Preservation	Digital content creation: files formats, Archives and Preservation.	

Text & Reference Books:

1. Chowdhury, G.G, Introduction to Digital Libraries. London: Facet Publishing, 2003
2. Deegan, Marilyn & Tanner, Simon, (2002) Digital futures: strategies for the information age. London: Library Association.
3. Lakshmikant Mishra, Automation and Networking of Libraries, New Age International, 2008.

Web Resources:

1. https://epgp.inflibnet.ac.in/view_f.php?category=38
2. https://en.wikipedia.org/wiki/Digital_library
3. <https://iite.unesco.org/pics/publications/en/files/3214563.pdf>
4. <https://ndl.iitkgp.ac.in/>
5. <https://nios.ac.in/media/documents/SrSecLibrary/LCh-003.pdf>
6. <http://www.librarysoftware.in/library-automation.html>

Course outcomes

On successful completion of the course,

CO1: Articulate how technology is reshaping the profession.

CO2: Know the basic of ICT and Its application in Libraries and Information Centers.

CO3: Acquired the practical applications of library automation and Digital library Software.

CO4: Understand and create a digital library

CO5: Gain an understanding of technology and industry standards and their importance in the field.

INFORMATION PROCESSING – CATALOGUING THEORY

COURSE CODE: 18UPLIS1C09

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To provide historical and theoretical foundation of Cataloguing
- To understand principles and cataloguing codes
- To learn the cataloguing of reading material according to AACR 2nd
- To understand different forms of cataloguing card
- To cataloguing different types of document in library

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Basic Concepts	Library Cataloguing – Need, Purpose and Functions; Centralized and Co-operative Cataloguing, Descriptive Vs. Limited Cataloging, Arrangement and Filing of Entries.	
II	Genesis of Cataloguing	Cataloguing Rules, types of Catalogues – Physical Forms and machine readable (Web OPAC) catalogue advantages and disadvantages, Inner forms (Dictionary, Classified and Alphabetical) of Catalogue – overview of AACR-II, MARC21, Dublin Core, ISBD, CCF and RDA (Resource Description and Access)	
III	Cataloguing Codes	Subject catalogues - Sears' List of subject headings; Indexing Languages - Pre-coordinate and Post-Coordinate Indexing, Chain indexing, Uni term Indexing, PRECIS, POPSI, KWIC, KWOC – Citation Indexing	
IV	Principles and Rules	Normative Principles of Cataloguing - Canons, Laws, Principles and their Implications; Vocabulary Control- Thesaurus	
V	Trends in Cataloguing	Recent trends - WorldCat, IndCat, Pre-Natal Cataloguing, Cataloging in Publication, Union Catalogue.	

Text & References:

1. Kumar. PSG. Knowledge Organization, Information Processing and Retrieval Theory, Delhi: BR, 2003.
2. Chowdhury, G. G. (2010). Introduction to modern information retrieval. 3rd ed. London, Facet Publishing.
3. Bhagwatiben Govindbhai Prajapati: Library Cataloguing, Discovery Publishing House Pvt LTD, New Delhi, 2013.

Web Resources:

1. <http://krishikosh.egranth.ac.in/bitstream/1/20325/1/46129.pdf>
2. https://en.wikipedia.org/wiki/Library_catalog
3. https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_sciences/knowledge_organization_and_processing_cataloguing/02_technical_processing/et/4475_et_m2.pdf

Course outcomes

On successful completion of the course,

CO1: To familiarize how to prepare catalogue the document using cataloguing codes.

CO2: To enable the students the assign standard subject heading using printed subject heading lists.

CO3: To learn how to organize the documents (book& non print materials).

CO4: To attain the capabilities for retrieving the documents using catalogue.

CO5: To make the students aware with the latest developments and trends in the field of cataloguing.

**INFORMATION PROCESSING AND RETRIEVAL – CATALOGUING
PRACTICE - AACR – II and UDC**

COURSE CODE: 18UPLIS1C10
MARKS : 100

HOURS

L	T	P	C

Course objectives

- To help in understanding the rules of bibliographic description and rendering of access points;
- To understand to derive subject headings by using different subject headings
- To learn cataloguing the document according to AACR II

Text & References:

1. Lal, C and Kumar, K. (2006). Practical cataloguing AACR 2, New Delhi, Ess Ess Publications.
2. Mohd.Sabir Hussain and Jamal Ahmad Siddiqui, (2018) Practical Cataloguing with AACR II, New Delhi, Ess Ess Publications.

Web Resources:

1. https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_s_cience/knowledge_organization_and_processing_-_cataloguing/02.technical_processing/et/4475_et_m2.pdf
2. <http://egyankosh.ac.in/handle/123456789/33027>
3. <http://downloads.alcts.ala.org/ccda/docs/magert8.pdf>

Course Outcomes

On successful completion of the course,

CO1: Learn the cataloguing code and classification scheme.

CO2: Prepare the catalogue entries for print and non - print materials using AACR II.

CO3: To know various forms of Catalogue.

CO4: Create a library catalogue according to the norms of AACR-II in machine readable format.

CO5: To make the students familiar with Online Public Access Catalogue (OPAC)

Preparation of Catalogue entries for Books and Serials using AACR- II Rev. (2008) and Subject Cataloguing using Sears' List of Subject Headings.

Preparation of Catalogue entries for Books and Serials using UDC (2008).

HUMAN RIGHTS

COURSE CODE: 09PHR01
MARKS : 100

HOURS:	L	T	P	C

Course objective

- To learn the human rights and responsibilities.
- To understand various human right organizations and their role.

Course outcome

On successful completion of the course, students will

- To understand the historical growth of the idea of human rights
- To analyse concepts and policies of human rights.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Meaning and Definitions of Human Rights – Historical Evolution of Human Rights – Formation of UNO, Universal Declaration of Human Rights 1948 – Constitutional Provision for Protection of Human Rights – Fundamental Rights and Directive Principles of State Policy – Fundamental Duties and Human Rights Education.	
II	Civil, Political and Economic Rights	Right to Work – Right to Personal Freedom – Right to Freedom of Expression – Right to Property – Right to Education – Right to Equality – Right to Religion – Right to Form Association and Unions – Right to Movement – Right to Family – Right to Contract – Right to Constitutional Remedies – Right to Vote and Contest in Elections – Right to Hold Public Offices – Right to Information – Right to Criticize the Govt. – Right to Democratic Governance. Right to Work – Right to Adequate Wages – Right to Reasonable Hours of Work – Right to Fair Working Conditions – Right to Self Govt. in Industry – Customer Rights – Social and Cultural Rights – Rights to Life – Right to Clean Environment.	

III	Human Rights Activities in India	Human Rights Act 1993 – Structure and Functions of National Human Rights Commission – State Human Rights Commission and Human Rights Courts – Rules and regulations of state human rights Commission 1997.	
IV	Human Rights Movements for Social Development	Indian Freedom Movement – Peasant Movement – Women’s movement – SC/ST Movements – Environment Movement.	
V	Human Rights Violation	Violation of Rights among Children, Women, Minorities, SCs and STs, HIV/AIDS Patients, Trans-genders, Convicts and Prisoners, Slavery and Disabled, Provision of constitutional rights during the arrest.	

SEMESTER - III

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C11: Information Retrieval System	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Understand the creation of IR System.												
CO2: To identify thesaurus applications in new indexing environments such as subject gateways, portals, and digital libraries.												
CO3: To learn the develop skills of information search strategies how to implement the library services.												
CO4: To retrieve documents precisely by using different search strategies.												
CO5: Analyze and evaluate different types of IR systems in terms of their interfaces, performance, and other components.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C12: methodology	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To learn about the research methods, statistical techniques and their application in LIS.												
CO2: To ascertain research support tools and research communication process												
CO3: To learn various tools for data collection and data analysis.												
CO4: To learn how to write the research report.												
CO5: To understand of research necessary for careers as information professionals at par with global level.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C13: Knowledge Management	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To equip with the applications of Knowledge Management in different Libraries.												
CO2: To enable student to systematically identify, acquire, store, analysis, distribute and reuse knowledge's from all sources.												
CO3: To demonstrates and understanding of different types of knowledge assets.												
CO4: Able to apply KM tools												
CO5: To learn issues related to information and knowledge management infrastructure.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C14: Identify preservation and Conservation of Library resources	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To understand the importance of preservation in libraries												
CO2: To identify appropriate methods for preservation												
CO3: To familiar the various methods of preservation.												
CO4: To know various archival centers and their functions in India.												
CO5: To learn the methods followed in preservation of materials and conservation resource for future reference.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C15: Library Automation And Digital Library (Practice)	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students will comprehend major emerging technology concepts and theories, and understand how they are relevant to library services.												
CO2: To be familiar with the technologies for storing, delivering and disseminating digital materials in networked environment.												
CO3: To identify and evaluate the digital libraries and the implications for design and evaluation.												
CO4: Students will gain an understanding about the current and potential uses of these new and emerging Web technologies in libraries.												
CO5: To make the students aware of latest developments and trends in the field of ICT.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C16: Internship – 3 Weeks	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To acquire skills of managing various sections in library.												
CO2: To acquire knowledge of various records management in library.												
CO3: To develop and manage collections of information resources.												

SEMESTER III

INFORMATION RETRIEVAL SYSTEM

COURSE CODE: 18UPLIS1C11

MARKS : 100

HOURS

L	T	P	C

Course objectives

- To know the basic concepts of IRS.
- To understand the concept of thesaurus and vocabulary control.
- To know the various subject indexing and searching techniques.
- To know the information retrieval models.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	IR Systems - meaning, purpose, functions, kinds; indexing - Meaning, Purpose and Need.	
II	Indexing Languages and Vocabulary Control	Vocabulary control – Meaning and importance; Controlled vs. Free text Indexing; Vocabulary control tools – Subject heading Lists, Thesauri, Thesaurus construction techniques.	
III	Digital IR Systems	Web IR: Meaning scope & characteristics, Types - On-line IR, Optical-disk based IR, OPAC and Web IR Search engines, Meta search engines, Subject Gateways, Institutional Repositories;	
IV	Searching Techniques	Search Techniques and Models: Search strategies, Boolean Search, Proximity Search, Truncation; Retrieval Models - Cognitive, Probabilistic; Retrospective Search Services.	
V	Evaluation and Trends	IR Evaluation – Criteria, Cost effectiveness, Cost benefit evaluation, Overview of the MEDLARS; Recent trends in IR.	

Texts & Reference Books:

1. Chowdhury (G.G.): An introduction to modern information retrieval. 3rd ed. London: Facet, 2010.
2. Christopher D. Manning, Prabhakar Rayhavan and Hinrich Schutze, Introduction to information Retrieval, Cambridge University Press, 2008.
3. Carol Peters, Martin Braschler, Paul Clough (2012). Multilingual Information Retrieval: From Research To Practice, Heidelberg: Springer
4. Kumar: Information Analysis, Repackaging, Consolidation and Information Retrieval; paper X and XI of UGC Model Curriculum, B R Publishing Corporation.

Web Resources:

1. www.ijnjlt.com
2. <https://www.cse.iitk.ac.in/users/nsrivast/HCC/search%20engines.pdf>
3. https://upload.wikimedia.org/wikipedia/commons/1/17/Evaluation_of_information_retrieval_system_purpose_and_retrieval.pdf

Course outcomes

On successful completion of the course,

CO1: Understand the creation of IR System.

CO2: To identify thesaurus applications in new indexing environments such as subject gateways, portals, and digital libraries.

CO3: To learn the develop skills of information search strategies how to implement the library services.

CO4: To retrieve documents precisely by using different search strategies

CO5: Analyze and evaluate different types of IR systems in terms of their interfaces, performance, and other components.

RESEARCH METHODOLOGY

COURSE CODE: 18UPLIS1C12

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To understand the concepts related to research and types of research.
- To identify the overall process of research design.
- To know various tools for data collection, data analysis and skills required for report writing.
- To help in identifying research information sources in LIS
- To explore the trends of LIS research in India and abroad

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction to Research Methodology	Research: Meaning - Types of Research: Fundamental, Applied, Action and Inter Disciplinary Research - Process of Research - Area of research in Library and Information Science; Research Ethics.	
II	Research Design	Identification, Selection and Formulation of a Research Problem, Characteristics of research problem, sources of information; Hypothesis: Definition and types, testing hypothesis; Literature Search and Review of Literature.	
III	Research Methods	Scientific, Historical, Descriptive, Survey, Observation, Experimental, Case-Study, Delphi and Interview method.	
IV	Tools for data collection and Metric studies	Questionnaire, Interview, Observation, Library records, Reports their advantages and disadvantages; Sampling: Types of sampling-random and purposive sampling, systematic sampling, cluster and multiphase sampling. Techniques – Bibliometrics, Scientometrics, Informetrics and Webometrics.	
V	Data Analysis and Report writing	Editing, Coding and De-Coding, Tabulation; Application of Statistical Packages: Measures of central tendency, Correlation, Regression, Chi Square Test; Report writing: Style Manuals: Modern Language Association (MLA) – American Psychological Association (APA) -Chicago Style Manual- Presentation of data.	

Texts & Reference Books:

1. Kothari, C. R. Research Methodology – Methods & Techniques. New Delhi, New Age, 2014.
2. Panda, B. D. Research Methodology for Library Science: with Statistical Methods and Bibliometrics New Delhi; Anmol, 1997.
3. Bhattacharyya, D K., Research Methodology. New Delhi: Excel Books India, 2009.
4. Singh, Y. K: Research Methodology, New Delhi: APH Publishing, 2010.
5. Gopikuttan, A., Research @ library and information science, ESS ESS Publications, 2011.

Web Resources:

1. https://www.youtube.com/watch?v=IZLn9_PA_4s
2. https://en.wikibooks.org/wiki/Research_Methods/Types_of_Research

Course outcomes

On successful completion of the course,

CO1: To learn about the research methods, statistical techniques and their application in LIS.

CO2: To ascertain research support tools and research communication process

CO3: Learn various tools for data collection and data analysis.

CO4: Learn how to write the research report.

CO5: Understanding of research necessary for careers as information professionals at par with global level.

KNOWLEDGE MANAGEMENT

COURSE CODE: 18UPLIS1C13

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To learn basic concepts and applications in Knowledge Management
- To study the various tools of Knowledge Management

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Basic Concepts	Knowledge Management: Concept – Need – Understanding Knowledge; Types of knowledge – Changing role of library and Information professionals.	
II	Knowledge Creation	Knowledge creation and capturing, knowledge creation model – Expert System	
III	Knowledge Organisation	Knowledge codification and organization: Knowledge Mapping, decision trees, decision tables etc.	
IV	Knowledge Management – Tools	Tools and Technologies for Knowledge Management– SharePoint, Technical Writing – Legal and ethical issues in Knowledge Management	
V	Knowledge Management – Concepts	Knowledge Management Practices in Academic, special, Corporate and Research Libraries, Artificial Intelligence, and Virtual Reality, Case Studies.	

Texts & References:

1. Awad, E.M & G.H.M – Knowledge Management, Second Edition, PHI, New Delhi, 2013.
2. Dalkir, Kimiz, Knowledge Management, Second Edition, PHI, New Delhi, 2013.
3. Birkowitz, W.R. Knowledge Management. PHI, New Delhi, 2000.
4. Mishra, J.K. (2009) Knowledge Management: Complexity, Learning and Sustainable Innovation. Coronet Books. Springer, Newyork, 2005.
5. Mohammad Nazim and Bhaskar Mukherjee (2016) Knowledge Management in Libraries Concepts, Tools and Approaches, Imprint of Elsevier.
6. Valerie Forrestal and Ellyssa Kroski (2015) Knowledge Management for Libraries, Rowman & Littlefield.
7. Jennex Murray E., (2005) Case Studies in Knowledge Management, Idea Group.

Web Resources:

<https://www.classcentral.com/course/swayam-knowledge-management-7954>

Course outcomes

On successful completion of the course,

- CO1:** Students will be equipped with the applications of Knowledge Management in different Libraries.
- CO2:** To enable the students to systematically identify, acquire, store, analysis, distribute and reuse knowledge from all sources.
- CO3:** To demonstrate different types of knowledge assets.
- CO4:** Able to apply KM tools
- CO5:** To learn issues related to information and knowledge management infrastructure.

PRESERVATION AND CONSERVATION OF LIBRARY RESOURCES

COURSE CODE: 18UPLIS1C14

HOURS

MARKS : 100

L	T	P	C

Course Objectives

1. To understand concept in preservation and conservation of library materials.
2. To understand traditional methods preservation
3. To understand issues in digital preservation
4. To study the structure and functions of Archives

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Basic Concepts	Preservation and Conservation – Meaning, Need and Importance – Hazards to Information materials – Environmental factors – Biological factors- Chemical factors – Other factors	
II	Evolution of Information materials	Clay tables to Electronic form; Durable and Nondurable and Perishable and non-perishable writing materials – Preservation in Ancient Times – Preservation of palm Leaves and Leather Bound materials	
III	Methods of Preservation and Conservation	Physical methods – Preservation and Conservation of Library Building, Mending, Restoration & Guarding; Lamination, Leaf casting, Encapsulation – Chemical methods; Fumigation; De-acidification	
IV	Digital Preservation	Preservation of Non-print materials- Use of Micrography and Reprography as a means of Preservation – Digital Preservation – Strategies, Methods of Challenges	
V	Genesis of Archival Centers	Archives – Structure and Functions of Tamil Nadu Archives and National Archives of India	

Text & References:

1. P.K.Mahapatra and B.Chakrabarti. Preservation in Libraries: Perspectives, Principles and Practices Ess Ess Publications, New Delhi, 2003
2. L.S.Ramaiah and G.Sujatha. Preservation of Library Archival and Digital Documents Ess Ess Publications, New Delhi, 2008
3. Jyoti Misra: Conservation and Preservation Techniques: A Hand book for Librarians, New Royal Book Company, Lucknow, 2010

Web Resources:

1. https://shodhganga.inflibnet.ac.in/bitstream/10603/96470/11/11_chapter%203.pdf
2. <http://ir.inflibnet.ac.in/bitstream/1944/1466/1/8.pdf>
3. https://en.wikipedia.org/wiki/National_Archives_of_India
4. <https://www.colorado.edu/libraries/sites/default/files/attached-files/preservationlinks.pdf>

Course outcomes

CO1: Understand the importance of preservation in libraries

CO2: To Identify appropriate methods for preservation

CO3: To familiar the various methods of preservation.

CO4: To know various archival centers and their functions in India.

CO5: Preservation of materials and conservation resource for future reference.

LIBRARY AUTOMATION AND DIGITAL LIBRARY (Practice)

COURSE CODE: 18UPLIS1C15

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To provide practical knowledge related to Library Automation and Digital Library
- To introduce standards and software related to digital library systems
- To explore the applications of software and standards in developing digital library systems
- To give hands on training – Library automation software and Digital library software's.

Hands-on Training:

1: Library Automation Software's: WINISIS, LIBSYS, KOHA and SOUL.

2: Digital Library Software Packages: Greenstone and D-space

3: Web Technologies: Weblog; Website; Mobile Applications

Course outcome

On successful completion of the course,

- CO1:** Students will comprehend major emerging technology concepts and theories, and understand how they are relevant to library services.
- CO2:** Become familiar with the technologies for storing, delivering and disseminating digital materials in networked environment
- CO3:** Identify and evaluate the digital libraries and the implications for design and evaluation.
- CO4:** Students will gain an understanding about the current and potential uses of these new and emerging Web technologies in libraries.
- CO5:** To make the students aware with the latest developments and trends in the field of ICT.

INTERNSHIP – 3 WEEKS

COURSE CODE: 18UPLIS1C16

Course objectives

- To enhance their skills and knowledge in a specific area of information service
- To train them to enhance their efficiency for managing all sections in library
- To train them to adopt to the existing working conditions in the library

Course outcomes

On successful completion of the course, Acquire skills of managing various sections in library.

- Acquire knowledge of various records management in library.
- Develop and manage collections of information resources.

Internship is a training program that combines learning new library skills outside the classroom and the demonstration skill. The duration of the internship will be **three weeks**.

Leave Norms:

1. During the course one casual leave permitted.
2. If they take more than a one CL he / she should compensate the same by local library.

SEMESTER - IV

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1C19: Multimedia Tools (Practical)	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students can identify the techniques and tools for creating and editing the interactive multimedia applications.												
CO2: They can create and edit audio, video, text, images and graphics.												
CO3: Acquire skills on using various multimedia tools pertaining to LIS.												

SEMESTER IV

MULTIMEDIA TOOLS (Practical)

COURSE CODE: 18UPLIS1C19

HOURS

MARKS : 100

L	T	P	C

Apply techniques from human-computer interaction, systems analysis, programming, and database design to analyze user needs and information systems in social and organizational settings, develop innovative solutions to address information, technology, and services problems and challenges

Course objective

- To identify and learn various Multimedia tools
- To understand various Multimedia file formats
- To discuss the hardware and Software requirement of multimedia system.

Course outcome

On successful completion of the course,

CO1: Students can identify the techniques and tools for creating and editing the interactive multimedia applications.

CO2: They can create and edit audio, video, text, images and graphics.

CO3: Acquire skills on using various multimedia tools pertaining to LIS.

Hands on Training

- Speech synthesis and recognition
- YouTube
- Webinars
- Mobile Apps
- RSS aggregator
- Podcasting
- NPTEL

ELECTIVE COURSES

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E01: Marketing Of Information Products And Services	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Acquire marketing skills of information products and services.												
CO2: They gain the knowledge of pricing of information.												
CO3: Gain knowledge regarding the Role of Information Industries.												
CO4: Develop the skills set in marketing of information products and services matching user needs.												
CO5: Attain the skills of information products and marketing based on user demands.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E02: Library Networks, Consortia And Resource Sharing	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students familiar with consortia in different levels and subjects.												
CO2: Attain knowledge of Library Networks.												
CO3: Enable the students obtained knowledge about online databases, and resource sharing.												
CO4: Gain knowledge in resource sharing techniques and procedures.												
CO5: To make the students aware with the latest developments and trends in the field of Resource sharing												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E03: Electronic Information Resources	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To familiar with the variety of electronic information sources.												
CO2: Gain knowledge about various reference and bibliographical sources.												
CO3: Trained to use web-based electronic information sources found through search engines.												
CO4: Students could identify databases/resources relevant to their major field of study												
CO5: Ability to analyze and Evaluate Electronic Information sources.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E04: Public Library System And Service	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students will be familiar with the Public Library System and its role in society development.												
CO2: Understand the librarians' professional ethics, qualities and role in society at different levels.												
CO3: Learn the need for library legislation, and functioning public library system.												
CO4: To understand resources and services in broaden diverse perspective.												
CO5: To understand status of public library in other countries.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E05: Bibliometrics	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To gain knowledge about citation index and citation database.												
CO2: To gain knowledge of various laws of Bibliometrics.												
CO3: Learnt various software's related to Bibliometrics data analysis.												
CO4: Gain the knowledge about bibliographical databases.												
CO5: To learn about the research methods, statistical techniques and their application in metric studies.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E06: User Education and Communication	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Students can identify suitable methods and technology for conducting user education.												
CO2: Students will be capable to take up User survey and to conduct Information Literacy programmes.												
CO3: To demonstrates and understanding of different types and models of Information Literacy.												
CO4: To evaluate the effectiveness of user education programme.												
CO5: Students familiar with the methods of conducting User education.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E07: Digital Content Management Systems	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To learn popular open source content management systems – Drupal and Joomla.												
CO2: To familiar with various tools for creating CMS.												
CO3: Create and deploy websites using CMS.												
CO4: Develop competence in using various Web 2.0 technologies												
CO5: Students learn experience and practice of corporate and special library in CMS.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E08: Special Library and Information Systems	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To study the various National & International information systems.												
CO2: To know features of information sources, institutions, and information systems												
CO3: To train students with the practical skills for preparation of SLIS products												
CO4: To impart to students thorough understanding of the study of information users and their needs.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E09: Intellectual Property Rights	1	2	3	4	5	6	7	8	9	10	11	12
CO1: Acquire knowledge about the fundamentals of IPR, Copyrights and Right to Information ACT, National and International IPR Organizations such as IPO and WIPO.												
CO2: Gain the knowledge about the Forms of IPR: Patents, Designs, Trademarks.												
CO3: Attain the information of Knowledge Commission and Right to Information Act and features of Copyright Act.												
CO4: Develop awareness about copyright violations, Plagiarism and their legal impact.												
CO5: Learn knowledge how to create different kinds of copyright forms for their own property.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1E10: Academic Library System	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To perform basic managerial functions, including planning, budgeting, and evaluation of ALS.												
CO2: Use of recent management techniques and tool for improving the academic library Services.												
CO3: They familiarize with various resources of Academic Libraries.												
CO4: Acquire skills and knowledge pertaining Academic Library environment.												
CO5: Create a network of academic libraries and Share the resources through the network.												

ELECTIVE COURSES

MARKETING OF INFORMATION PRODUCTS AND SERVICES

COURSE CODE: 18UPLIS1E01

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To understand the value of information as an economic resource and its management
- To learn the marketing strategies of information products and services.
- To understand the common problem faced by the users to access the information Product & services

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Information as a Commodity and Resource: Economics of Information – Marketing Concepts, Need, Scope– Marketing Strategies – Marketing in LIS.	
II	Portfolio Management	BCG Matrix Model – Product Market Mix – Product Life – Cyle – Pricing Information– Competition Analysis	
III	Marketing Mix	Kotler’s Four C’s – McCarthy’s Four P’s.	
IV	Marketing Plan and Research	Market Segmentation and Targeting – Geographic and Demographic Segmentation – Behavioral Segmentation – User Behaviour and Adoption – Marketing Advertisement.	
V	Information Industry	Information and Publishing Industries – National and International – Online Marketing, Marketing of Information Products and Services	

Texts & Reference Books:

1. Mah – E – Bushra Asghar and Rubina Bhatti, Marketing of library and Information services and products, Lambert Academic Publishing, 2012.
2. Hare Ram Singh, E-Marketing, Anmol Publications Pvt. Ltd., New Delhi, 2011
3. Bahuguna, Pallavi, International Marketing, Anmol Publications Pvt. Ltd., New Delhi, 2011.
4. Philip T. Kotler, Principles of Marketing, Pearson Publications, Gary Armstrong, University of North Carolina, 2016.

Web Resources:

1. https://en.wikipedia.org/wiki/Marketing_mix
2. https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/information_sources,_systems_and_services/26._international_information_systems_programs_/et/1941_et_et.pdf

Course outcomes

On successful completion of the course,

CO1: Acquire marketing skills of information products and services.

CO2: They gained the knowledge of pricing of information.

CO3: Gained knowledge regarding the Role of Information Industries

CO4: Developed the skills set in marketing of information products and services matching user needs.

CO5: Attained the skills of information products and marketing based on user demands

LIBRARY NETWORKS, CONSORTIA AND RESOURCE SHARING

COURSE CODE: 18UPLIS1E02
MARKS : 100

HOURS

L	T	P	C

Course objectives

- To learn need, purpose and methods of resource sharing.
- To familiarize various library networks and Consortia.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Resource Sharing: Meaning, Definition, Need, Advantages and Barriers; Collection Policy and Evaluation of e-resources; Resource Sharing through Networks.	
II	Library Networks (National)	Definition, Need, Library Networks in India: MYLIBNET, CALIBNET, DELNET, BONET, PUNENET, MALIBNET, HYLIBNET, NICNET, ERNET, INFLIBNET and BTISNET etc.	
III	Library Networks (International)	Library Networks at International Level: OCLC, CURL, JANET, CALIS and AARLIN	
IV	Consortium	Meaning, Kinds of Consortia, Services offered by Consortia, Advantages and disadvantages of Consortia.	
V	Consortia (National & International)	National: UGC-ESS, MCIT Library Consortium and ICARNET; and International context in Consortium, ICOLC.	

Text & References:

1. Pravin D.Gahale, (2013). Library Network and Digital library, Garima Prakashan, Kanpur.

Web Resources:

1. http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/academic_libraries/15-b_library_networks_and_consortia_in_india/et/4439_et_15-b.pdf
2. Patil, Y.M. and Savanur, K.P.(2006). Consortium Approach to E- Resource Sharing- A Case Study.[http://eprints.rclis.org/archive/00009070/01/AFITA\(Preprint\).pdf](http://eprints.rclis.org/archive/00009070/01/AFITA(Preprint).pdf)
3. <http://infolibrarian.com/asso.html>
4. <http://www.lisbdnet.com/library-consortia-mdg/>

Course outcomes

On successful completion of the course,

CO1: Students familiar with consortia in different levels and subjects.

CO2: Attained knowledge of Library Networks.

CO3: Enable the students obtained knowledge about online databases, and resource sharing.

CO4: Gained knowledge in resource sharing techniques and procedures.

CO5: To make the students aware with the latest developments and trends in the field of Resource sharing

ELECTRONIC INFORMATION RESOURCES

COURSE CODE: 18UPLIS1E03

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To help in understanding the types and scopes of Electronic information sources;
- To know features and different forms of information sources
- To know the process of retrieving databases and on-line /web information resources in network environment.
- To describe how to evaluate different electronic information sources

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Types of Electronic Information resources – Electronic Documentary – characteristics – Scope. Primary, Secondary and Tertiary sources	
II	Types of reference sources	Electronic Ready Reference Sources –Types and value - Electronic Dictionaries, Electronic Encyclopedias, Electronic Biographical sources, Electronic Handbooks and Manuals.	
III	Bibliographical Source	Electronic Bibliographical sources – Electronic Citation Sources, list of serials; Union Catalogues; – Indexing and abstracting sources, news summaries.	
IV	Web resources	Digital Resources: E-Books, E-Journals, Databases and ETD, – Subject Gateways; Web Portals	
V	Evaluation of resources	Evaluation of Electronic Information sources – Print Reference sources; Web Resources	

Text & References:

1. Chavare, S. R. (2002). Co-Operation For Resource Sharing: Initiatives, Models and Techniques, Workshop on Information Resource Management 13th-15th March, DRTC, Bangalore, Paper: BB
2. Kaula, P.N. Towards resource sharing in libraries. Planning in library resource sharing. Edited by A.S. Chandel & Veena Saraf. Lucknow: Print House: 1-15
3. Roshan, Raina. Library resource sharing and networking: An approach among management schools in India, Vikas Pub. House

Web Resources:

1. <https://www.ifla.org/files/assets/acquisition-collection/development/publications/electronic-resource-guide-2012.pdf>
2. http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/information_sources,_systems_and_services/04._reference_sources__use__and__evaluation_criteria,_e-information_sources/et/1916_et_et.pdf
3. <http://egyankosh.ac.in/bitstream/123456789/25606/1/Unit-2.pdf>
4. http://eprints.rclis.org/7462/1/National_Knowledge_Commission_Overview.pdf
5. <https://www.inflibnet.ac.in/>

Course outcomes

On successful completion of the course,

- CO1:** To familiar with the variety of electronic information sources.
CO2: Gained knowledge about various reference and bibliographical sources.
CO3: Tend to use web-based electronic information sources found through search engines.
CO4: Students could identify databases/resources relevant to their major field of study.
CO5: Ability to analyze and Evaluate Electronic Information sources.

PUBLIC LIBRARY SYSTEM AND SERVICE

COURSE CODE: 18UPLIS1E04

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To provide basic concepts related to public library system and services
- To introduce resources and standards related to public library system
- To describe the roles and responsibilities of the public library in serving diversified communities.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Fundamental	Public Library: Basic Concepts – Public Library: Origin and Growth – Public Library and Society – Agencies in the Promotion and Development of Public Library System – National Library Policy and Library Legislation	
II	Resource Mobilizing	Public Library System: Resource Development – Development Plans and Resource Mobilization – Financial Resources – Physical and Documentary Resources – Human Resources	
III	Administration of PL	Management of Public Library System – Organisational Structure of Public Library System – Planning and Administration of Public Libraries – Public Library Norms, Standards and Guidelines – Governance of Public Libraries – Performance Evaluation	
IV	Services	Public Library Services – Types of Library Services – Application of Information Technology in Public Library Services	
V	PL Genesis	Public Library Scenario in India, UK, USA and Canada	

Text & References:

1. Srivastva, A.K. (2013). Public Library System and Services, Creon Publications, New Delhi
2. Ajaykumar Raval. (2013). Hand book of Public Library System, New Delhi, Discovery Publishing house pvt Ltd.
3. Dhiman, Anil K. & Yashoda Rani . Learn Library and Society. New Delhi: Ess Ess Publication.2005
4. Isaac, K. A. Library legislation in India: A critical and comparative study of state library Acts. New Delhi: Ess Ess Publication, 2000
5. American library Association. Minimum standards for public library systems. Chicago: ALA.

Web Resources:

- 1.<http://egyankosh.ac.in/handle/123456789/11387>
- 2.<https://www.ifla.org/files/assets/hq/publications/archive/the-public-library-service/publ97.pdf>

Course outcomes

On successful completion of the course,

- CO1:** Students will be familiar with the Public Library System and its role in society development.
- CO2:** Understand the librarians' professional ethics, qualities and role in society at different levels.
- CO3:** Learn the need for library legislation, and functioning public library system.
- CO4:** To understand resources and services in broaden diverse perspective.
- CO5:** To understand status of public library in other countries.

BIBLOMETRICS

COURSE CODE: 18UPLIS1E05

HOUR

MARKS : 100

L	T	P	C

Course Objectives

- To provide basic concepts related to application of quantitative techniques in LIS;
- To help in understanding laws, indicators, techniques, tools and services related to bibliometrics, informetrics, webometrics and altmetrics
- To study publication indicators, citations, impact factors, hindex.
- To explore the future applications of Bibliometrics
- To study the tools and techniques in LIS research

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Inroduction	Meaning, Features, Bibliometrics, Librametrics, Scientometrics, Informetrics, Webometrics, Cyber metrics and Altmetrics	
II	Laws and Indicators	Laws and Application of Bibliometrics, Other Empirical Laws of Price, Garfield, Sengupta, etc	
III	Citation Analysis	Techniques Citation, Co-word, Co-Citation, Network analysis, collaboration, Bibliographic Coupling, Impact Factor, h-index, half-life, and g-index.	
IV	Bibliometrics tools	Bibliometric tools: Web of Science, SCOPUS, MEDLINE Google Scholar, Pop, and EBSCHO. Hiscite, VOS Viewer, and Bibexcel	
V	Application of Research	Application of Quantitative and Qualitative tools and techniques in LIS Research	

Text & References:

1. Rafael Ball : An introduction to Bibliometrics 1 st Ed Chandos Publishing 2017.
2. Srivastava.R : Bibliometrics: New Dimensions and latest trends, Alfa publications 2011.
3. Bibhu Prasad Panda: A Model Bibliometric study, SSDN Publisher & Distributors, New Delhi, 2012
4. Ingwersen, P. (2012). Scientometric indicators and webometrics -- and the poly representation principle information retrieval. New Delhi: Ess Ess Publications

Web Resources:

1. http://eprints.rclis.org/12847/1/Bailon-Moreno,_R_.pdf
2. <https://www.essay.uk.com/free-essays/science/bibliometrics-citation-citation-analysis.php>
3. https://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/informetrics_&_scientometrics/data_sources_and_software_tools_for_bibliometric_studies/et/333_et_m2.pdf

Course outcomes

On successful completion of the course,

CO1: To gained knowledge about citation index and citation database.

CO2: To gained knowledge of various laws of Bibliometrics

CO3: Learnt various software's related to Bibliometrics data analysis.

CO4: Gained the knowledge about bibliographical databases.

CO5: To learn about the research methods, statistical techniques and their application in metric studies.

USER EDUCATION AND COMMUNICATION

COURSE CODE: 18UPLIS1E06

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To learn the concepts of User education and user needs.
- To understand the need, purpose and methods of User education.
- Identify different components of User Education.
- To the methods of digital and online literacy.
- To orient on national and international standard and models of information literacy.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Information Literacy: Meaning, Definition, Need, Importance Historical perspectives of Information literacy. User education on information literacy	
II	Types of IL	Types of Information Literacy, Library Literacy, Technology literacy, Media literacy, Computer and Digital literacy.	
III	IL Models	Information literacy Models and Standards, SCONUL model and Empowering 8 models. B-6, Seven Pillar, ELLIS. Guidelines and standards for Information literacy programs: ALA, IFLA ACRL. Taskforce and forums.	
IV	Role of IL	Information Literacy and higher education, Role of Libraries in Information literacy. Information literacy in India.	
V	Challenges in IL	Information Literacy Competencies, Challenges of Information literacy. Information literacy instructions in different types of Library and Information centers. Trends in Information Literacy.	

Text & References:

1. Lal, C, ed. Information Literacy in the Digital Age. New Delhi: Ess Ess Publication.2008
2. Welsh, Teresa S. & Wright, Melissa S. Information Literacy in the Digital Age: An evidence-based approach. Oxford: Chandos Publishing.2010
3. Grassian, Esther S. & Kaplowitz, Joan R. Information Literacy Instruction: theory and practice. New Delhi: Ess Ess Publication.2013
4. Mukhopadhyay, P. (2004). Community information services through web and CDROM: An open source framework for public libraries in India.

Web Resources:

1. <http://www.drct.isibang.ac.in/xmlui/handle/1849/185>

Course outcomes

On successful completion of the course,

- CO1:** Students can identify suitable methods and technology for conducting user education.
- CO2:** Students will be capable to take up User survey and to conduct Information Literacy programmes.
- CO3:** To demonstrates and understanding of different types and models of Information Literacy.
- CO4:** To evaluate the effectiveness of user education programme.
- CO5:** Students familiar with the methods of conducting User education.

DIGITAL CONTENT MANAGEMENT SYSTEMS

COURSE CODE: 18UPLIS1E07

MARKS : 100

HOURS

L	T	P	C

Course objectives

- To learn the elements of Content Management System (CMS).
- Develop proficiency with the concepts and tools for visual, graphic and user-focused
- Practice and develop critical skills in use and evaluation of media strategy.
- To know the use of software / hardware technologies in developing CMS.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Digital document management, records management, digital asset management. Principles of CMS. CMS Architecture. System and data integration in CMS. Applications. CMS and Community Information Systems.	
II	CMS Software's	Content Management Software Drupal, Joomla, TCP/IP, FTP, SSHD . Web servers: Apache etc.	
III	Tools and techniques	Content Management Tools and techniques: Drupal, Portal, e-learning , Content Management Practice	
IV	Content Organizations	Content Organizations in the Digital Space Indexing and knowledge representation KOS, Ontology and topic maps.	
V	Case studies	Content Management system in Corporate and Special Libraries	

Text & References:

1. Jones, K. M. L., & Farrington, P.-A. (2011). Using WordPress as a library content management system. Chicago, IL: ALA TechSource
2. Introduction to Content Management Systems Drupal.

Web Resources:

1. https://en.wikipedia.org/wiki/Document_management_system
2. <https://www.inflibnet.ac.in/caliber2009/CaliberPDF/23.pdf>
3. <https://www.capterra.com/content-management-software/>
4. [https://www.semanticscholar.org/topic/Ontology-\(information-science\)/3211](https://www.semanticscholar.org/topic/Ontology-(information-science)/3211)
5. <https://www.semanticscholar.org/topic/Topic-Maps/164448>
6. https://www.drupal.org/docs/user_guide/en/index.html

Course outcomes

On successful completion of the course,

CO1: To learn popular open source content management systems – Drupal and Joomla.

CO2: To familiar with various tools for creating CMS.

CO3: Create and deploy websites using CMS.

CO4: Developing competence in using various Web 2.0 technologies

CO5: Students learn experience and practice of corporate and special library in CMS.

SPECIAL LIBRARY AND INFORMATION SYSTEMS

COURSE CODE: 18UPLIS1E08

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To study the various National & International information systems.
- To know features of information sources, institutions, and information systems;
- To train students with the practical skills for preparation of SLIS products.
- To impart to students thorough understanding of the study of information users and their needs.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Special Library: Meaning, Definition, Types, Scope, Function and Objectives, Role and Importance, Evaluation of special libraries.	
II	Genesis of SL	Development of Special Libraries in India, Status of Special Libraries in India, SAARC, BRICS.	
III	Resources and Services	Special Libraries- Funding, Services and Collections, Consortia and Resource in Special Libraries.	
IV	National Information System	Organizations and Functions of Information Systems – NISCAIR – NASSDOC – DESIDOC – SENDOC – National Knowledge Networks.	
V	International Information System	UNISIST – AGRIS – INIS – MEDLARS – INSPEC – BIOSIS – CAS (Chemical Abstract Service) – OCLC.	

Text & Reference Books

1. Krishnan, R.K., Special Library System and Information Services, Anmol Publications Pvt. Ltd., New Delhi, 2013.
2. <http://speciallib.blogspot.in/> accessed on 27th February 2017.
3. Gurdev Singh (2013), Information Sources, Services and Systems, PHI Learning Pvt. Ltd.

Web Resources:

1. <http://www.lisbdnet.com>
2. <http://www.klibjlis.com/1.11.pdf>
3. [http://www.egyankosh.ac.in>bitstream>unit 8](http://www.egyankosh.ac.in/bitstream/unit%208)

Course outcomes

On successful completion of the course,

CO1: To understand role of National and International Information System.

CO2: To learn the growth of Special Libraries across the globe

CO3: To know the sources for collection development

CO4: To identify the role and functions of various information networks

CO5: To learn the services of information system

INTELLECTUAL PROPERTY RIGHTS

COURSE CODE: 18UPLIS1E09

MARKS : 100

HOURS

L	T	P	C

Course objectives

- To make the students aware of IPR and Right of Information access.
- To get knowledge of patents, copy right, and information Technology Act.
- To explore the legislation and IPR issues related to the discipline.
- To know the various National and International IPR Organization.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Intellectual Property Rights – Definition-Need and Purpose- Forms of IPR –IPR in Digital Era- Right to Information – Definition – Need and Purpose	
II	Copyright Law	Copyright Law – Copyright Act-- Need –Violations of the Copyright Law –in Pre- Information Technology – Plagiarism.	
III	Cyber Crimes	Cyber Crimes –Definitions –Types of Cyber Crimes- Protections	
IV	Cyber Laws	Cyber Laws - Copyright status - Digital Information system in Libraries International Status- Implementation	
V	Legislation	Legislation- Control and Supervision-Merits and Demerits-Patents –Standards	

Text & Reference Books:

1. Mahajan, V.D. Jurisprudence and Legal Theory. Eastern Books, New Delhi, 2001
2. Narayan, P.S. Intellectual Property Law in India. Gogia Law Agency, Hyderabad, 2001
3. Sharma, B. Copy right Law in respect of Books. Federation of Indian publishers, New Delhi, 2006
4. Satarkar, S.P Intellectual Property Rights and Copyright, Ess Ess Publications, New, Delhi, 2003.

Web Resources:

1. <https://www.wipo.int/about-ip/en/>
2. <https://www.w3.org/IPR/>

Course outcomes

On successful completion of the course,

- CO1:** Acquired knowledge about the fundamentals of IPR, Copyrights and Right to Information ACT, National and International IPR Organizations such as IPO and WIPO.
- CO2:** Gained the knowledge about the Forms of IPR: Patents, Designs, Trademarks.
- CO3:** Attained the information of Knowledge Commission and Right to Information Act and features of Copyright Act.
- CO4:** Developed awareness about copyright violations, Plagiarism and their legal impact.
- CO5:** Learned knowledge how to create different kinds of copyright forms for their own property.

ACADEMIC LIBRARY SYSTEM

COURSE CODE: 18UPLIS1E10
MARKS : 100

HOURS	L	T	P	C

Course objectives

- To enable the student to understand the functions and purpose of academic library.
- To introduce resources, services and management issues pertaining to academic Libraries.
- To Identify and describe key policy and planning factors and challenges in different Academic library.
- To get a clear idea about the application of new ICT in academic library management.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Academic library and their use	Academic Library: Meaning, Types and Functions, types of user, user needs, Role of UGC, AICTE and other Bodies in Academic Libraries development, NAAC and NBA	
II	Management of Academic Libraries	Collection Development: - Selection of Resources, Nature, Types and Policies. Financial Management of Academic Libraries, Curriculum and Collection Development, Human resource management.	
III	Administration of Academic Libraries	Library Authority and Library Committee – Financial Managment – Allocation of Funds to Academic Libraries, Statistics – Files and Records.	
IV	Resource Sharing	Need and Objectives, Consortia – Types, INFLIBENT - INFONET - INDEST –and its Implications to Library Resource Sharing, Library Networks in India and International, NPTEL.	
V	User education & Future trends	Information Literacy Programme in Academic Libraries – Academic Library Repositories, Future trends in academic library development.	

Texts & Reference Books

1. Krishnan Kumar and Sesh Patel, Libraries and Librarianship in India, New Delhi, Viva Books, 2001.
2. Devarajan, G, Resource Development in Academic Libraries, New Delhi, Ess Ess Publication, 1999.
3. Shri Nath Sahai, Academic Library System, Ess Ess Publications, New Delhi, 2009.
4. Gurudev singh, Academic Library system and services, Ess Ess Publications New delhi,2015

Web Resources:

1. <https://www.ugc.ac.in>
2. <https://www.aicte-india.org/>
3. <https://mciindia.org>
4. <https://naac.gov.in>

Course outcomes

On successful completion of the course,

CO1: To perform basic managerial functions, including planning, budgeting, and evaluation of ALS.

CO2: Use of recent management techniques and tool for improving the academic library Services.

CO3: They familiarize with various resources of Academic Libraries.

CO4: Acquired skills and knowledge pertaining Academic Library environment.

CO5: Create a network of academic libraries and Share the resources through the network.

SUPPORTIVE COURSES

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1S01: Information Resources on STEM	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To understand various types of Information resources on STEM.												
CO2: To Identify and use STEM resources available over the Internet.												
CO3: To develop evaluation and practical skills in dealing with STEM information sources.												
CO4: To familiarize with Digital Information Services. i.e., Institutional Repository, Web OPAC, Online DDS, Citation and Indexing Services.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1S02: Open Educational Resources	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To develop skill on Open Educational Resources.												
CO2: To acquired various Open Educational Resources in different disciplines.												
CO3: Acquire knowledge on open access policy and its impact on academic community.												
CO4: Attain the capabilities of exploring international and national scholarly open access databases.												
CO5: Acquire knowledge about information literacy of scholarly open access information systems at national and international.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1S03: Information Search Strategies And Techniques	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To learn the application of search techniques to various search tools.												
CO2: To develop and execute a research strategy appropriate to the field.												
CO3: To determine the perceived knowledge and navigational skills for searching on internet.												
CO4: To know the different search techniques adopted while searching information on internet.												
CO5: Select the appropriate search tool for the required information in the digital environment.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1S04: Information Sources	1	2	3	4	5	6	7	8	9	10	11	12
CO1: To deeply gained knowledge about information sources (print & electronic).												
CO2: To Determine types and Forms of information sources.												
CO3: To gain knowledge in databases for information sources.												
CO4: Identify and use Internet information sources.												
CO5: To develop evaluation and practical skills in dealing with information sources.												

COURSE OUTCOMES	PROGRAM OUTCOMES											
18UPLIS1S05: E-Resources	1	2	3	4	5	6	7	8	9	10	11	12
CO1: They familiar with the variety of electronic information sources.												
CO2: Gained knowledge about various reference and bibliographical sources as digital and online.												
CO3: Identify and use Internet information sources.												
CO4: To acquaint students to sources of information in new media.												
CO5: Ability to analyze and Evaluate Electronic Information sources.												

SUPPORTIVE COURSES

INFORMATION RESOURCES ON STEM

COURSE CODE: 18UPLIS1S01

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To provide concepts, features, scopes and advantages of STEM resources;
- To study various Information sources on Science, Technology, Engineering and Mathematics (STEM).
- To familiarize various institutional repositories related to STEM.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Information Sources	Science – Natural, Physical Science, Engineering and Technology; Types of Information Sources: Documentary, Non Documentary – Print and Non-Print-Electronic, Primary, Secondary, Tertiary sources, Internet source, Grey Literature.	
II	Ready Reference Source	Types and Value – Dictionaries, Encyclopedias – Biographical – Handbooks and Manuals – Geographical – Abstracting and Indexing sources.	
III	Databases	Journal article Databases: IEEE / IEL Electronic Library / Xplore, ACM, ASME, ASCE, ASTM, Science Direct, ProQuest, EBSCO, IET, Gale Cengage, American Chemical Society, American Institute of Physics, American Mathematical Society, BioMed Central, Wiley Blackwell, DOAJ, NOPR, Royal Society of Chemistry, IndMED.	
IV	Bibliographical Databases	Scopus, Web of Science, Index Copernicus, Google Scholar, Ei Compendex, SciFinder Scholar, MathSciNet, JCCC.	
V	Institutional Repositories	OPEN DOAR, Indian Open Access Repositories (OAJSE)	

Text & Reference Books:

1. Narendra Dodiya. (2015). Information Services, Ess Ess Publications, New Delhi
2. Gurdev, Singh, Information Sources, Services and Systems, Delhi, PHI Learning Private Limited, 2013.
3. Gorman, Digital Features in Information and Library Services, Chennai, Allied Publishers, 2002.

Web Resources:

1. <http://guides.lib.purdue.edu/stemed>
2. <http://paniit.iitd.ac.in/indest/index.php/e-resourc>
3. <https://www.scopus.com/home.uri>
4. <https://apps.webofknowledge.com>
5. <http://www.rsc.org/>
6. <https://doaj.org/>
7. <http://www.openoar.org/>
8. <http://roar.eprints.org/>
9. http://www.oajse.com/rioar_a-z_list.htm

Course outcomes

On successful completion of the course,

- CO1:** To understand various types of Information resources on STEM.
CO2: To Identify and use STEM resources available over the Internet.
CO3: To develop evaluation and practical skills in dealing with STEM information sources.
CO4: To familiarize with Digital Information Services; Institutional Repository, Web OPAC, Online DDS, Citation and Indexing Services.

OPEN EDUCATIONAL RESOURCES

COURSE CODE: 18UPLIS1S02

HOURS

MARKS : 100

L	T	P	C

Course Objectives

- To provide concepts, features, scopes and advantages of open educational resources
- To introduce open access sources, policies and licensing
- To train on the exploration and use of open resources: courseware, full text journals database, ETDs, Patterns, standards and multimedia resources
- To explore the use of open contents in education, research and their integration with library systems

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Concept of Open Educational resources, Types of OER, Difference between Proprietary and Open sources, Contrast between Open and free resources	
II	Databases	E – Journals: DOAJ, OAJSE, India Academy of Science, High wire, NISCAIR Online periodicals repository E-Books: DOAB, Audible Books, Digital Library of India, OER Common project Gutenberg, Utah open Text Book, E – Pustakalaya	
III	Courseware	Sakshat Portal, MIT Course, NPTEL, egyankosh, CEDT, sciGate, khan Academy, MERLOT, NIOS, eGyanKosh	
IV	Institutional Repository	Open DOAR, OAJSE, National Repository of Open Educational Resources (NROER)	
V	Evolution of open educational resources	Development of Open educational resources in India	

Text & References:

1. Chowdhury, G.G. and Chowdhury, Sudatta (2000). Searching CD-ROM and online Informationsources. London: Library Association.
2. Gopinath, M.A. Information sources and communication media (Annual Seminar). Bangalore: DRTC.
3. Mukhopadhyay, P. (2014). Resource description. In UNESCO course on Open Access (Module 4: Interoperability and Retrieval in OA – Unit 1). New Delhi: CEMCA/UNESCO.

Web Resources:

1. <https://www.oercommons.org/>
2. <https://doaj.org/>
3. <http://www.oajse.com/>
4. <http://www.ias.ac.in/>
5. <http://nopr.niscair.res.in/>
6. <http://www.doabooks.org/>
7. <http://www.olenepal.org/e-pustakalaya/>
8. <http://www.sakshat.ac.in/>
9. <http://nptel.ac.in/>
10. <https://www.merlot.org/merlot/inde>

Course outcomes

On successful completion of the course,

- CO1:** To develop skill on Open Educational Resources
CO2: To acquired various Open Educational Resources in different disciplines.
CO3: Acquired knowledge on open access policy and its impact on academic community
CO4: Attained the capabilities of exploring international and national scholarly open access databases
CO5: Acquired knowledge about information literacy of scholarly open access Information systems at national and international

INFORMATION SEARCH STRATEGIES AND TECHNIQUES

COURSE CODE: 18UPLIS1S03

HOURS

MARKS : 100

L	T	P	C

Course objectives

- The types of information searches
- The formulation of search strategies
- The types of search techniques
- The use of search techniques in information retrieval
- The application of search techniques to various search tools

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Fundamental	Information retrieval –Fundamental-Information retrieval system - Quantitative Information - Qualitative Information.	
II	Search tools	Vocabulary control Tools-Thesaurus-Management of Client- Server Technology.	
III	Search strategy	Search strategy –Search Formulation-Search Statement-Citation searching other variations in search tools.	
IV	Search techniques	Search techniques- Boolean logic Truncation- Weighted term logic--Boolean Searching – Sorting techniques.	
V	Information retrieval evaluation	Information retrieval evaluation criteria –Major information retrieval studies- ASLIB Crane field study, MEDLARS-SMART-FAIRS-TREC.	

Text & Reference Books:

1. Salton, G, and McGill, M.J. Introduction to Modern information Retrieval. Magraw Hill, New York, 1986
2. Chowdhury, G.G Introduction to modern Information Retrieval, Facet Publishing, 2009
3. Utpal K. Banerjee Management Strategy for Information Technology, Concept Publishing Company , 2008
4. Korfhage, Robert R. Information storage and retrieval New York: John Wiley & Sons,
5. Salton, G., & McGill, M.J. Introduction to modern information retrieval. New York: McGraw-Hill.
6. Lancaster, F.W. Information Retrieval Systems. New York: John Wiley & Sons, 1979.

Web Resources:

1. <https://uj.ac.za.libguides.com/c.php?g=581225&p=4011505>
2. <https://library.dsu.edu/c.php?g=22496&p=133198>
3. <https://www.iro.umontreal.ca/~nie/IFT6255/IR-Evaluation.pdf>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2000779/>

Course outcomes

On successful completion of the course,

- CO1:** To learn the application of search techniques to various search tools.
- CO2:** To develop and execute a research strategy appropriate to the field.
- CO3:** To determine the perceived knowledge and navigational skills for searching on internet.
- CO4:** To know the different search techniques adopted while searching information on internet.
- CO5:** Select the appropriate search tool for the required information in the digital environment

INFORMATION SOURCES

COURSE CODE: 18UPLIS1S04
MARKS : 100

HOURS

L	T	P	C

Course Objectives

- To understand the types and scopes of information sources
- To know Categories of information sources
- To know features of different forms and sources of information
- To understand internet information sources
- To know the process of retrieving databases and on-line /web information resources in network environment.

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Types of Information Sources	Information Sources: features, Documentary Sources: Primary, Secondary and Tertiary and Institutional documents.	
II	Formats of Information Source	Print and Digital information sources, Evaluation of Information Sources	
III	Sources of Information	Reference sources, Bibliographic sources, Geographical sources, Citation sources.	
IV	Databases	E- Resources – Databases – Commercial – Open – DOAJ	
V	Institutional Repositories	Open access resources – Institutional Repositories.	

Text & Reference Books:

1. Krishan Kumar, (2009). Reference Services, Vikas Publishing house, 5th edition
2. Sharma, J.S & Grover, D.R : Reference Service and Sources of Information, New Delhi: EssEss, 1998.
3. Gurdev Singh: Information Sources and Services, Phi learning, 1st Ed 2013.

Web Resources:

1. <http://epgp.inflibnet.ac.in>
2. [Shodhgangotri.inflibnet.ac.in>jspui>bitstream>02-introduction](http://Shodhgangotri.inflibnet.ac.in/jspui/bitstream/02-introduction)
3. [www.lisbdnet.com>brief-information-institutional-repository](http://www.lisbdnet.com/brief-information-institutional-repository).

Course Outcomes

On successful completion of the course,

- CO1:** To deeply gained knowledge about information sources (print & electronic).
CO2: To Determine types and Forms of information sources.
CO3: To gained knowledge in databases for information sources.
CO4: Identify and use Internet information sources.
CO5: To develop evaluation and practical skills in dealing with information sources.

E - RESOURCES

COURSE CODE: 18UPLIS1S05

HOURS

MARKS : 100

L	T	P	C

Course objectives

- To learn the nature, features and limitations of E – resources.
- To know the different forms of information E-resources
- To know the retrieval and support tools in organizing and dissemination of E – resources.
- To describe how to evaluate different electronic information sources

Syllabus

Unit	Unit Title	Intended Learning Chapters (K1, K2)	Hours of Instruction
I	Introduction	Types of Electronic Information resources – Electronic Documentary – characteristics – Scope. Primary, Secondary and Tertiary sources.	
II	Types of reference sources	Electronic Ready Reference Sources –Types and value- Electronic Dictionaries, Electronic Encyclopedias, Biographical sources, Electronic Handbooks and Manuals.	
III	Bibliographical Source	Electronic Citation Sources, List of serials; Union Catalogues; – Indexing and abstracting sources.	
IV	Web resources	Digital Resources: E-Books, E-Journals, Databases and ETD, – Subject Gateways; Web Portals	
V	Evaluation of resources	Evaluation of Electronic Information sources – Print Reference sources; Web Resources	

Text & References:

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

Web Resources:

1. <https://www.ifla.org/files/assets/acquisition-collection/development/publications/electronic-resource-guide-2012.pdf>
2. http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/library_and_information_science/information_sources,_systems_and_services/04._reference_sources_use_and_evaluation_criteria,_e-information_sources/et/1916_et_et.pdf
3. <https://ess.inflibnet.ac.in/>

Course outcomes

On successful completion of the course,

CO1: They familiar with the variety of electronic information sources.

CO2: Gained knowledge about various reference and bibliographical sources as digital and Online.

CO3: Identify and use Internet information sources.

CO4: To acquaint students to sources of information in new media.

CO5: Ability to analyze and Evaluate Electronic Information sources.