



The University of Burdwan
Department of Library and Information Science
Burdwan – 713 104, West Bengal

MASTER OF LIBRARY AND INFORMATION SCIENCE (M.Lib.I.Sc.)

SYLLABUS
(Choice Based Credit System)

With effect from 2020-2021 academic session

[Revised and Restructuring Syllabus to be effected having academic session : 2020-2021]

Approved in the PGBS meeting held on 18.11.2020

1. Title and Commencement

The programme shall be called the full-time Integrated Master of Library and Information Science (M.Lib.I.Sc.) programme under the Faculty of Arts, Commerce, etc.

This syllabus shall come into force from the academic session 2020-2021.

2. Objectives

The primary objective is to train the students in the basics of professional skills for information / knowledge management, so that they serve the society through an institution of library or information centre.

- To give the students an understanding of the basic principles of Library and Information Science and to enable them to understand, appreciate and develop professionalism to work in contemporary “Information Age”.
- To acquaint the students with the development of the Universe of Knowledge and methods of its organization in a library/information system.
- To train students in the techniques of Information Management and equip them with skills for applying Information Communication Technologies (ICT) in libraries and information centres.
- To make students fully aware of various sources of information and train them in techniques of dissemination of information in the context of different user groups.

3. Duration and Semester System

- The duration of the programme leading to the Degree of Master of Library and Information Science (M.Lib.I.Sc.) shall be two academic years. A student must complete the programme within four years from the date of admission to the programme..
- Each academic year shall be divided into two semesters. The first and third semesters shall ordinarily commence in the month of July of the first and second academic years and the second and the fourth semesters in the month of January of the first and second academic years or on such dates as may be fixed by the University. There shall be a minimum of 16 weeks of teaching in a semester.

3. Academic Calendar

Academic Calendar will be as approved by the University.

4. Eligibility & Admission

- Admission to the Integrated Master of Library and Information Science programme leading to Master of Library and Information Science degree shall be made through Entrance Test conducted by the University. The minimum qualification for appearing in the Entrance Test will be:

Bachelor degree with Honours/Major (in any discipline) following 10+2+3 pattern from the University, or any other university, accepted as equivalent thereto by the Statutory Bodies of the University/norms prescribed by the Regulatory Bodies as applicable subject to such conditions as may be prescribed thereof.

- Reservation rules shall be as prescribed by the State Government and notified by the authorities concerned from time to time.
- Foreign nationals either residing in India or abroad or Indian nationals residing abroad may be admitted to Integrated Master of Library and Information Science programme according to the policy guidelines laid down by the Government of India/University Executive Council from time to time.

5. **Intake:** Thirty (30).

6. Programme Structure

- M.Lib.I.Sc. (Int.) curricula consist of 101 credits distributed in 21 courses in 2 academic years divided into 4 semesters.
- Each credit requires 16 contact hours of teaching for theory or 32 contact hours of teaching for tutorial in a semester.
- A minimum of 75 credits shall have to be earned from Departmental **Core Courses** and shall be Compulsory.
- A minimum of 20 credits shall have to be earned from Departmental **Major Electives**.
- A minimum of 4 credits shall have to be earned from **Inter-disciplinary Electives** offered by other departments/SWAYAM platform as stipulated by the university regulations.
- A minimum of 2 credits shall have to be earned from **Library Community Development Programme (Community Engagement Course)**.
- 4 credits are assigned to Open Courses (**Interdisciplinary Elective**) (coded as LIS-305/A/B/C/D). Students of M.Lib.I.Sc. course are to opt for one **Interdisciplinary Elective** Open Course in third semester from open courses offered by any other department of the University. ***However, students may opt for a 4 credit course from SWAYAM Platform and can avail the option of credit transfer.***
- Students from other departments of this University may opt for the **Interdisciplinary Elective** Open Courses offered by this Department.
- In Semester-III a student shall opt for **Interdisciplinary Electives** of at least 4 credits from the sister departments/ SWAYAM, subject to prior approval of the departmental committee and University Authorities and uniformity of academic calendar.
- In semester IV, one course **LIS-405** entitled '**Guided Research Project**' shall be dealing with applied part of the subject/field survey/Literature survey/Report writing etc (with 50 marks/5 credit). It is a core compulsory course.
- A minimum of 2 credits shall have to be earned from LIS-400 entitled '**Library Community Development Programme**'. In semester IV each student shall have to participate in Community Engagement Course compulsorily from the specified programmes in the syllabus subject to the approval of the DC/PGBS.
- Each course of 5 credits shall have 5-hour session of Lectures per week over a period of one semester of at least 16 weeks for teaching-learning process.

- M.Lib.I.Sc. (Int.) course has a total 1020 marks (50 x 19 Core Courses + 50 x 1 Interdisciplinary Elective Courses + 20 x 1 Community Engagement Course).
- In each course of 50 marks (5 credits/4 credits) the End-semester examination shall be of 40 marks (10 marks Mid-sem examination/Continuous Assessment based on class test, assignment, seminar etc modalities for which are to be decided by the concerned course-in-charge and to be notified to the students at the beginning of the semester). In End-semester, there shall be 8 questions of 10 marks each from which 4 questions are to be answered by the candidates (Time 2 hours).
- In each course of 50 marks (5 credits/4 credits) which has two groups within it the End-semester examination shall be of 40 marks. There shall be 4 questions of 10 marks from each group. Candidates are to answer 4 questions taking 2 from each group. (Time 2 hours).

7. Community Engagement Course (LIS-400: Library Community Development Programme)

The Community Engagement Course entitled '**Library Community Development Programme**' is 2 **credit course** for Two Years Integrated M.Lib.I.Sc Programme.

8. Guidelines for Evaluation Pattern:

- The performance of a candidate in a theoretical course (paper) will be assessed for a maximum of 50 marks as explained below (except the courses LIS-400 and LIS-405 which are discussed below):
 - 40 marks as end-semester examination
 - 10 marks as Continuous Assessment based on class test, assignment, seminar etc, modalities for which are to be decided by the concerned course-in-charge and notified to the students at the beginning of the semester.
- LIS-405 (Guided Research Project): Based on Survey Report, Assignment, Presentation and Viva-Voce.
 - Field survey and project Writing: 40 marks
 - Presentation and Viva-Voce (in the presence of external experts from other Universities/Institutions): 10 marks.
- LIS-400 (Library Community Development Programme): Students have to participate in the Library Community Engagement programmes/ activities of the department for the concerned year and follow it up with a written Report & Presentation and Viva-Voce. The main objectives are to develop an appreciation of rural culture, lifestyle and wisdoms among students, to learn about the states of various agricultural and rural development programmes, to understand causes for rural distress and poverty and explore solutions for the same and to apply class room knowledge of courses to field realities. Evaluation pattern would be as follows:
 - Report writing: 10 marks
 - Presentation and viva-voce: 10 marks (in the presence of external expert(s) from other Departments of the Home University)

9. Question Pattern

Courses with 5 credits

LIS 101, LIS 102, LIS 103, LIS 104, LIS 105 ; LIS 201, LIS 202, LIS 203, LIS 204, LIS 205 ; LIS 301, LIS 302, LIS 303A, LIS 303B, LIS 303C, LIS 303D, LIS 304A, LIS304B, LIS 304C, LIS 304D, LIS 401, LIS 402, LIS 403A, LIS 403B, LIS 403C, LIS 403D, LIS 404A, LIS 404B, LIS 404C, LIS 404D

Courses with 4 credits : LIS 305A, LIS 305B, LIS 305C, LIS 305D ; or course through SWAYAM.

Course with 2 credits : LIS-400

A. In each course of 50 marks (5 credits/4 credits) the End-semester examination shall be of 40 marks (10 marks Mid-sem examination/Continuous Assessment based on class test, assignment, seminar etc modalities for which are to be decided by the concerned course-in-charge and to be notified to the students at the beginning of the semester). In End-semester, there shall be 8 questions of 10 marks each from which 4 questions are to be answered by the candidates (Time 2 hours).

B. In each course of 50 marks (5 credits/4 credits) which has two groups within it the End-semester examination shall be of 40 marks. There shall be 4 questions of 10 marks from each group. Candidates are to answer 4 questions taking 2 from each group. (Time 2 hours).

10. Scope of Employability : This syllabus emphasizes the practical contents for job opportunities in favour of passed out students. The important courses of job opportunities are as follows:

LIS-102 : Knowledge Organization ; LIS-103 : Resource Description; LIS-104 : Library Information Technology; LIS-201: Library System Management; LIS-202: Document Classification; LIS-203:Document Cataloguing; LIS-204:Content Designation and Metadata Encoding; LIS-302: Information Retrieval; LIS-303:Automated Library System; LIS-304:Digital Resource Management; LIS-401:Digital Library System;LIS-405:Guided Research Project; LIS-400 : Library Community Development Programme

11. Credit pattern explanation

L	T	P	
4	2	0	pattern: (4 X 16 wks) = 64 hrs = 4 credits + (2 X 16 wks) = 32 hrs = 1 credit + 0 > Altogether 5 credits
2	0	4	pattern: (2 X 16 wks) = 32 hrs = 2 credits + 0 + (4 X 16 wks) = 64 hrs = 2 credits > Altogether 5 credits
2	2	2	pattern: (2 X 16 wks) = 32 hrs = 2 credits + (2 X 16 wks) = 32 hrs = 1 credit + (2 X 16 wks) = 32 hrs = 1 credit > Altogether 5 credits
0	2	4	pattern: 0 + (2 X 16 wks) = 32 hrs = 2 credits + (4 X 16 wks) = 64 hrs = 4 credits > Altogether 5 credits
0	10	0	pattern: 0 + (10 X 16 wks) = 160 hrs = 5 credits + 0 = Altogether 5 credits
	0	0	2 pattern: 0 + 0 + (2 X 16 wks) = 32 hrs = 2 credits = Altogether 2 credits

Note: L for Lecture, T for tutorial, P for Practical

Each course of 5 credits shall have 5 Lectures of one hour duration per week over a period of one semester of 16 weeks for teaching-learning process. Department will liberty to allocate hours in lecture hours/Tutorial/Practical (Keeping in mind that two tutorials are equivalent to one Lecture hour)

Candidates have to select ONE from 303A/B/C/D and ONE from 304A/B/C/D

For Interdisciplinary Elective course for the students of other departments, candidates have to select ONE from 305A/B/C/D. However, students may opt for a 4 credit course from SWAYAM Platform and can avail the option of credit transfer.

Candidates have to select ONE from 403A/B/C/D and ONE from 404A/B/C/D.

[ME: Major Elective ; IE: Interdisciplinary Elective ; CS: Compulsory]

Course Structure Template of M.Lib.I.Sc

Semester	Course Code	Course Type	Course Status	Marks Distribution (End Sem +Int.Asst)	Credit Value of the Course
I	LIS-101	TH	Core Course	40+10=50	5
	LIS-102	TH	Core Course	40+10=50	5
	LIS-103	TH	Core Course	40+10=50	5
	LIS-104	TH	Core Course	40+10=50	5
	LIS-105	TH	Core Course	40+10=50	5
	Sem-I Total				250
II	LIS-201	TH	Core Course	40+10=50	5
	LIS-202	TH	Core Course	40+10=50	5
	LIS-203	TH	Core Course	40+10=50	5
	LIS-204	TH	Core Course	40+10=50	5
	LIS-205	TH	Core Course	40+10=50	5

	Sem-II Total			250	25
III	LIS-301	TH	Core Course	40+10=50	5
	LIS-302	TH	Core Course	40+10=50	5
	LIS-303 (A/B/C/D)	TH	Major Elective	40+10=50	5
	LIS-304 (A/B/C/D)	TH	Major Elective	40+10=50	5
	LIS-305 (A/B/C/D)	TH	Interdisciplinary Elective	40+10=50	4
	LIS-305 (A/B/C/D)	However, students may opt for a 4 credit course from SWAYAM Platform and can avail the option of credit transfer.			
	Sem-III Total			250	24
IV	LIS-400	PR	Library Community Development Programme (Community Engagement Course)	10+10=20	2
	LIS-401	TH	Core Course	40+10=50	5
	LIS-402	TH	Core Course	40+10=50	5
	LIS-403 (A/B/C/D)	TH	Major Elective	40+10=50	5
	LIS-404 (A/B/C/D)	TH	Major Elective	40+10=50	5
	LIS-405	PR/Project	Core Course	40+10=50	5
	Sem-IV Total			270	27
Program Total				1020	101

In the syllabus 'Paper' shall be designated as 'course'.

The PG syllabus shall have 1020 marks divided into 20 courses of 50 marks each and an additional 20 marks for Library Community Development Programme (Community Engagement Course).

Each course of 50 marks shall be of 5 credits each except the Inter-disciplinary Elective course which shall be of 4 credits and Library Community Development Programme (Community Engagement Course) shall be of 2 credits.

In LIS 305(A/B/C/D), students may opt for a 4 credit course from SWAYAM Platform and can avail the option of credit transfer.

A candidate has to earn at least 101 credits to earn PG degree.

The credits to be earned in various semesters are as follows:

	First Semester	Second Semester	Third Semester	Fourth Semester
Core Courses (Compulsory)	25	25	10	15
				(Including the course on Project)
Major Elective Courses (Departmental)			10	10
Interdisciplinary Elective (Extra-departmental/SWAYAM Platform)			4	
Community Engagement Course (Compulsory)				2
Total	25	25	24	27
Grand Total	101			

Detailed Structure of Syllabus:

Semester	Courses	Remarks
I	LIS-101	Library and Society
	LIS-102	Knowledge Organization
	LIS-103	Resource Description
	LIS-104	Library Information Technology
		All courses are Departmental Core Courses and Compulsory

	LIS-105	Information Sources and Services	
II	LIS-201	Library System Management	All courses are Departmental Core Courses and Compulsory
	LIS-202	Document Classification	
	LIS-203	Document Cataloguing	
	LIS-204	Content Designation and Metadata Encoding	
	LIS-205	Information Systems and Users	
III	LIS-301	Information Communication and Management	Core Course
	LIS-302	Information Retrieval	Core Course
	Major Elective -I		Major Elective -I
	LIS-303A	Automated Library System	Select One
	LIS-303B	Digital Resource Management	
	LIS-303C	Technical Writing	
	LIS-303D	Digital Preservation	
	Major Elective -II		Major Elective -II
	LIS-304A	Neoteric Library Technology	Select One
	LIS-304B	Content Management and Web Products	
	LIS-304C	Library Networking	
	LIS-304D	Learning Content Management System	
	Interdisciplinary Elective		Interdisciplinary Elective
	LIS-305A	Current Trends in LIS	
	LIS-305B	Medical Information Systems and Services	

	LIS-305C	Agricultural Information Systems and Services	Select One
	LIS-305D	LIS Education	
	LIS-400	Library Community Development Programme <i>(30 hours of involvement with at least 50 per cent field work)</i>	Compulsory (Community Engagement Course)
IV	LIS-401	Digital Library System	Core Course
	LIS-402	Research Methodology	Core Course
	Major Elective -III		Major Elective -III
	LIS-403A	Community Information System	Select One
	LIS-403B	Academic Library System	
	LIS-403C	Informetrics	
	LIS-403D	Web Scale Library Discovery Services	
	Major Elective -IV		Major Elective -IV
	LIS-404A	Semantic Digital Repository	Select One
	LIS-404B	Open Access System	
	LIS-404C	Library and Information Profession and Related Agencies	
	LIS-404D	Library Functions and Operations	
	Project		
	LIS-405	Guided Research Project	

Framework of Teaching-learning Process

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)		
				L	T	P
First Semester [All courses are Departmental Core Courses and Compulsory]						
LIS-101	Library and Society	Core	5 Credit	5	0	0
LIS-102	Knowledge Organization	Core	5 Credit	5	0	0
LIS-103	Resource Description	Core	5 Credit	5	0	0
LIS-104	Library Information Technology	Core	5 Credit	5	0	0
LIS-105	Information Sources and Services	Core	5 Credit	5	0	0
Second Semester [All courses are Departmental Core Courses and Compulsory]						
LIS-201	Library System Management	Core	5 Credit	5	0	0
LIS-202	Document Classification	Core	5 Credit	5	0	0
LIS-203	Document Cataloguing	Core	5 Credit	5	0	0
LIS-204	Content Designation and Metadata Encoding	Core	5 Credit	5	0	0
LIS-205	Information Systems and Users	Core	5 Credit	5	0	0
<i>Third Semester [Students have to take 2 compulsory core courses , 2 Major Electives and 1 Interdisciplinary Elective from other departments/SWAYAM Platform]</i>						
LIS-301	Information Communication and Management	Core	5 Credit	5	0	0
LIS-302	Information Retrieval	Core	5 Credit	5	0	0

LIS-303A	Automated Library System	Select One	Major Elective	5 Credit	5	0	0
LIS-303B	Digital Resource Management		Major Elective	5 Credit	5	0	0
LIS-303C	Technical Writing		Major Elective	5 Credit	5	0	0
LIS-303D	Digital Preservation		Major Elective	5 Credit	5	0	0
LIS-304A	Neoteric Library Technology	Select One	Major Elective	5 Credit	5	0	0
LIS-304B	Content Management and Web products		Major Elective	5 Credit	5	0	0
LIS-304C	Library Networking		Major Elective	5 Credit	5	0	0
LIS-304D	Learning Content Management System		Major Elective	5 Credit	5	0	0
LIS-305A	Current Trends in LIS	Select One	Interdisciplinary Elective	4 Credit	5	0	0
LIS-305B	Medical Information Systems and Services		Interdisciplinary Elective	4 Credit	5	0	0
LIS-305C	Agricultural Information Systems and Services		Interdisciplinary Elective	4 Credit	5	0	0
LIS-305D	LIS Education		Interdisciplinary Elective	4 Credit	5	0	0
<p><i>However, for DEPT 305(A/B/C/D) students may opt for a 4 credit course from SWAYAM Platform and can avail the option of credit transfer</i></p>							

Fourth Semester [Students have to take 3 compulsory core courses and 2 Major Electives and one compulsory Community Engagement course]

LIS-400	Library Community Development Programme (30 hours of involvement with at least 50 per cent field work)	Compulsory (Community Engagement course)	2 Credit	0	0	5	
LIS-401	Digital Library System	Core	5 Credit	0	0	5	
LIS-402	Research Methodology	Core	5 Credit	5	0	0	
LIS-403A	Community Information System	Select One	Major Elective	5 Credit	5	0	0
LIS-403B	Academic Library System		Major Elective	5 Credit	5	0	0
LIS-403C	Informetrics		Major Elective	5 Credit	5	0	0
LIS-403D	Web Scale Library Discovery Services		Major Elective	5 Credit	5	0	0
LIS-404A	Semantic Digital Repository	Select One	Major Elective	5 Credit	5	0	0
LIS-404B	Open Access System		Major Elective	5 Credit	5	0	0
LIS-404C	Library and Information Profession and Related Agencies		Major Elective	5 Credit	5	0	0
LIS-404D	Library Functions and Operations		Major Elective	5 Credit	5	0	0
Project							
LIS-405	Guided Research Project	Core	5 Credit	0	0	5	

Programme Credit Structure										
Sem	Course Code	Course Title	Type	Credit Pattern Pattern of Teaching- learning (hours per week)			Credit Value	Marks Distribution		
				Lecture (L)	Tutorial (T)	Practice (P)		Semester Examination	Internal Assessment	Total Marks
S E M I	First Semester [All courses are Departmental Core Courses and Compulsory]									
	LIS-101	Library and Society	Core	4	2	0	5	40	10	50
	LIS-102	Knowledge Organization	Core	3	1	2	5	40	10	50
	LIS-103	Resource Description	Core	4	2	0	5	40	10	50
	LIS-104	Library Information Technology	Core	2	0	4	5	40	10	50
	LIS-105	Information Sources and Services	Core	3	1	2	5	40	10	50
S E M II	Second Semester [All courses are Departmental Core Courses and Compulsory]									
	LIS-201	Library System Management	Core	4	2	0	5	40	10	50
	LIS-202	Document Classification	Core	0	2	4	5	40	10	50
	LIS-203	Document Cataloguing	Core	0	2	4	5	40	10	50
	LIS-204	Content Designation and Metadata Encoding	Core	3	1	2	5	40	10	50
	LIS-205	Information Systems and Users	Core	4	2	0	5	40	10	50
S E M	Third Semester [Students have to take 2 compulsory core courses , 2 Major Electives and 1 Interdisciplinary Elective from other departments/SWAYAM Platform]									
	LIS-301	Information Communication and Management	Core	4	2	0	5	40	10	50
	LIS-302	Information Retrieval	Core	4	2	0	5	40	10	50

III	Major Elective (Any One)										
	LIS-303A	Automated Library System	Select One	ME	4	2	0	5	40	10	50
	LIS-303B	Digital Resource Management		ME	4	2	0	5	40	10	50
	LIS-303C	Technical Writing		ME	4	2	0	5	40	10	50
	LIS-303D	Digital Preservation		ME	4	2	0	5	40	10	50
	Major Elective (Any One)										
	LIS-304A	Neoteric Library Technology	Select One	ME	4	2	0	5	40	10	50
	LIS-304B	Content Management and Web products		ME	4	2	0	5	40	10	50
	LIS-304C	Library Networking		ME	4	2	0	5	40	10	50
	LIS-304D	Learning Content Management System		ME	4	2	0	5	40	10	50
	Interdisciplinary Elective (Any One)										
	LIS-305A	Current Trends in LIS	Select One	IE	4	2	0	4	40	10	50
	LIS-305B	Medical Information Systems and Services		IE	4	2	0	4	40	10	50
	LIS-305C	Agricultural Information Systems and Services		IE	4	2	0	4	40	10	50
	LIS-305D	LIS Education		IE	4	2	0	4	40	10	50
	<i>However, for LIS-305(A/B/C/D) students may opt for a 4 credit course from SWAYAM Platform and can avail the option of credit transfer</i>										
SE	Fourth Semester [Students have to take 3 compulsory core courses and 2 Major Electives and one compulsory Community Engagement course]										
	LIS-400	Library Community Development Programme (30 hours of involvement with at least 50 per cent field)	CS	0	0	5	2	10 Report	10 Viva-voce/	20	

M		<i>work)</i>						writing	Presentation	
	LIS-401	Digital Library System	Core	2	0	5	5	40	10	50
IV	LIS-402	Research Methodology	Core	4	2	0	5	40	10	50
Major Elective (Any One)										
LIS-403A	Community Information System	Select One	ME	4	2	0	5	40	10	50
LIS-403B	Academic Library System		ME	4	2	0	5	40	10	50
LIS-403C	Informetrics		ME	4	2	0	5	40	10	50
LIS-403D	Web Scale Library Discovery Services		ME	4	2	0	5	40	10	50
Major Elective (Any One)										
LIS-404A	Semantic Digital Repository	Select One	ME	4	2	0	5	40	10	50
LIS-404B	Open Access System		ME	4	2	0	5	40	10	50
LIS-404C	Library and Information Profession and Related Agencies		ME	4	2	0	5	40	10	50
LIS-404D	Library Functions and Operations		ME	4	2	0	5	40	10	50
LIS-405	Guided Research Project	Core	0	0	5	5	40 [Survey Report, Assignment, Presentation]	10 [Viva-voce / Presentation]		50
Grand Total							101	810	210	1020

Course Contents Structure						
Sem	Course Code	Course Title	Course Summary	Marks Distribution		
				Semester Exam	Internal Assessment CE / PRC / PRJ	Total Marks
S E M I	LIS-101	Library and Society	Unit 1: Library as a Social Institution Unit 2: Types of Libraries and other Information Agencies: Levels, Features and Functions Unit 3: Library Policies and Legislations Unit 4: Library Movement and Profession Unit 5: Public Relations and Extension Activities	40	10	50
	LIS-102	Knowledge Organization	Unit 1: Basic concepts Unit 2: Schemes of Library Classification Unit 3: General Theory of Library Classification Unit 4: Special Classification Schemes Unit 5: Trends and Future of Library Classification Unit 6: Practical Component (Colon Classification 6 th edition)	40	10 (PRC)	50
	LIS-103	Resource Description	Unit 1: Basic Concepts and Genesis Unit 2: Principles and Rules Unit 3: Cataloguing Codes Unit 4: Authority Data and Subject Cataloguing Unit 5: Cataloguing – Policies and Initiatives	40	10	50
	LIS-104	Library Information Technology	Unit 1: Introduction to ICT Unit 2: Logical Units of ICT: Software Unit 3: Computer Programming Languages Unit 4: Computer Networks and Distributed Information System Unit 5: Database Management System (DBMS) Unit 6: Practical Components	40	10 (PRC)	50
	LIS-105	Information Sources and Services	Unit 1: Information Sources	40	10	50

			Unit 2: Reference and Information Services Unit 3: Information Products Unit 4: Electronic Information Products and Services Unit 5: Technical Writing			
S E M II	LIS-201	Library System Management	Unit 1: Management of Libraries and Information Centres Unit 2: Library Housekeeping Operations and System Analysis Unit 3: Managerial Tasks of Library Administration Unit 4: Human Resource Management Unit 5: Monitoring, Quality Control and Change Management	40	10	50
	LIS-202	Document Classification	Unit 1: Introduction Unit 2: Dewey Decimal Classification - stage 1 Unit 3: Dewey Decimal Classification - stage 2 Unit 4: Universal Decimal Classification - stage 1 Unit 5: Universal Decimal Classification - stage 2	40	10	50
	LIS-203	Document Cataloguing	Unit 1: Introduction Unit 2: CCC 5 th edition – Rules for description Unit 3: CCC 5 th edition – Rendering of access points Unit 4: AACR II – Rules for description Unit 5: AACR II – Rendering of access points	40	10	50
	LIS-204	Content Designation and Metadata Encoding	Unit 1: Introduction to Content Designation Unit 2: Bibliographic Data Formats Unit 3: Authority Data Formats Unit 4: Generic Metadata Schemas Unit 5: Domain-specific Metadata Schemas Unit 6: Practical Components	40	10 (PRC)	50
	LIS-205	Information Systems and Users	Unit 1: Information Systems Unit 2: Information Institutions Unit 3: Library Networking and Consortia Unit 4: Information Consolidation and Repackaging	40	10	50

			Unit 5: Information Users				
S E M III	LIS-301	Information Communication and Management	Unit 1: Introduction to Information Science Unit 2: Information Communication and Society Unit 3: Economics and Marketing of Information Unit 4: Information and Knowledge Management Unit 5: Information Literacy	40	10	50	
	LIS-302	Information Retrieval	Unit 1: Introduction to Information Retrieval System Unit 2: Subject Indexing: Principles and Practices Unit 3: Indexing Languages and Vocabulary Control Unit 4: Digital IR Systems Unit 5: IR Systems – Users, Evaluation and Trends	40	10	50	
	Major Elective (Any One)						
	LIS-303A	Automated Library System	Unit 1: Introduction to Library Automation Unit 2: Workflow of Automated Library System Unit 3: Components of Automated Library System Unit 4: Standards related to Library Automation Unit 5: Software related to Library Automation Unit 6: Practical Components	40	10 (PRC)	50	
	LIS-303B	Digital Resource Management	Unit 1: Introduction to Digital Information Resources Unit 2: Text Retrieval Engines and Retrieval Support Tools Unit 3: Content Management System Unit 4: Web 2.0 and Library 2.0 Unit 5: Semantic Web Technologies Unit 6: Practical Components	40	10 (PRC)	50	
LIS-303C	Technical Writing	Unit 1: Process of written communication Unit 2: Technical Writing: Meaning, features and scope Unit 3: Technical reports, feasibility reports, Technical manual	40	10	50		

		Unit 4: Guidelines for technical writing			
LIS-303D	Digital Preservation	Unit 1: Introduction to digital preservation Unit 2: Steps in digital preservation process Unit 3: Digital storage and media Unit 4: Digital content and IPR	40	10	50
Major Elective (Any One)					
LIS-304A	Neoteric Library Technology	Unit 1: Designing Taxonomy, Thesaurus, and visual vocabulary Unit 2: Linked open data and graph visualization Unit 3: Real Time Visualization and Sites Metrics Unit 4: Open knowledge and reference management system Unit 5: Barcode generation, YouTube management, and web services	40	10	50
LIS-304B	Content Management and Web products	Unit 1: Introduction, Web Sharing and overview of content management system. Unit 2: Tools and techniques in content management system Unit 3: Designing Website through open source software. Unit 4: Collaborative content development Unit 5: Web Content Life Cycle Framework	40	10	50
LIS-304C	Library Networking	Unit 1: Introduction Unit 2: Overview of library network. Unit 3: Library Networks: The Indian Scenario Unit 4: Library Networks: International Scenario	40	10	50
LIS-304D	Learning Content Management System	Unit 1: General Concepts of Learning Management System Unit 2: E-Learning for Course and Categories Unit 3: Quiz Creation and other activities Unit 4: Video Conferencing System Unit 5: Attractive E-Learning Interface	40	10	50

Interdisciplinary Elective (Any One)						
LIS-305A	Current Trends in LIS	Unit 1: Foundations of Library & Information Science Unit 2: Information Centre Management Unit 3: Open Access Sources and Services Unit 4: Library Information Technology Unit 5: Virtual Learning System	40	10	50	
LIS-305B	Medical Information Systems and Services	Unit 1: History of medicine, Medical terminologies. Unit 2: Index Medicus and others Unit 3: Role of NLM, WHO, ICMR. Efforts of National Informatics Center Unit 4: Medical Librarians' Discussion Forum Unit 5: Medical college libraries	40	10	50	
LIS-305C	Agricultural Information Systems and Services	Unit 1: Growth and development of agricultural education and research in India. Unit 2: Special information needs of agricultural faculty, research staff extension personnel and stations. Unit 3: Specialized collection and information sources Unit 4: Resource sharing and networking in agricultural libraries Unit 5: Online Agricultural Information Resources	40	10	50	
LIS-305D	LIS Education	Unit 1: Manpower development Unit 2: Curriculum design methodology Unit 3: Teaching methods and techniques Unit 4: Research method Unit 5: Advanced LIS education	40	10	50	
S E M IV	LIS-400	Library Community Development Programme <i>(30 hours of involvement with at least 50 per cent field work)</i>	Students have to participate in the Community Engagement programmes/ activities of the department for the concerned year and follow it up with a written Report & Presentation and Viva-Voce. The main objectives are to develop an appreciation of rural	10 (Field or survey report)	10 (Viva-voce / Presentation)	20

			<p>culture, lifestyle and wisdoms among students, to learn about the states of various agricultural and rural development programmes, to understand causes for rural distress and poverty and explore solutions for the same and to apply class room knowledge of courses to field realities. Evaluation pattern would be as follows:</p> <p>Report writing: 10 marks</p> <p>Presentation and viva-voce: 10 marks (in the presence of external expert(s) from other Departments of the Home University)</p>			
LIS-401	Digital Library System	<p>Unit 1: Historical and Theoretical Foundations</p> <p>Unit 2: Organization of Digital Objects</p> <p>Unit 3: Architecture, Information Retrieval and User interfaces</p> <p>Unit 4: Design and Development of Digital Library Systems</p> <p>Unit 5: Federated and Multilingual Digital Library Systems</p> <p>Unit 6: Practical Components</p>	40	10 (PRC)	50	
LIS-402	Research Methodology	<p>Unit 1: Introduction to Research Methodology</p> <p>Unit 2: Research Design and Methods</p> <p>Unit 3: Data Collection and Presentation</p> <p>Unit 4: Data Analysis and Interpretation</p> <p>Unit 5: Report Writing and Research Communication</p>	40	10	50	
Major Elective (Any One)						
LIS-403A	Community Information System	<p>Unit 1: Fundamentals of Community Information Services (CIS)</p> <p>Unit 2: Community Information Resources</p> <p>Unit 3: Local Studies</p> <p>Unit 4: Community Information Resources: Organization and Access</p>	40	10	50	

		Unit 5: Digital Community Information Services			
LIS-403B	Academic Library System	Unit 1: Academic Libraries and their Users Unit 2: Management of Academic Libraries Unit 3: Services in Academic Libraries Unit 4: Change Management in Academic Libraries Unit 5: Introduction of new digital applications			
LIS-403C	Informetrics	Unit 1: Introduction to Informetrics Unit 2: Citation analysis and its use Unit 3: Theories, Laws and Indicators Unit 4: Bibliometric and Webometric Tools Unit 5: Applications and Trends			
LIS-403D	Web Scale Library Discovery Services	Unit 1: Introduction and overview of LDS Unit 2: Initiatives and projects of LDS at national and international level Unit 3: Tools and techniques of Web scale library discovery services Unit 4: Trends and future of of library discovery services Unit 5: Practical components			
Major Elective (Any One)					
LIS-404A	Semantic Digital Repository	Unit 1: Institutional Digital Repository Unit 2: Designing and configuration of IDR Software Framework in Generic Level Unit 3: Semantic Web Enabled IDR Unit 4: Development of Museum related IDR Unit 5: Development of document management and community communication repository	40	10	50
LIS-404B	Open Access System	Unit 1: Introduction and overview of Open Access Unit 2: OA Pathfinders Unit 3: Promoting Open Access : OA Initiatives and Scenario Unit 4: Open Access Mandates and Policies			

LIS-404C	Library and Information Profession and Related Agencies	Unit 1: Librarianship as a Profession Unit 2: Ethical Issues in Librarianship Unit 3: Role of Professional Associations Unit 4: Organisations and Institutions Involved in the Development of Library and Information Services			
LIS-404D	Library Functions and Operations	Unit 1: Basic Housekeeping Operations Unit 2: Physical Infrastructure Planning Unit 3: Maintenance and Preservation Unit 4: Disaster Management(DM)			
LIS-405	Guided Research Project	On a selected topic pertaining to the applications of the professional techniques and their underlying principles. This guided research project is to be initiated at the 3 rd semester and is to be submitted for evaluation before dissolution of the 4 th semester classes. Field survey and project Writing: 40 marks Presentation and Viva-Voce (in the presence of external experts from other Universities/Institutions): 10 marks	40 (Assignment and Report writing)	10 (Viva/Presentation)	50

First Semester

Core Course

Course Code : LIS-101

Course Title : Library and Society

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-101	Library and Society	Core	5 Credit	4	2	0	40	10	50

Unit-1 Library as a Social Institution

- Objectives and functions of social institutions with special reference to libraries and information centers (LICs);
- Historical development of LICs, Information resources, Tools, Techniques and Technologies;
- Five Laws of Library Science, Modifications of Five Laws, other normative principles;
- Library and information Employability Program.

Unit-2 Types of libraries and other Information Agencies: Levels, features and functions

- National and Copyright libraries,
- Academic libraries,
- Public libraries,
- Special libraries and Information centres,
- Other information agencies and concerns, Automated, Digital and Virtual library systems

Unit-3 Library Policy and Legislation

- IFLA/UNESCO public library manifesto, IFLA/UNESCO guidelines;
- Acts relating to information with special reference to India, including Press and Registration of Books Act, Delivery of Books (Public Libraries) and Newspapers Act, Intellectual Property Rights;
- Library legislation – needs, Indian scenario, WB Public Libraries Act, 1979 (including amendments), Comparative study of library legislations in Indian states;
- International, and national programmes and policies – NAPLIS, Recommendations of National Knowledge Commission, India;

Unit-4 Library Movement and Profession

- Occupation, Vocation and Profession, Attributes of Profession, Librarianship as a profession in India and abroad,
- Professional ethics and duties of Library and Information workers;
- Professional associations and their role in library development;
- Library movement and development in India with special reference to West Bengal;
- Role of Professional Associations (RRRLF, ILA, IASLIC, ALA, CILIP, ASLIB, IFLA and etc.)

Unit-5 Public relations and Extension activities

- Library Public relations and Extension Service
- Community Information Service
- Local History collection
- Resource sharing and networking,

First Semester

Core Course

Course Code : LIS-101
Course Title : Library and Society

Reading List

- Bandyopadhyay, A.K. (2008). *Our public libraries*. Burdwan: R.Bandyopadhyay.
- Cornish, Graham P. (2001). *Interpreting the law for libraries, archives and information services*. Rev. 3rd ed. London: Facet Publishing.
- Davis, D. W. (1975). *Public libraries as cultural and social centres*. New York: Scarecrow.
- Greer, Roger C., Grover, Robert J. & Fowler, Susan G. (2013). *Introduction to the library and information professions*. 2nd ed. Westport, CT: Libraries Unlimited.
- IFLA. (1977). *Standards for library service*. 2nd ed. Munich: Verlag.
- India. (1959). *Advisory Committee for Libraries, Report*. Delhi: Manager of Publications.
- Khanna, J. K. (1987). *Library & society*. Kurukshetra: Research Publications.
- Koontz, C. & Gubbin, B., Eds. (2010). *IFLA public library service guidelines*. Berlin: De Gruyter Saur.
- Krishan Kumar (1986). *Library organization*. Delhi: Vikas.
- Kumar, P.S.G. (2001). *Indian encyclopedia of library & information science*. Vol. 3. New Delhi: S. Chand.
- Kumar, P.S.G. (2002). *A student's manual of library & information science*. Delhi: BR Publishing House.
- Laxman Rao, N., Vishwa Mohan, & Sudarshan Rao, S. (2001). *Changing dimensions of LIS education*. Hyderabad: IATLIS.
- Mittal, R. L. (1984). *Library administration: theory & practice*. 5th ed. Delhi: Metropolitan.
- Norman, S. (2001). *Practical copyright for information professional*. London: Facet Publishing.
- Pilling, S., & Kenna, S. (2002). *Co-operation in action: Collaborative initiatives in the world of information*. London: Facet Publishing.
- Ranganathan, S. R. (1957). *Five laws of library science*. Madras: Madras Library Association.
- Ranganathan, S. R., & Neelameghan, A. (1972). *Public library system*. Bangalore: Sarada Ranganathan Endowment.
- Rout, R. K. (1991). *Library legislation in India*. New Delhi: Reliance.
- Ray, Swapna (2005). *Public library act in Indian perspective*. Kolkata: Prova Prakashani.

- Sahai, S. (1973). *Library and community*. New Delhi: Today & Tomorrow.
- Sandy, N. (1999). *Copyright in further and higher education libraries*. 4th ed. London: Facet Publishing.
- Sharma, Pandey S.K. (1987). *Library and society*. New Delhi: Ess Ess Publications.
- Shera, J. H. (1970). *The foundations of education of librarianship*. Bombay: Asia.
- Shera, J. H. (1970). *Sociological foundations of librarianship*. New York: Asia Pub. House.
- UNESCO. (2000). *Unesco school library manifesto: the school library in teaching and learning for all*. The Hague: IFLA Headquarters.
- UNESCO & International Federation of Library Associations and Institutions. (1995). *Public library manifesto*. The Hague, Netherlands: IFLA.
- Vashisht, C. P. (1994). *Library movement and library development in India*. Delhi: ILA.
- Venkatappaiah, V. (1990). *Indian library legislation*. 2 vols. New Delhi: Daya.
- Withers, F. N. (1974). *Standards for library service: an international survey*. Paris: Unesco.

First Semester

Core Course

Course Code : **LIS-102**
Course Title : **Knowledge Organization**

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-102	Knowledge Organization	Core	5 Credit	3	1	2	40	10	50

Unit-1 Basic concepts

- Meaning, purpose and function of classification, Knowledge classification and Document classification;
- Universe of Subjects and Modes of formation of subjects;
- Categories – Ranganathan, Farradane, Vickery, etc;
- Facets and Facet Analysis, Speciators and their kinds, Phase relations: levels and kinds/nature;
- Isolates: Common and Special.

Unit-2 Schemes of Library Classification

- Classification schedule and its components, Kinds of scheme: Enumerative and Faceted;
- Major Classification Schemes: structure and features;
- Steps involved in practical classification, Call Number and its parts;
- Study of classification schemes – DDC, UDC, CC;
- Switching Languages – BSO.

Unit-3 General Theory of Library Classification

- Three planes of work;
- Normative principles – Laws, Canons, Principles and Postulates, Application in DDC, UDC and CC;
- Theory of Integrative Levels;
- Contributions of CRG, FID/CR and DRTC;
- Notational techniques in different classification systems.

Unit-4 Special Classification Schemes

- Need and purpose of special classification schemes;
- Theories of facet analysis and depth schedule;
- Application of theories of facet analysis: Ranganathan's theory, CRG's theory and Louise Spiteri's theory;
- Study of special classification schemes;
- Design of special classification schemes: steps and processes.

Unit-5 Trends and Future of Library Classification

- Classification and Computers: Digital versions of classification schemes;
- Automatic classification - Application of NLP and AI techniques, Projects and initiatives, Indian school of research in automatic classification;
- Classification and Digital resource organization;
- Classification and Ontology (dewey.info, udcdata.info) and Classification in Organizing and Searching on the web;
- Classification and SKOS;

Unit-6 Practical Component (Colon Classification 6th edition)

- Colon Classification – History, Genesis and Structure;
- Colon Classification – structure and rules;
- Building of class number - simple and compound subjects;
- Building of class number - complex subjects;
- Colon Classification – use of index.

First Semester

Core Course

Course Code : LIS-102
Course Title : Knowledge Organization

Reading List

- Broughton, Vanda. (2004). *Essential classification*. London: Facet Publishing.
- Batty, C. D. (1966). *An introduction to Colon Classification*. London: Bingley.
- Chan, L. M. (1985). *Cataloguing and classification: an introduction*. New York: McGraw Hill.
- Chan, L. M., Richmond, P. A., & Svenonius, E. (1985). *Theory of subject analysis: a sourcebook*. Littleton, Colo: Libraries Unlimited.
- Dhiman, A. K. & Yashoda Rani. (2005). *Learn library classification*. New Delhi: Ess Ess.
- Dhyani, P. (1998). *Library classification: theory and principles*. New Delhi: Wishwa Prakashan.
- Dhyani, P. (1983). *Classification schemes and Indian libraries*. New Delhi: Metropolitan.
- F.I.D. (1993). *Universal Decimal Classification*. IME. London: BSI.
- Forest Press. (2002). *WebDewey*. Dublin, Ohio: OCLC Forest Press.
- Foskett, D. J. (1974). *Classification and indexing in social sciences*. London: Aslib.
- Foskett, A. C. (1996). *The subject approach to information*. 5th ed. London: Clive Bingley.
- Halgamuge, S. K., & Wang, L. (2005). *Classification and clustering for knowledge discovery*. Berlin: Springer.
- Hunter, E. J. (1988). *Classification made simple*. Aldershot: Gower.
- Husain, Sabahat. (2004). *Library classification: facets and analysis*. Delhi: B. R. Publishing.
- Jennex, Murray E. (2008). *Knowledge management: concepts, methodologies, tools and applications*. New York: Information Science Reference.
- Kaula, P. N. (1985). *A treatise on Colon Classification*. New Delhi: Sterling.
- King, B., & Reinold, K. (2008). *Finding the concept, not just the word: a librarian's guide to ontologies and semantics*. Burlington: Elsevier Science.
- Krishan Kumar. (1980). *Theory of classification*. New Delhi: Vikas.
- Kumbhar, R. (2011). *Library classification trends in the 21st century*. Burlington: Elsevier Science.
- Lim, E. H. Y., Liu, J. N. K., & Lee, R. S. T. (2011). *Knowledge seeker: Ontology modelling for information search and management: a compendium*. Berlin: Springer.
- Maltby, A. (1975). *Sayers' manual of classification for librarians*. 5th ed. London: Andre Deutsch.
- Navalani, K., & Gidwani, N. N. (1981). *A practical guide to colon classification*. New Delhi: Oxford & IBH.
- Needham, C. D. (1971). *Organizing knowledge in libraries*. 2nd ed. London: Andre Deutsch.

- Pathak, L. P. (2000). *Sociological terminology and classification schemes*. New Delhi: Mittal Publications.
- Quinn, B. (1994). Recent theoretical approaches in classification and indexing. *Knowledge Organization*. 21(3); p.140-147.
- Raju, A. A. N. (1984). *Decimal, Universal Decimal and Colon Classification: a study in comparison*. Delhi: Ajanta.
- Ranganathan, S. R. (2006). *Philosophy of library classification*. Bangalore: Ess Ess.
- Ranganathan, S.R. (1966). *Elements of library classification*. 2nd ed. Bombay: UBS.
- Ranganathan, S.R. (1967). *Prolegomena to library classification*. 3rd ed. Bombay: UBS.
- Ranganathan, S. R. (1987). *Colon Classification*. Bangalore: SRELS.
- Rowley, J.E. & Farrow, J. (2000). *Organizing knowledge: an introduction to managing access to information*. 3rd ed. Aldershot: Gower.
- Satija, M. P. (2011). *A guide to the theory and practice of Colon Classification*. New Delhi: Ess Ess Publications.
- Sood, S. P. (1998). *Universe of knowledge and universe of subjects*. Jaipur: G. Star Printers.
- Taylor, A. G. (2007). *Introduction to cataloguing and classification*. 10th ed. New Delhi: Atlantic.
- Vickery, B. C. (1968). *Faceted classification: a guide to construction and use of special schemes*. London: Aslib.

First Semester

Core Course

Course Code : LIS-103

Course Title : Resource Description

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-103	Resource Description	Core	5 Credit	4	2	0	40	10	50

Unit-1 Basic Concepts and Genesis

- Library catalogue – historical and theoretical foundations, Difference of Library catalogue from Library Accession Register, Shelf List and Bibliography;
- Objectives (objectives propounded by Cutter, Osborn, Lubetzky, Svenonious and FRBR) and Functions of library catalogue;
- Cataloguing rule base – need, types and applications;
- Physical forms – book, sheaf, card and machine-readable (including OPAC) forms – their advantages and disadvantages and suitability in different types of libraries, Inner forms – dictionary, classified and alphabetico-classed forms and their comparative studies;
- Entries – types, formats and their functions, Filing of entries – rules and tools.

Unit-2 Principles and Rules

- Normative principles – objectives, scope and applications;
- Normative principles – History and time line of development, International Conference on Cataloguing Principles (ICCP), 1961;
- Canons and principles of cataloguing as propounded by Ranganathan;
- IME/ICC principles;
- Standardization of Bibliographic Description – ISBDs, Consolidated ISBD, FRBRized ISBDs.

Unit-3 Cataloguing Codes

- Cataloguing codes – definition, objectives, scope, need, components;
- Cataloguing codes - historical development;
- Features of Anglo-American Cataloguing Rules (AACR 2);
- Features of Classified Catalogue Code (CCC 5th edition);
- Features of RDA (Resource Description and Access).

Unit-4 Authority Data and Subject Cataloguing

- Authority data – name authority and subject authority, Rendering of Indic names;
- General principles of subject cataloguing;
- Subject heading lists and their features - Sears List of Subject Headings (SLSH);
- Subject heading lists and their features - Library of Congress Subject Headings (LCSH);
- Subject cataloguing by chain procedure.

Unit-5 Cataloguing – Policies and Initiatives

- Cataloguing Policies: need, purpose and advantages, Organization of cataloguing department;
- Centralized and co-operative cataloguing and Limited and selective cataloguing, Union Catalogue – layout, compilation, services (Indian and International);
- Content Designation initiatives – CCF, MARC, UNIMARC;
- IFLA initiatives – FRBR, FRAD, FRSAD, etc;
- Subject and Name authority initiatives – Program for Cooperative Cataloguing (BIBCO, CONSER, SACO, NACO) and VIAF.

First Semester

Core Course

Course Code :	LIS-103
Course Title :	Resource Description

Reading List

- ALA (1968). *ALA Rules for filing Catalog Cards*. Chicago: ALA.
- Bean, C.A., & Green, R. (2001). *Relationships in organization of knowledge*. London: Kluwer.
- Bowman, J. H. (2003). *Essential cataloguing*. London: Facet Publishing.
- Chan, L. M. (1994). *Cataloging and classification: an introduction*. New York: McGraw-Hill.
- Chapman, Liz. (1984). *How to catalogue: a practical handbook*. London: Clive Bingley.
- Delsey, T. (1999). *The logical structure of AACR – Part I & Part II*. Retrieved from <http://www.nlc-bnc.ca/jsc/aacrdel.htm>
- Heaney, M. (1995). Object-oriented cataloguing. *Information Technology and Libraries*, 14(3), 135–153.
- Horner, J. (1975). *Cataloguing*. London: AAL.
- Hunter, E. J. (1986). *Computerised cataloguing*. London: Clive Bingley.
- Hunter, E. J., & Blackwell, K.G.B. (1983). *Cataloguing*. London: Clive Bingley.
- IFLA. (1998). *IFLA: Functional requirements for bibliographic records: final report*. Munchen: K.G. Saur.
- International Conference on the Principles and Future Development of AACR, & Weihs, J. R. (1998). *The principles and future of AACR: Proceedings of the International Conference on the Principles and Future Development of AACR, Toronto, Ontario, Canada, October 23-25, 1997*. Ottawa: Canadian Library Association.
- JISC (2006). *RDA online*. Retrieved from <http://www.rdaonline.org>
- Girja Kumar & Krishan Kumar (1988). *Theory of cataloguing*. 5th ed. New Delhi: Vikas.
- Krishan Kumar. (1993). *Cataloguing*. New Delhi: Har Anand.
- Kumar, P. S. G. & Muhammad, Riaz (1999). *Cataloguing: theory and practice*. New Delhi: S.Chand.
- Le, B. P. (2005). *Functional requirements for bibliographic records (FRBR): hype or cure-all?* Binghamton, NY: Haworth Information Press.
- Livingston, E. D. (1982). *Rudiments of library cataloguing: theory and practice*. Hyderabad: Andhra Pradesh Public Library Association.
- Nanda, M. (2006). *Library cataloguing*. New Delhi, India: Anmol Publications.

- Needham, C. D. (1971). *Organisation of knowledge and libraries: an introduction to classification and cataloguing*. 2nd ed. London: Andre Deutsch.
- Olding, R.K. (1967). *Readings in library cataloguing*. New Delhi: Lakshmi.
- Oliver, C. (2010). *Introducing RDA: a guide to the basics*. Chicago: American Library Association.
- Patton, G. E. (2009). *Functional requirements for authority data: a conceptual model*. München: K.G. Saur.
- Ranganathan, S. R. (1955). *Headings and canons: comparative study of five catalogue codes*. Madras: S. Viswanathan.
- Sengupta, B. (1975). *Cataloguing: its theory and practice* (3rd ed.). Calcutta: World Press.
- Svenonius, E. (1989). *The conceptual foundations of descriptive cataloguing*. San Diego: Academic Press.
- Svenonius, E. (2000). *The intellectual foundations of information organization*. Cambridge, Mass: MIT Press.
- Tillett, B. B., Cristán, A. L., De, K. T., & Van, W. H. (2008). *IFLA cataloguing principles*. Berlin: Walter de Gruyter, Inc.
- Tripathy, S. M. (1978). *Modern cataloguing theory and practice*. 2nd ed. Agra: Shivlal Agarwal.
- Vishwanathan, C. G. (1983). *Cataloguing: theory and practice*. Lucknow: Print House.
- Wynar, B.S. (1985). *Introduction to cataloging and classification*. 7th ed. Littleton: Libraries Unlimited.
- Welsh, A., & Batley, S. (2012). *Practical cataloguing: AACR, RDA and MARC 21*. Chicago: Neal-Schuman, an imprint of the American Library Association.
- Yee, M.M. & Layne, S.S. (1998). *Improving online public access catalogue*. Chicago: ALA.
- Zeng, M. L., Žumer, M., Salaba, A., & IFLA Working Group on the Functional Requirements for Subject Authority Records (FRSAR). (2011). *Functional requirements for subject authority data (FRSAD): a conceptual model*. Berlin: De Gruyter Saur.
- Zeng, M. L., & Žumer, M. (January 01, 2010). Introducing FRSAD and mapping it with SKOS and other models. *International cataloguing and bibliographic control*, 39, 3, 53-56.

First Semester

Core Course

Course Code : **LIS-104**

Course Title : **Library Information Technology**

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-104	Library Information Technology	Core	5 Credit	2	0	4	40	10	50

Unit-1 Introduction to ICT

- Data, information and knowledge, ICT – definition, scope, application in human activities, social implication, Application of ICT in activities of library and information centres;
- Brief history of computer development, Generation of computers, Characteristics and classification of digital computers;
- Anatomy of digital computers - System hardware, Memory units and auxiliary storage devices, Peripheral devices (Input and output devices);
- Communication devices, Transmission media (Bound links and Unbound links), Switches;
- Data Representation in Computer - Bits, bytes and word, Number system (Binary, Octal, Decimal, Hexadecimal and their conversion), Text representation codes (ASCII, ISCII, EBCDIC and UNICODE), 7 bit & 8 bit ASCII and UTF-8 & UTF-16.

Unit-2 Logical Units of ICT: Software

- System software – Operating System, Simulators, Emulators, Translators;
- Application software, System utility software, Software packages and their domains of application;
- Operating Systems – Types and functions, Basic concepts related to MSDOS, Windows and Linux operating system;
- Open source software and open standards;

- Software and standards related to LIS domain.

Unit-3 Computer Programming Languages

- Definition, scope and use of programming languages, Types of programming languages – machine language, assembly language and high level language;
- High level programming languages – classification, application domain and generations;
- Program development tools – compiler, interpreter, loader, linker and locator;
- Programming process – steps, algorithm and flowcharting;
- Overview of popular high-level languages – C, C++, Java, PHP, Python etc.

Unit-4 Computer Networks and Distributed Information System

- Computer networks – definition, scope, purpose, features and advantages, Types of network – LAN, MAN and WAN;
- Internet – origin, development, architecture, connection options; Internet in India – GIAS, ISPs and connection options; Internet addressing system – IP address and domain name system, Internet, Intranet and Extranet;
- Internet resource access tools – Telnet, FTP, Gopher, Archie, Mosaic and WWW;
- Web retrieval tools – subject directories, search engines and meta search engines;
- Distributed information system and library – Web 2.0, Library 2.0, Linked data, Cloud computing, Semantic Web.

Unit-5 Database Management System (DBMS)

- Concept, scope, purpose and advantages of DBMS;
- Entity, attributes and properties, Field, record and database;
- Data models – hierarchical, network and relational, Basics of RDBMS;
- Bibliographic databases, Search strategy and techniques of data retrieval, CDROM database searching;
- WINISIS as bibliographic database management system.

Unit-6 Practical Components

- Operating Systems - MSDOS, Windows OS, Linux basics;
- Office Management Software Group;
- Programming language – Basic tasks and problem solving (e.g C, C++, JAVA, PHP and etc.);
- DBMS – Multipurpose DBMS and Bibliographic DBMS (e.g. MySQL, Postgresql, SQLYog, MariaDB) ; and
- Bibliographic and Full-text database searching.

First Semester

Core Course

Course Code : **LIS-104**
Course Title : **Library Information Technology**

Reading List

- Basandra, Suresh K. (2002). *Computers today*. New Delhi: Galgotia
- Bob, W., & McKellen, M. (1995). *A beginner's guide to the PC*. Delhi: Affiliated East West Press,.
- Botto, Francis. (1993). *Multimedia, CD-ROM and compact disc: a guide for users and developers*. New Delhi: Galgotia.
- Bradley, P. (2007). *How to use Web 2.0 in your library*. London: Facet.
- Bradley, P. (1999). *Internet power searching: the advanced manual*. New York: Neal-Schuman Publishers.
- Bradley, P., & Aslib. (2000). *World Wide Web: how to design and construct web pages*. London: ASLIB.
- Chowdhury, G. G., & Chowdhury, S. (2001). *Searching CD-ROM and online information sources*. London: Facet Publishing.
- Deenadayalu, R. (1990). *Computer science* (Vol. 2). New Delhi: TMH.
- Engard, N. C. (2009). *Library mashups: Exploring new ways to deliver library data*. Medford, N.J: Information Today, Inc.
- Engard, N. C. (2010). *Practical open source software for libraries*. Oxford: Chandos Publishing.
- Gorman, M. (2003). *The enduring library: technology, tradition, and the quest for balance*. Chicago: American Library Association.
- Hagler, R. (1997). *The bibliographic record and information technology*. Chicago: American Library Association.
- Jacsó, P., & Lancaster, F. W. (1999). *Build your own database*. Chicago: American Library Association.
- Jean, G. (2011). *Digital library*. New Delhi: World Technologies.
- Kam, D. (2009). *Role and policy implications of ICT in India*. New Delhi: Shree Publishers & Distributors.
- Kernighan, B. W., & Ritchie, D. M. (1988). *The C programming language*. Englewood Cliffs, N.J: Prentice Hall.
- Leon, A. & Mathews, L. (2004.). *Fundamentals of information technology* (Latest edition.). Chennai: Leon Tech World.
- Library Association., & Library Information Technology Centre. (1996). *Library technology*. London: Published jointly by the Library Association and the Library Information Technology Centre.
- Chartered Institute of Library and Information Professionals (Great Britain). (1998). *Multimedia information & technology: MmIT*. London, England: Multimedia Groups of Aslib.

Library of Congress. (1988). *Advances in library information technology*. Washington, D.C: Cataloging Distribution Service, Library of Congress.

Matthews, J. R. (1980). *Choosing an automated library system: A planning guide*. Chicago: American Library Association.

Mukhopadhyay, P. (2013). *Course of action: Library information technology*. Kolkata: Prova Prakashani.

Satyanarayana, N. R. (1995). *A manual of computerisation in libraries*. New Delhi: Wishwa Prakashan.

Rajaraman, V. (1995). *Fundamentals of computers*. New Delhi: PHI.

Rajasekharan, K., & Nafala, K. M. (2007). *Creation of digital document archives with Winisis*. Kerala Institute of Local Administration.

Scott, M. L. (2006). *Programming language pragmatics*. San Francisco, CA: Morgan Kaufmann Pub.

Sinha, P. K. (1992). *Computer fundamentals: concept, systems and applications* (2nd ed.). Delhi: BPB Publications.

Tanenbaum, A. S. (1996). *Computer networks*. Upper Saddle River, N.J: Prentice Hall PTR.

Tanenbaum, A. S. (1984). *Structured computer organization*. Englewood Cliffs, N.J: Prentice-Hall.

Vaughan, J., & ALA TechSource. (2011). *Web scale discovery services*. Chicago, Ill: ALA TechSource.

Viswanathan, T. (1992). *Telecommunication switching systems and networks*. New Delhi: Prentice Hall of India Private Ltd.

Walsh, T. (2005). *Introducing ICT: Basic to intermediate*. Dublin: Gill & Macmillan.

Williams, H. E., & Lane, D. (2002). *Web database applications with PHP & MySQL*. Beijing: O'Reilly.

First Semester

Core Course

Course Code : **LIS-105**

Course Title : **Information Sources and Services**

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-105	Information Sources and Services	Core	5 Credit	3	1	2	40	10	50

Unit-1 Information Sources

- Information Sources – categories and features, Information sources vs. resources, Organization of information sources;
- Documentary Sources: Primary, Secondary and Tertiary, Institutional and Human Sources;
- Non print materials including digital information sources, Traditional Vs. Digital sources of information;
- Reference Books: Meaning, Differences with traditional book, Categories of reference books, Indian reference sources;
- Evaluation of Reference Sources and Library Orientation Program

Unit-2 Reference and Information Services

- Concept, definition, scope and types;
- Reference Referral, Documentation and Information Services: Definition, Need, Characteristics and Differences;
- Theories of reference services, Reference Process: Search strategy and techniques, Reference Questions and Reference Interview;
- Alerting Services – Newspaper clippings and News brief services, CAS and SDI services, Abstracting and Indexing Services;
- Translation Services: Tools and Pools, Document Delivery Services, Reference services – advancements and trends.

Unit-3 Information Products

- Information products: Meaning and objectives, Techniques of production and Design issues;
- Abstract and Abstracting: Types and Guidelines for preparation of Abstract;
- In-house Communications: Newsletters, House bulletins and other In-house communications;
- Trade and Product bulletins, Reports, Reviews and related products;
- Other secondary information products.

Unit-4 Electronic Information Products and Services

- Electronic information sources and services – Conceptual foundations, Types and characteristics, Traditional Vs. Digital information sources;
- Bibliographic databases, Citation databases, Full-text databases, Portals, Vortals and Gateways, Multimedia based information products, Open access knowledge system: products and services;
- Alerting services (CAS & e-CAS, SDI & e-SDI, RSS based services), Bibliographic, Referral, Literature search, Electronic document delivery and machine translation services;
- Virtual Reference Services: Tools and Techniques (Publishers based services – Xrefer, Credo etc, Library based services – QuestionPoint, VRD etc, Use of asynchronous and synchronous virtual communication tools);
- Trends and future.

Unit-5 Technical Writing

- Scope, structure and functions of technical communication, Creative vs. Technical writing;
- Categories of technical communication – academic (summary, reports, digests, reviews, manual etc), business (MoU, License, Contract, brochure etc) and policy (mission statement, plan and policy statement, action statement etc);
- Technical editing and editorial tools;
- Citation management – styles, standards and tools;
- Preparation of short communications, review articles, technical reports, house bulletins, newsletters, conference/seminar brochure etc.

First Semester

Core Course

Course Code : **LIS-105**
Course Title : **Information Sources and Services**

Reading List

- Bopp, R. E., & Smith, L. C. (1995). *Reference and information services: An introduction*. Englewood, Colo.: Libraries Unlimited.
- Cassell, K. A., & Hiremath, U. (2013). *Reference and information services: An introduction*. 3rd ed. London: Facet Publishing.
- Chatterjee, Amitabha (2013). *Elements of information analysis, consolidation and repackaging (IACR)*. Kolkata: Prova Prakashani.
- Chatterjee, A. (2016). *Elements of Information Organization and Dissemination*. Netherlands: Elsevier Science.
- Cheney, F. N. (1975). *Fundamental reference sources*. Chicago: American Library Association.
- Crawford, J. (2006). *The Culture of evaluation in library and information services*. Burlington: Elsevier Science.
- Crawford, J., & Aslib. (2000). *Evaluation of library and information services*. London: Aslib.
- CSP International Ltd. (1986). *The Global structure of the electronic information services industry*. London: British Library.
- Farmer, L. S. J. (2007). *The human side of reference and information services in academic libraries: Adding value in the digital world*. Oxford: Chandos.
- Foskett, D. J. (1994). *Information service in libraries*. New Delhi: Anmol Publications.
- Fourie, D. K., & Dowell, D. R. (2002). *Libraries in the information age: An introduction and career exploration*. Greenwood, Colo.: Libraries Unlimited.
- Gorman, G. E. (2001). *Information services in an electronic environment*. Lanham, MD: Scarecrow Press.
- Guha, B. (1983). *Documentation and information: services, techniques and systems*. Calcutta: World Press.
- Katz, B. (2002). *Introduction to reference work*. Boston: McGraw-Hill.
- Katz, W. A., & Tarr, A. (1978). *Reference and information services: a reader*. Metuchen, NJ: Scarecrow Press.
- Krishan Kumar (1996). *Reference service*. New Delhi: Vikas Pub. House.
- Lankes, R. D., & Nast, P. (2008). *Virtual reference service: from competencies to assessment*. New York: Neal-Schuman Publishers.
- Lannon, J. M. (1985). *Technical writing*. Boston: Little, Brown.

Second Semester

Core Course

Course Code : **LIS-201**

Course Title : **Library System Management**

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-201	Library System Management	Core	5 Credit	4	2	0	40	10	50

Unit-1 Management of Libraries and Information Centres

- Functions and principles of management;
- Management philosophy and schools of thought;
- Application of management principles in libraries and information centres;
- Library administration – concept, definition and scope;
- Library administration vs. Library organization, Library organization – structure, process of structuring, charts (horizontal and vertical).

Unit-2 Library Housekeeping Operations and System Analysis

- Different sections of libraries and information centres and their functions;
- Acquisition and technical processing of library materials;
- Serials control and Circulation control;
- Collection development – policies, procedures, evaluation and weeding, Stock maintenance and Stock verification – policies and procedures;
- System analysis and design, Library as a system, System analysis of library workflow.

Unit-3 Managerial Tasks of Library Administration

- Library committee and Library authority – Types, functions and need, Librarian and his role in decision making, Library rules and regulations;
- Library records and reports - Records management, Reports – types, compilation, annual reports, Library statistics;
- Maintenance - Stock management, Preservation and Conservation;
- Planning – purpose, types and steps, Building and space management, Library furniture and Causes of Disasters, Disaster Management Planning, Security System;
- Finance – Source, Budgeting techniques, Financial estimation and cost benefit analysis;

Unit-4 Human Resource Management

- Objectives of human resource management, Manpower Planning, Categories of staff, Staffing requirements;
- Management of change;
- Method of manpower planning – Job analysis, Job description, Selection, Recruitment, Induction and deployment, Training and Development;
- Performance appraisal, Interpersonal relation, Group dynamics, Johari Window;
- Leadership – theories, styles, approaches and models;
- Motivation – theories of motivation, sources of motivation.

Unit-5 Monitoring, Quality Control and Change Management

- Performance measurement, standards, and time-motion study;
- Monitoring and controlling techniques – OR, MIS, MBO, SWOT, DFD, Network Analysis, PERT/CPM, PEP, MAP, PCS.
- Quality Indicator in LIS domain – LibQUAL+. COUNTER, EQUINOX, ISO-9000,
- Quality improvement cycle, Total Quality Management (TQM);
- Change management in library and information centres.

Second Semester

Core Course

Course Code : **LIS-201**
Course Title : **Library System Management**

Reading List

- Bakewell, K. G. B. (1997). *Managing user-centred libraries and information services*. 2nd ed. London: Maxwell.
- Bryson Jo. (1996). *Effective library and information management*. Bombay: Jaico Pub. House
- Cook, C. (2002). *The maturation of assessment in academic libraries: The role of LibQUAL+ TM*. Bradford, England: Emerald Group Pub.
- Coote, H. & Batchelor, B. (1997). *How to market your library services effectively*. 2nd ed. London: Aslib.
- Crawford, J. (1997). *Evaluation of library and information services effectively*. 2nd ed. London: Aslib.
- Evans, G. E. (1983). *Management techniques for librarians*. 2nd ed. New York: Academic Press.
- Evans, G. Edward and Layzell, Patricia. (2007). *Management basics for information professionals*. 2nd ed. London: Libraries Unlimited.
- Georgi, C., Bellanti, R., & Holbrook, F. K. (2013). *Excellence in Library Management*. Hoboken: Taylor and Francis.
- Gautam, J. N. (1991). *Library and information management*. New Delhi: Prentice-Hall India.
- Hayes, R. M. (2001). *Models for library management, decision-making, and planning*. San Diego, Calif.: Academic Press.
- Heath, F. M., Kyrillidou, M., & Askew, C. A. (2004). *Libraries act on their LibQUAL+ findings: From data to action*. Binghamton, NY: Haworth Information Press.
- Hernon, P., & Altman, E. (1998). *Assessing service quality: Satisfying the expectations of library customers*. Chicago: American Library Association.
- Jain, A. K. (1999). *Marketing information products and services: a primer for library and information professionals*. New Delhi: Tata McGraw-Hill.
- Katz, W.A. (1980). *Collection development, the selection of materials for libraries*. New York: Holt, Rinehart & Winston.
- Krishan Kumar. (1985). *Library manual*. New Delhi: Vikas.
- Lancaster, F. W., & Sandore, B. (1997). *Technology and management in library and information services*. Champaign, Ill: University of Illinois Graduate School of Library and Information Science.
- Laughlin, S., & Wilson, R. W. (2008). *The quality library: A guide to staff-driven improvement, better efficiency, and happier customers*. Chicago: American Library Association.
- Martin, J. (2009). *Human resource management*. Los Angeles: SAGE.
- Mittal, R.L. (1984). *Library administration: theory and practice*. 5th ed.. Delhi: Metropolitan.
- Moran, Barbara B., Stuert, Robert D. & Morner, Claudia. (2012). *Library and information center management*. 8th ed. Santa Barbara, CA: Libraries Unlimited.

- Narayana, G J. (1991). *Library and information management*. New Delhi: Prentice Hall of India.
- Peter, C., & Gorman, G.E. (2001). *Managing information resources in libraries and information services: collection management in theory and practice*. London: Facet Publishing.
- Prytherch, R. ed. (1998). *Gower handbook of information management*. London: Gower.
- Pugh, L. (2007). *Change management in information services*. Aldershot, Hampshire, England: Ashgate.
- Ranganathan, S.R. (1959). *Library administration*. 2nd ed. Bombay: Asia.
- Rowley J. (2001). *Information marketing*. Aldershot: Ashgate.
- Shera, J. S. (1978). *Library organization*. New Delhi: Vikas.
- Simmons-Welburn, J., & McNeil, B. (2004). *Human resource management in today's academic library: meeting challenges and creating opportunities*. Westport, Conn: Libraries Unlimited.
- Spiller, David. (1974). *Book selection: an introduction to principles and practice*. Rev. 2nd ed. London: Clive Bingley.

Second Semester

Core Course

Course Code : **LIS-202**

Course Title : **Document Classification**

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-202	Document Classification	Core	5 Credit	0	2	4	40	10	50

Unit-1 Introduction

- History and Genesis of DDC;
- Structure and rules of DDC, Steps in practical classification;
- History and Genesis of UDC;
- Structure and rules of UDC, Steps in practical classification;
- Comparative study of DDC, UDC and CC.

Unit-2 Dewey Decimal Classification – stage 1 (Edition as decided by Department)

- Summary;
- Schedule;
- Tables;
- Building class number for simple and compound subjects;
- Building class number for complex subjects.

Unit-3 Dewey Decimal Classification – stage 2 (Edition as decided by Department)

- Relative index;
- Call number (use of Cutter number, use of Dewey Cutter Program of OCLC (<http://www.oclc.org/support/services/dewey/program/license.en.html>);
- Shelf order;
- WebDewey trial (<http://www.oclc.org/content/forms/worldwide/en/webdewey-free-trial.html>);
- Use of DDC for organization of digital resources (CyberDewey, DDC Linked Data – Dewey.info).

Unit-4 Universal Decimal Classification – stage 1 (Edition as decided by Department)

- Main tables;
- Auxiliary tables;
- Common auxiliaries;
- Special auxiliaries;
- Facetisation and Synthesis.

Unit-5 Universal Decimal Classification – stage 2 (Edition as decided by Department)

- Building class number for simple and compound subjects;
- Building class number for complex subjects;
- Call number and Shelf order;
- Use of UDC in organization of digital resources, UDC consortium (<http://www.udcc.org/>), UDC in Indic Scripts (<http://www.udcc.org/udcsummary/php/index.php>);
- UDC Linked Data (<http://udcdata.info/>).

Second Semester

Core Course

Course Code : **LIS-202**
Course Title : **Document Classification**

Reading List

- Aida, S. (January 01, 2008). Use of the Universal Decimal Classification: A world-wide survey. *Journal of Documentation*, 64, 2, 211-228.
- British Standards Institution. (1963). *Guide to the Universal Decimal Classification (UDC)*. London: BSI.
- British Standards Institution. (1993). *Universal Decimal Classification: International medium edition*. Milton Keynes: BSI Standards.
- British Standards Institution. (2005). *UDC, Universal Decimal Classification*. London: British Standards Institution.
- Chan, L. M., Comaromi, J. P., Mitchell, J. S., & Satija, M. P. (1996). *Dewey decimal classification: A practical guide*. Albany: Forest Press.
- Davis, S. W. (1992). *DDC 20 workbook: A practical introduction to the Dewey Decimal Classification*. Albany, N.Y: Forest Press.
- Davis, S. W. (January 01, 1993). DDC Workbook: A Practical Introduction to the Dewey Decimal Classification (M.P. Satija). *Knowledge Organization*
- Dewey, M., & Custer, B. A. (1979). *Dewey decimal classification and relative index (19th edition)*. Albany: Forest Press.
- Dewey, M., & Mitchell, J. S. (2011). *Dewey decimal classification and relative index (23rd edition)*. Dublin, Ohio: OCLC Online Computer Library Center, Inc.
- Gopinath, M. A., Mangai, M. A. A. M., Neelameghan, A., & Prasad, K. N. (2004). *Subject classification practice: S. R. Ranganathan's postulational approach ; worked out examples using CC, DDC, and UDC schemes*. New Delhi: Published by Ess Ess Publications for Sarada Ranganathan Endowment for Library Science, Bangalore.
- Kaushik, S. K. (2004). *DDC 22: A practical approach*. New Delhi: Ess Ess Publications.
- Raju, A. A. N. (1995). *Dewey Decimal Classification (DDC 20): theory and practice, a practical & self instructional manual*. Madras: T.R. Publications.
- Rigby, M. (1981). *Automation and the UDC, 1948-1980*. The Hague: Fédération Internationale de Documentation.
- Robinson, G. (1979). *UDC, a brief introduction*. The Hague: International Federation for Documentation.
- Rozman, D. (January 01, 2009). The practical value of classification summaries in information management and integration. *Extensions and Corrections to the UDC*, 31, 275-283.
- Satija, M. P. (2011). *A guide to the theory and practice of Colon Classification*. New Delhi: Ess Ess Publications.

- Satija, M. P. (2011). *The theory and practice of the Dewey Decimal Classification System*. Oxford: Chandos Publishing.
- Satija, M. P. (2012). *Exercises in the 23rd edition of Dewey Decimal Classification*.
- Sharma, P. S. K. (1998). *Practical approach to DDC: Dewey Decimal Classification made easy*. New Delhi: Ess Ess.
- Singh, K. P. (2013). *UDC: A manual for classification practical and information resources*. New Delhi: Today & Tomorrow's Printers and Publishers.
- Slavic, A., Civallero, E., & The International UDC seminar. (2011). *Classification & ontology: Formal approaches and access to knowledge : proceedings of the international UDC seminar 19-20 September 2011, The Hague, The Netherlands, organized by UDC Consortium, The Hague*. Würzburg: Ergon.

Second Semester

Core Course

Course Code : **LIS-203**

Course Title : **Document Cataloguing**

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-203	Document Cataloguing	Core	5 Credit	0	2	4	40	10	50

Unit-1 Introduction

- Entries related with AACR II – main entry, added entry, reference entry, analytical entry;
- AACR II – structure and rules (description and access points);
- Entries related with CCC;
- CCC – structure and rules;
- Filling rules related with AACR entries and CCC entries;

Unit-2 CCC 5th edition – Rules for description

- Simple books, Multi-volume books and Composite books;
- Government documents and reports;
- Serials and Conference proceedings;
- Special materials;
- Other forms.

Unit-3 CCC 5th edition – Rendering of access points

- Personal authors;
- Corporate authors;
- Title;
- Conflict of authorship;
- Subject access through Chain indexing.

Unit-4 AACR II – Rules for description

- Monographs, Multi-volume books and composite books;
- Government documents and reports;
- Serials and Conference proceedings;
- Cartographic materials, Special materials and Electronic resources;
- Other forms.

Unit-5 AACR II – Rendering of access points

- Persons;
 - Corporate bodies;
 - Title;
 - Conflict of authorship;
 - Subject access by Sears List of Subject Headings.
-

Second Semester

Core Course

Course Code : **LIS-203**
Course Title : **Document Cataloguing**

Reading List

- Clack, D. H. (1990). *Authority control: Principles, applications, and instructions*. Chicago: American Library Association.
- Hasan, N. (1984). *Cataloguing practice: According to classified catalogue code (Ed 5)*. New Delhi: Gitanjali Pub. House.
- Hoffmann, C. F. B. (1980). *Getting ready for AACR 2: The cataloger's guide*. White Plains, NY: Knowledge Industry Publications.
- Hunter, E. J. (1979). *AACR 2: An introduction to the second edition of Anglo-American cataloguing rules*. London: C. Bingley.
- Hunter, E. J., & Fox, N. J. (1980). *Examples illustrating AACR 2: Anglo-American cataloguing rules second edition*. London: Library Association.
- Hunter, E. J. (1989). *An introduction to AACR 2: A programmed guide to the second edition of the Anglo-American cataloguing rules, 1988 revision*. London: C. Bingley.
- Hunter, E. J. (1989). *Examples illustrating AACR 2 1988 revision*. London: Library Association.
- IFLA International Programme for UBC. (1984). *Guidelines for authority and reference entries*. London: IFLA International Programme for UBC.
- Lehnus, D. J. (1971). *How to determine author and title entries according to AACR: An interpretive guide with card examples*. Dobbs Ferry, N.Y: Oceana Publications.
- Maxwell, Robert and Maxwell, Margaret F. (1997). *Maxwell s handbook of AACR2R: Explaining and illustrating the Anglo American Cataloguing Rules and the 1993 amendments*. Chicago: ALA.
- Olson, N. B., Intner, S. S., & Swanson, E. (1992). *Cataloging of audiovisual materials: A manual based on AACR 2*. DeKalb, Ill: Minnesota Scholarly Press.
- Olson, N. B., Swanson, E., & Intner, S. S. (1985). *Cataloging of audiovisual materials: A manual based on AACR 2*. Mankato, Minn: Minnesota Scholarly Press.
- Parameswaran, M. (1988). *Headings and access points for personal authors and corporate bodies: A comparative study of the Anglo-American Cataloguing Rules (2nd ed.) and the Classified Catalogue Code (5th ed.)*. Thesis (MSc) -- Loughborough University of Technology.
- Ranganathan, S. R., & Neelameghan, A. (1964). *Classified Catalogue Code, with additional rules for dictionary catalogue code*. 5th ed. London: Asia Pub. House.
- Rogers, J. A. V., & Saye, J. D. (1987). *Nonprint cataloging for multimedia collections: A guide based on AACR 2*. Littleton, Colo.: Libraries Unlimited.
- Salinger, F. A., & Zagon, E. (1985). *Notes for catalogers: A sourcebook for use with AACR 2*. White Plains, NY: Knowledge Industry Publications.
- Sharma, C. D. (1973). *Classified catalogue code in theory and practice*. Delhi: Metropolitan Book Co.

Sharma, C. D., & Ranganathan, S. R. (1972). *Practical cataloguing, classified catalogue*. Delhi: Metropolitan Book Co.

Singh, S. N., & Prasad, H. N. (1985). *Cataloguing manual AACR-II*. New Delhi: B.R. Pub.

Swanson, E., & Minnesota AACR 2 Trainers. (1982). *A Manual of advanced AACR 2 examples*. Lake Crystal, Minn.: Published for the Minnesota AACR 2 Trainers by Soldier Creek Press.

Swanson, E., & Minnesota AACR 2 Trainers. (1985). *A manual of AACR 2 examples for "in" analytics: With MARC tagging and coding*. Lake Crystal, Minn.: Published for the Minnesota AACR 2 Trainers by Soldier Creek Press.

Swanson, E., McClaskey, M. J., & Minnesota AACR 2 Trainers. (1980). *A Manual of AACR 2 examples*. Lake Crystal, Minn.: Soldier Creek Press.

Taylor, A. G. (1982). *AACR 2 headings: A five-year projection of their impact on catalogs*. Littleton, Colo.: Libraries Unlimited.

Varma, A. K. (1987). *Classified catalogue code: Entries and procedure*. Delhi: Vishwa-Kala Prakashan.

Welsh, A., & Batley, S. (2012). *Practical cataloguing: AACR, RDA and MARC 21*. Chicago: Neal-Schuman, an imprint of the American Library Association.

Second Semester

Core Course

Course Code : LIS-204

Course Title : Content Designation and Metadata Encoding

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-204	Content Designation and Metadata Encoding	Core	5 Credit	3	1	2	40	10	50

Unit-1 Introduction to Content Designation

- Machine-readable cataloguing and Content designation – definition, scope, objectives, advantages and application in bibliographic data management;
- Role of content designation in bibliographic data exchange;
- Content designation standards – Physical standards (ISO-2709, Z 39.2, MARC-XML etc.);
- Content designation and Logical standards (ISBDs, AACR, FRBR, FRAD, FRSAD etc);

- Content designation standards – Framework standards (CCF, UNIMARC and MARC 21 family of standards etc.).

Unit-2 Bibliographic Data Formats

- Scope, objectives, nature and features of bibliographic data formats;
- Common Communication Formats: CCF/B and UNIMARC;
- MARC 21 bibliographic data format;
- Comparison of CCF, UNIMARC and MARC 21 bibliographic formats;
- Distributed cataloguing (Z 39.50 and SRU/SRW protocols and services).

Unit-3 Authority Data Formats

- Authority data and Authority lists – what, why, types and use;
- Definition, scope, objectives and use of authority data format;
- Authority lists and their integration with library catalogue;
- MARC 21 authority data format;
- FRAD and FRSAD model.
- VIAF – Overview and functional procedures

Unit-4 Generic Metadata Schemas

- Metadata - what, why, types and use;
- Metadata models and Best practice guidelines;
- Generic metadata schema – Dublin Core (Simple and Qualified);
- Metadata encoding – rules and standards;
- RDF, XML and Metadata schemas.

Unit-5 Domain-specific Metadata Schemas

- Need, advantages and use of domain-specific metadata schemas;
- Metadata schemas in different domains;
- Learning object domain – GEMS, IEEE-LOM, CanCore;
- VRA Core Framework for Libraries;
- ETD domain – ETD-MS, UKETD, NDLTD, OATD, BASE, CORE, PQDT Open, Shodhganga, and etc;
- Other domains – Geographical data, Music, Image, News items, Publishing, Science etc.

Unit-6 Practical Components

- CCF/B and MARC 21 bibliographic format;
- VRA Core Metadata Formats and elements;
- Authority lists and MARC 21 authority format;
- Dublin Core – Simple & Qualified and Selected domain-specific metadata schemas;
- Use of WINISIS, MARCEdit, Cataloguing editors, and Metadata editors in application of above standards.
- Data Conversion and data migration

Second Semester

Core Course

Course Code : **LIS-204**

Course Title : **Content Designation and Metadata Encoding**

Reading List

- Aalberg, T., Merčun, T., & Žumer, M. (January 01, 2011). Coding FRBR-structured bibliographic information in MARC. *Digital Libraries*.
- Cathy, W., & Jia, M. (January 01, 2006). Towards accessibility to digital cultural materials: a FRBRized approach. *OCLC Systems & Services: International Digital Library Perspectives*, 22, 3, 217-232.
- Delsey, T., & Library of Congress. (2002). *Functional analysis of the MARC 21 bibliographic and holdings format*. Washington, D.C.: Network Development and MARC Standards Office.
- Doerr, M., Riva, P., & Žumer, M. (January 01, 2013). FRBR entities: Identity and identification. *The FRBR Family of Conceptual Models*, 163-187.
- Hjelm, J. (2001). *Creating the semantic Web with RDF: Professional developer's guide*. New York: Wiley.
- Hopkinson, A., Hopkinson, A., Unesco., & UNISIST (Program). (1993). *Implementation notes for users of the common communication format for bibliographic information (CCF/B)*. Paris: General Information Programme and UNISIST, United Nations Educational, Scientific and Cultural Organization.
- Jones, W., Ahronheim, J. R., & Crawford, J. (2002). *Cataloging the Web: Metadata, AACR, and MARC 21*. Lanham, Md: Scarecrow Press.
- Library of Congress. (2000). *MARC 21 concise formats*. Washington, D.C: Library of Congress, Cataloging Distribution Service.

- Library of Congress. (2003). *Metadata encoding & transmission standard*. Washington, DC: The Office.
- Library of Congress & National Library of Canada. (1999). *MARC 21 format for authority data: Including guidelines for content designation*. Washington: Library of Congress, Cataloging Distribution Service.
- Library of Congress & National Library of Canada. (2000). *MARC 21 format for classification data: Including guidelines for content designation*. Washington: Library of Congress, Cataloging Distribution Service.
- Library of Congress, Library and Archives Canada, British Library, & National Library of Canada. (2000). *MARC 21 format for holdings data: Including guidelines for content designation*. Washington: Library of Congress, Cataloging Distribution Service.
- Library of Congress, Library and Archives Canada, British Library, National Library of Canada, & British Library. (1999). *MARC 21 format for bibliographic data: Including guidelines for content designation*. Washington: Library of Congress, Cataloging Distribution Service.
- Library of Congress, Library and Archives Canada, British Library, National Library of Canada, & British Library. (2000). *MARC 21 format for community information: Including guidelines for content designation*. Washington: Library of Congress, Cataloging Distribution Service.
- Liu, J. (2007). *Metadata and its applications in the digital library: Approaches and practices*. Westport, Conn.: Libraries Unlimited.
- Miller, S. J. (2011). *Metadata for digital collections: A how-to-do-it manual*. New York: Neal-Schuman Publishers.
- Mukhopadhyay, A. (2007). *Guide to MARC 21: For cataloging of books and serials: with functional definitions, examples, and working resources*. Oxford, England: Chandos Publishing.
- Simmons, P. (1984). *The Common Communication Format: CCF*. Paris: Unesco.
- Simmons, P. A., Hopkinson, A., Unesco., & UNISIST. (1984). *CCF, the Common Communication Format*. Paris: United Nations Educational, Scientific, and Cultural Organization.
- Simmons, P., Hopkinson, A., Unesco., & UNISIST. (1992). *CCF/B: The common communication format for bibliographic information*. Paris: Unesco.
- Smiraglia, R. P. (2005). *Metadata: A cataloger's primer*. Binghamton, NY: Haworth Information Press.
- Welsh, A., & Batley, S. (2012). *Practical cataloguing: AACR, RDA and MARC 21*. Chicago: Neal-Schuman, an imprint of the American Library Association.
- Willer, M., & Dunsire, G. (2013). *Bibliographic Information Organization In The Semantic Web*. Burlington: Elsevier Science.
- Žumer, M., Zeng, M. L., & Salaba, A. (2010). *FRBR: A generalized approach to Dublin Core application profiles. (Pittsburgh proceedings, 21-30.)*

Second Semester

Core Course

Course Code : LIS-205

Course Title : Information Systems and Users

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-205	Information Systems and Users	Core	5 Credit	4	2	0	40	10	50

Unit-1 Information Systems

- Information System: Objectives, Scope, Characteristics, Features and Components, Types and Categories (Mission-oriented, Disciple-oriented and Problem-oriented), Library as an information system;
- Information System: General System Theory, Design issues and principles, Information Systems and Networking: Meaning, Importance and Structure, Design and development of information systems – theories, models and steps;
- Structure and Services of Global and Regional Information Systems and Networks like UNISIST, AGRIS, INIS, DEVSIS, MEDLARS / MEDLINE, INFOTERRA, HELLIS, APINMAP, OCLC Inc., DIALOG, etc.;
- Structure and Services of National Information Systems and Networks like INFLIBNET, INDEST, UGC-Infonet, DELNET, BTIS and ENVIS;
- Evaluation of Information Systems.

Unit-2 Information Institutions

- Information Institutions: Evolution, growth and role in information transfer cycle;
- Information centres: types, activities and their organization;
- Data Centres & Data Banks: Activities and services;
- Referral Centres and Clearing Houses, Information Analysis Centres: Activities, services and products;

- Role of International organizations in the development of systems and services: IFLA, UNESCO, FAO, UNEP, UNDP, FID, CILIP, etc.

Unit-3 Library Networking and Consortia

- Resource sharing and Library Networking: Need, structure and management;
- Global Library Networks – their objectives, scope, structure and services: OCLC, RLIN, WLN, BLAISE, etc;
- Indian Library Networks – their objectives, scope, structure and services: INFLIBNET, DELNET, etc.;
- Library consortia: Scope, Need, Objectives, Functions, Features and Services;
- Global and Indian library consortia initiatives: (ICOLC, SPARC, INDEST, UGC-Infonet, FORSA, NKRC etc.

Unit-4 Information Consolidation and Repackaging

- Meaning, Purpose, Value and benefits of Information Consolidation, Levels of Information Analysis, Packaging and Repackaging of Information. Packaging media and formats;
- IA+C Products: Newsletters, State-of-the-art reports, Reviews, Trend reports and Technical digests, and other IA+C products;
- Dissemination Channels: Interpersonal delivery, group delivery, strategic placement, in-house delivery, local depository, mass media, mail, telephone, and computer networks;
- Users of IA+C products, Role of various specialists in Design and Development of Information Consolidation Products;
- **Methodology for preparation of IA+C Products, Information Consolidation Unit (ICU).**

Unit-5 Information Users

- Users and Non-users : Characteristics, Categories of Information Users;
- Users in Different types of Libraries and Information Centres;
- Users' Study : Types and Techniques;
- Information Needs: Definition, models and different approaches, Information Seeking Behaviour (theories and models);
- User Education: Objectives, Types and Programmes, Information literacy.

Second Semester

Core Course

Course Code : LIS-205
Course Title : Information Systems and Users

Reading List

- Atherton, P. (1977). *Handbook for information systems and services*. Paris: Unesco.
- Barua, B. P. (1992). *National policy on library and information systems and services for India: Perspectives and projections*. Bombay: Popular Prakashan.
- Bawden, D. (1990). *User-oriented evaluation of information systems and services*. Aldershot: Gower.
- Chaddha, K. (January 01, 2014). *Marketing of Library and Information Products and Services*.
- Chatterjee, Amitabha (2013). *Elements of information analysis, consolidation and repackaging (IACR)*. Kolkata: Prova Prakashani.
- Checkland, P., & Holwell, S. (1998). *Information, systems, and information systems: Making sense of the field*. Chichester: Wiley.
- Chowdhury, G. G., & Chowdhury, S. (2011). *Information users and usability in the digital age*. New York: Neal-Schuman Publishers, Inc.
- Choukhande, V. G. (2008). *Information needs and information seeking behaviour: Library and information science research*. Amravati, India: Shivneri Publisher
- Cochrane, P. A. (1977). *Handbook for information systems and services*. Paris: Unesco.
- Guinchat, C., Menou, M., & Unesco. (1983). *General introduction to the techniques of information and documentation work*. Paris: Unesco.
- Hayes, R. M. (1974). *The national library network: its economic rationale & funding*. Washington: National Commission on Libraries and Information Science.
- International Atomic Energy Agency. (1979). *Orientation manual for INIS and AGRIS*. Vienna: International Atomic Energy Agency.
- Kruzas, A. T., & Sullivan, L. V. (1978). *Encyclopedia of information systems and services: A guide to information storage and retrieval services, data base producers and publishers, online vendors*. Detroit: Gale Research Co.
- Kumar, P. S. G. (2004). *Information analysis, repackaging, consolidation & information retrieval: Paper X and XI of UGC model curriculum*. Delhi: B.R. Publishing Corporation.
- Lancaster, F. W. (1978). *Guidelines for the evaluation of information systems and services*. Paris: Unesco.
- Lancaster, F. W. & Smith, L. C. (1983). *Compatibility issues affecting information systems and services*. Paris: Unesco, PGI & UNISIST.
- Lancaster, F. W. (1978). *Toward paperless information systems*. New York: Academic Press.
- Martin, J. (1984). *An information systems manifesto*. Englewood Cliffs, NJ: Prentice-Hall.
- Organisation for Economic Co-operation and Development. (1971). *Inventory of major information systems and services in science and technology*. Paris: OECD.

- Saracevic, T. (1986). *A course in information consolidation: a handbook for education and training in analysis, synthesis and repackaging of information (preliminary version)*. Paris: Unesco, PGI and UNISIST.
- Saracevic, T. & Wood, J. B. (1981). *Consolidation of information: A handbook on evaluation, restructuring, and repackaging of scientific and technical information*. Paris: Paris: Unesco, PGI and UNISIST.
- Seetharama, S. (1997). *Information consolidation and repackaging: Framework, methodology, planning*. New Delhi: Ess Ess Publications.
- Singh, Sewa. (2014). *Information analysis, consolidation and repackaging*. New Delhi: Atlantic Publishers & Distributors.
- Society of Management Accountants of Canada. (1993). *Information systems and services management, accountability*. Hamilton, Ont.: Society of Management Accountants of Canada.
- UNESCO. (1981). *Guidelines on studies of information users: (pilot version)*. Paris: Unesco.
- UNISIST International Symposium on Information Systems and Services in Ongoing Research in Science, Unesco, & Smithsonian Science Information Exchange. (1976). *UNISIST International Symposium on Information Systems and Services in Ongoing Research in Science: Proceedings*. Budapest: Hungarian Central Technical Library and Documentation Centre (Distributed by OMKDK-Technoinform).
- Weisman, H. M. (1972). *Information systems, services, and centers*. New York: Becker and Hayes.

Third Semester

Core Course

Course Code : LIS-301

Course Title : Information Communication and Management

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-301	Information Communication and Management	Core	5 Credit	4	2	0	40	10	50

Unit-1 Introduction to Information Science

- Information and knowledge: Definition, kinds, attributes, sources, use;
- Conceptual relation between data, Information, knowledge and wisdom;
- Process of Cognition: views and methodologies;
- Information Science: Origin and development, scope and coverage, relationship with other disciplines and professions;

Unit-2 Information Communication and Society

- Information Communication: Types, Models, Barriers, Process and Theories, Information transfer process - Generation to Utilisation
- Information Society: Social implications; Genesis; Changing role of information institutions and information professionals;
- Information Policies: National and International plans, policies and programmes relating to information for development with special reference to India and developing countries;
- Politics of information: Universal data flow, Free flow of information vs. New world information communication order, Information poverty, Digital divide;
- Recent trends in Information Communication

Unit-3 Economics and Marketing of Information

- Economics of information: Concept, scope and objectives; Information as a commodity,
- Information economics vs. Economics of information;
- Theories and Models: Demand and supply of information; Economic principles relevant to information,
- Production, distribution and consumption of information and knowledge, Machlup's model;
- Marketing of information product and services, Planning, process and strategies, Economic analysis models, cost-benefit analysis and cost effectiveness, Market research;

Unit-4 Information and Knowledge Management

- Document management vs. Information management vs. Knowledge management;
- Information Industry
- Knowledge society and Knowledge economics,
- Knowledge Management: Concepts, tools, data and text mining.

Unit-5 Information Literacy

- Definition: Information Literacy, Computer Literacy, E-Literacy
- Information Literacy: Skills and Competencies
- Information Literacy and Bridging the Digital Divide
- Policies and Guidelines: UNESCO, IFLA and ALA

Third Semester

Core Course

Course Code : LIS-301
Course Title : Information Communication and Management

Reading List

- Bawden, David & Robinson, Lyn (2012). *Foundations of information science*. London: Facet Publishing.
- Bell, D. (1980). *The social framework of the information society*. In Derrouzos M C & Moses,L. (eds), *The computer age: a twenty year view*. Cambridge: MIT Press.
- Benjamine, J.B. (1986). *Communication: concept and contexts*. New York: Harper & Row.
- Dearnley, J. & Feather, J. (2001). *The wired world: an introduction to the theory and practice of the information society*. London: Library Association.
- Debons, Anthony and Larson, Arvid G., Ed. (1983). *Information science in action: system design*. 2 vols. Boston: Martinus Nijhoff Publishers.
- Delanty, G. (2001). *Challenging knowledge: the university in the knowledge society*. Open University Press.
- Dordick, H.S. & Wang, G. (1993). *The information society: a retrospective view*. Newbury Park, CA: Sage.
- Drucker, P. (1998). From capitalism to knowledge society. *The knowledge economy*, 15-34.
- Feather, J. (2008). *The information society: a study of continuity and change*. 5th ed. London: Facet Publishing.
- Gilchrist, Alan, Ed. (2009). *Information science in transition*. London: Facet Publishing.
- Machlup, F. (1984). *The economics of information and human capital*. Princeton: Princeton University Press.
- Martin, W. J. (1995). *The global information society*. Brookfield, VT: Gower.
- McGarry, K. J. (1993). *The changing concept of information: an introductory analysis*. (2nd. ed.). London: Facet Publishing.
- Masuda, Y. (1980). *The information society as post-industrial society*. Washington, D.C.: World Future Society.
- Salvaggio, J.L. (1989). *The information society: economic, social, and structural issues*. Hillsdale, NJ: Lawrence Erlbaum.
- SinghaRoy, D. K. (2014). *Knowledge society: new identities in emerging India*. New York: Cambridge University Press.
- Taragowski, A.S. (1998). *Global information infrastructure: the birth, vision and architecture*. Harrisburg: Idea Group.

Vickery B. C. & Vickery A. (1987). *Information science in theory and practice*. London: Butterworth.

Webster, F. (2002). *Theories of the information society*. 2nd Ed. London: Routledge.

Third Semester

Core Course

Course Code : LIS-302

Course Title : Information Retrieval

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-302	Information Retrieval	Core	5 Credit	4	2	0	40	10	50

Unit-1 Introduction to Information Retrieval System

- Information Retrieval (IR) – meaning, history and development, differences with data retrieval;
- IR Systems - meaning, purpose, functions, operational stages, components, and kinds;
- Digital IR systems, Multilingual/Cross-lingual IR and Multimedia IR;
- Designing IR Systems;
- Query representation and IR – retrieval techniques (Boolean, Relational, Positional operators, Fuzzy search) and retrieval approaches (building-block, snowballing, successive fraction approach, most specific facet approach, convenient approach);

Unit-2 Subject Indexing: Principles and Practices

- Subject Headings: Contributions of Cutter, Kaiser, Ranganathan, Farradane, Coates, Austin, and Bhattacharyya;
- Derived and Assigned Indexing
 - Derived indexing system: printed (keyword and citation indexing) and automatic/full-text indexing (MGPP, Lucene, HTDig etc.);
 - Assigned indexing system (Syntax): Pre-coordination and Post-coordination;

- Pre-coordinate indexing system: Chain, PRECIS, POPSI, COMPASS, etc;
- Post-coordinate indexing system: Computerized indexing system, Database Vs. Card based (Item entry and Term entry) systems, Tools for improving Post-coordinate retrieval (Links, Roles, and Weights);
- Intelligent IR and NLP – concept and applications.

Unit-3 Indexing Languages and Vocabulary Control

- Indexing Languages: generations, types, and characteristics;
- Natural Language Indexing Vs. Controlled Language Indexing, Problems of Assigned indexing (Semantics);
- Vocabulary Control: need, purpose, tools (alphabetical and classed);
- IR Thesaurus: structure, standards (ISO-2788, ISO-25964-1 and ISO-25964-2), SKOS compatibility;
- Design and development of integrated on-line thesaurus: tools and methods.

Unit-4 Digital IR Systems

- Digital IR – types, features, file design and organization;
- IR models - Boolean logic model, Vector space model, Probability model, Cognitive model, Natural language model;
- Digital IR types - On-line IR, Optical-disk based IR, OPAC and Web IR;
- Multiple database searching, Common Command Language, NISO and ISO standards, Multi-lingual/Cross-language information retrieval systems and projects;
- Web IR: Meaning scope & characteristics, Models and standards, Operational aspects of the Web, Web Indexing, Search Engines, Meta Search Engines, Subject Directories, Subject Gateways, Institutional/Subject Repositories, Digital Libraries, Text retrieval engines, Semantic Web.

Unit-5 IR Systems – Users, Evaluation and Trends

- Users: Nature, Types of information needs, Information seeking behaviour (ASK, Sense-making etc);
- Meaning, Purpose, and Levels of IR Evaluation (System effectiveness, Cost effectiveness, Cost benefit evaluation), Evaluation – measures, criteria and methodology;
- Evaluation initiatives (Cranfield 1 and 2, SMART, MEDLARS Test, STAIRS, TREC experiments, FIRE etc.);
- Recent developments and Future trends in IR.

Third Semester

Core Course

Course Code : LIS-302
Course Title : Information Retrieval

Reading List

- Aitchison, J., Gilchrist, A. & Bawden, D. (2000). *Thesaurus construction and use: a practical manual*. 4th ed. London: Aslib.
- Anderson, James D. (1997). *Guidelines for indexes and related information retrieval devices: a technical report*. Bethesda, Maryland: National Information Standard Organization.
- Baeza-Yates, R. & Ribeiro-Neto, Berthier (1999). *Modern information retrieval*. New York: ACM Press; Harlow, England: Addison-Wesley.
- Bawden, D. (2007). Information seeking and information retrieval: the core of the information curriculum. *Journal of Education for Library and Information Science*, 48 (2), pp.125-138.
- Ceri, S., Bozzon, A., Brambilla, M., Della Valle, E., Fraternali, P. & Quarteroni, S. (2013). *Web information retrieval*. Heidelberg: Springer.
- Chu, H. (2003). *Information representation and retrieval in the digital age*. Medford, N.J: Published for the American Society for Information Science and Technology by Information Today.
- Chowdhury, G. G. (2010). *Introduction to modern information retrieval*. 3rd ed. London, Facet Publishing.
- Foskett, A. C. (1996). *Subject approach to information*. 5th Ed. London: The Library Association.
- Fugmann, R.: *Subject analysis and indexing: theoretical foundation and practical advice*. Frankfurt: Verlag, 1983.
- Ghosh, S. B. and Satpathi, J. N., Eds. (1998). *Subject indexing systems: concepts, methods and techniques*. Calcutta. IASLIC.
- Gilchrist, A.: *From classification to knowledge organization*, 1997.
- Hyvönen, E. (2012). *Publishing and using cultural heritage linked data on the semantic Web*. San Rafael, Calif: Morgan & Claypool Publishers.
- ISO 2788:1986. *Guidelines for the establishment and development of monolingual thesauri*. Geneva: International Organization for Standardization.
- International Organization for Standardization. (2013). *Information and documentation: Thesauri and interoperability with other vocabularies*. Geneva: ISO.
- Lancaster, F. W. (1998). *Indexing and abstracting in theory and practice*. 2nd ed. Champaign, Illinois: University of Illinois.
- Lancaster, F. W. (1979). *Information retrieval systems: characteristics, testing, and evaluation*. 2nd ed. New York, John Wiley.
- Lancaster, F.W. (1986). *Vocabulary control for information retrieval*. 2nd ed. Arlington, VA: Information Resources.
- Manning, Christopher D., Raghavan, Prabhakar & Schütze, Hinrich. (2008): *Introduction to Information Retrieval*. New York: Cambridge University Press.

- Meadow, C.T., Boyce, B.R. & Kraft, D.H. (2000). *Text information retrieval systems*. 2nd ed. Arlington, VA: Information Resources Press.
- Nie, J.-Y. (2010). *Cross-language information retrieval*. San Rafael, Calif: Morgan & Claypool.
- Peters, C., Braschler, M., & Clough, P. (2012). *Multilingual information retrieval: from research to practice*. Heidelberg: Springer.
- Rasmussen, E. (2003). Indexing and retrieval for the web. *Annual Review of Information Science and Technology*, 37, 91–124. Medford, NJ: Information Today Inc.
- Rüger, Stefan M. (2010). *Multimedia information retrieval*. San Rafael, Calif.: Morgan & Claypool.
- Salton, G. and McGill, Michael J. (1983). *Introduction to information retrieval*. New York: McGraw-Hill.
- Sarkhel, Juran Krishna (2001). *Information analysis in theory and practice*. Kolkata: Classique Books, 2001.
- Sparck Jones, Karen, Ed. (1981). *Information retrieval experiment*. London, Butterworth.
- Sparck Jones, K., & Willett, P. Ed. (1997). *Readings in information retrieval*. San Francisco, Calif: Morgan Kaufman.
- Svenonius, E. (2000). *The intellectual foundation of information organization*. Cambridge: MIT Press.
- Taylor, Arlene G. (2004). *The organization of information*. 2nd ed. Westport, CT: Libraries Unlimited.
- Vickery, B. C. (1986). Knowledge representation: a brief review. *Journal of Documentation*, 42 (3), pp.145-159.

Third Semester

Major Elective

Course Code : LIS-303A

Course Title : Automated Library System

Major Elective -I									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-303A	Automated Library System	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Introduction to Library Automation

- Library automation – what, why, advantages;
- Historical development and generation of library automation;
- Integrated Library System (ILS) - general requirements, steps and implementation;
- Global recommendations and best practice guidelines (OLE, ILS-DI etc);
- Role of standards and software;
- RFP (Request For Proposal) for library automation.

Unit-2 Workflow of Automated Library System

- Library system and subsystems;
- Procedural model of library automation;
- Software-level requirements for automation workflow;
- Recommendations and best practices;
- Multilingual automated library system.

Unit-3 Components of Automated Library System

- Acquisition subsystem;
- Cataloguing subsystem;
- Circulation subsystem;
- Serials control subsystem;
- User interface subsystem (OPAC, Web-OPAC, OPAC 2.0), Administration;

Unit-4 Standards related to Library Automation

- Library standards – features, scope, objectives, types and advantages;
- Library automation standards – global and national;
- Integration of PDF Flip Book Reader in Library OPAC
- Interoperability and other essential standards of library automation;
- Google Indic Transliteration in Library OPAC;
- Trends and future of standards applications.

Unit-5 Software related to Library Automation

- Library automation software – generations and development, functional requirements, and global recommendations ;
- ILSs available in India – types and features;
- Open source software in library automation;
- Trends and future of library automation software – Web-scale discovery, Linked open data, Cloud based library automation, Library mashup etc.

Unit-6 Practical Components

- ILSs – installation, configuration and customization;
- ILSs - subsystems/modules – acquisition, cataloguing, circulation, serials control and administration;
- Multilingual data processing and retrieval;
- Geographic Map Enabled searching in ILS OPAC.
- Web-OPAC, OPAC 2.0 and integration of Koha with VuFind;
- Backup, restoration and privilege control.

Third Semester

Major Elective

Course Code : LIS-303A
Course Title : Automated Library System

Reading List

- Anuradha, K.T., & Savanur, Kiran P. (2010). *Installing newgenlib: open source library automation package*. (SRELS Journal of Information Management, 2010, Vol.47, p621.) Sarada Ranganathan Endowment for Library Science.
- Ayres, F. H., Ridley, M., Nielsen, L. P. S., & British Library. (1998). *The Bradford OPAC 2: Managing and displaying retrievals from a distributed search in Z39.50*. Boston Spa: British Library Research and Innovation Centre.
- Breeding, M. (2009). *Opening up library systems through web service and SOA: Hype, or reality?*. Chicago: ALA TechSource.
- Breeding, M. (2010). *Next-gen library catalogs*. New York: Neal-Schuman Publishers.
- Breeding, M., & ALA TechSource. (2008). *Open source integrated library systems*. Chicago, IL: American Library Association.
- Breeding, M., & Library and Information Technology Association (U.S.). (2012). *Cloud computing for libraries*.
- Clarke, Dougan & Associates. (1988). *Library automation feasibility study: Final report*. Waterloo, Ont.: The Associates.
- Crawford, W., & Gorman, M. (1995). *Future libraries: Dreams, madness & reality*. Chicago: American Library Association.
- Haravu, L. J. (2004). *Library automation design principles and practice (with CD-ROM) /by L.J. Haravu*. New Delhi: Allied Publishers.
- James E. Rush Associates. (1983). *Library systems evaluation guide*. Powell, Ohio: James E. Rush Associates.
- Kochtanek, T. R., & Matthews, J. R. (2002). *Library information systems: From library automation to distributed information access solutions*. Westport, Conn: Libraries Unlimited.
- Library and Information Technology Association (U.S.). (2002). *Open source software for libraries: An open source for libraries collaboration*. Chicago: LITA.
- Mandal, S. (2019). Designing Geographic Map Enabled Search Interface in Koha OPAC. *Library Philosophy and Practice* (e-journal), retrieved from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article>.
- Mandal, S. (2020). *Power of Koha for Library Automation*. LAP Lambert Academic Publishing, Germany: LAP.
- Morris, A., & Dyer, H. (1998). *Human aspects of library automation*. Brookfield, Vt: Gower.
- Mukhopadhyay, P. (2005.). *Library automation – software packages*. Unit 6 **In** MLIS – MLII-104 (ICT Applications – Part I), New Delhi: IGNOU.
- Mukhopadhyay, P. (2005). *Introduction to Library Automation*. Unit 1 **In** CICTAL – BLII-003 (Library Automation and Digitization), New Delhi: IGNOU.

- Mukhopadhyay, P. (2006). *Five laws and ten commandments: The open road of library automation in India*. (Proceedings of the National Seminar on Open Source Movement - Asian Perspective, XXII, IIT Roorkee, 2006. IASLIC, Kolkata. 2006. p. 27-36.) IASLIC.
- Mukhopadhyay, P. (2008). *Library automation through Koha*. Kolkata: Prova Prakashani.
- Mukhopadhyay, P. (2014). Library automation processes. Unit 2 *In* BLIS – Course 9 (ICT in Libraries), New Delhi: IGNOU.
- Murphy, F. J., Pollitt, A. S., & White, P. R. (1991). *Matching OPAC user interfaces to user needs*. Huddersfield: The Polytechnic of Huddersfield.
- Pitkin, G. M. (1991). *The Evolution of library automation: Management issues and future perspectives*. Westport, CT: Meckler.
- Singh, M., & Sanaman, G. (December 01, 2012). Open source integrated library management systems: Comparative analysis of Koha and NewGenLib. *Electronic Library*, 30, 6, 809-832.
- Sirohi, S., & Gupta, A. (2010). *Koha 3 library management system*. Birmingham: Packt Pub.
- Texas State Library. (1995). *Library automation standards and guidelines*. Austin, Tex: Texas State Library, Library Development Division.
- Tramullas, J., & In Garrido, P. (2013). *Library automation and OPAC 2.0: Information access and services in the 2.0 landscape*. Hershey, Pa: Information Science Reference.
- Winnebago Software Company. (1993). *Guide to library automation: A step-by-step introduction*. Caledonia, MN: Winnebago Software Co.

Third Semester

Major Elective

Course Code : LIS-303B

Course Title : Digital Resource Management

Major Elective -I									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-303B	Digital Resource Management	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Introduction to Digital Information Resources

- Definition, scope, features and advantages of digital information resources;
- Types of digital information resources and traditional vs. digital information resources;
- Management and integration of digital information resources (including open access resources);
- Socio-legal aspects of digital information resources (copyright, DRM, other IPR issues, licensing issues);
- Use of knowledge organization tools in managing digital information resources.

Unit-2 Text Retrieval Engines and Retrieval Support Tools

- Text retrieval engines – scope, features and utilities;
- Retrieval features of selected text retrieval engines – Apache-Solr, Lucene, MGPP and Zebra;
- Application of text retrieval engines in software and services;
- Online thesaurus – development and integration, Ontology-driven retrieval – rules and tools;
- Search techniques – advanced operators and facilities.

Unit-3 Content Management System

- Content Management – what, why, types and use;
- Use of Mark-up languages in content management (SGML, HTML, XML and XHTML);
- Content management – principles, models, workflows and best practices;
- Content management software;
- Managing open contents and learning contents.

Unit-4 Web 2.0 and Library 2.0

- Web 2.0 - what, why, components and use;
- Web 2.0 tools and technologies;
- Library 2.0 – application of Web 2.0 tools in library services;
- Web 3.0 and Web 4.0 – Basic concepts
- Information mashup;
- Trends and future.

Unit-5 Semantic Web Technologies

- Semantic Web – what, why, nature and features;
- Semantic Web – components, tools and technologies;
- RDF, XML and Semantic Web;
- Ontology as Semantic Web tool, Use of SKOS in knowledge organization;
- Linked Open Data (LOD) and Big Data.

Unit-6 Practical Components

- Markup languages – HTML and XML;
- Text retrieval engines;
- Online thesaurus (TemaTres, MultiTes etc), SKOS and Ontology Editors.
- CMS software – CMS and their integration with ILS, Learning Content Management System (LCMS);
- Web 2.0 and Library 2.0– RSS, Wikimedia, Blog, Social networking, Social bookmarking, Carousel etc;

Third Semester

Major Elective

Course Code : LIS-303B
Course Title : Digital Resource Management

Reading List

- Akerkar, R. (2009). *Foundations of the Semantic Web: XML, RDF and ontology*. Oxford, U.K: Alpha Science International.
- Arthur, M. H. (2006). *Expanding a digital content management system: For the growing digital media enterprise*. Amsterdam: Elsevier Focal Press.
- Berry, M. W., & Browne, M. (2005). *Understanding search engines: Mathematical modeling and text retrieval*. Philadelphia, PA: SIAM, Society for Industrial and Applied Mathematics.
- Casey, M. E., & Savastinuk, L. C. (2007). *Library 2.0: A guide to participatory library service*. Medford, N.J: Information Today.
- Chamis, A. Y. (1991). *Vocabulary control and search strategies in online searching*. New York: Greenwood Press.
- Chin, A. G. (2001). *Text databases and document management: Theory and practice*. Hershey, Pa: Idea Group Pub.
- Courtney, N. (2007). *Library 2.0 and beyond: Innovative technologies and tomorrow's user*. Westport, Conn: Libraries Unlimited.
- Croft, W. B., Metzler, D., & Strohman, T. (2010). *Search engines: Information retrieval in practice*. Boston: Addison-Wesley.
- Evjen, B. (2007). *Professional XML*. Indianapolis, IN: Wrox/Wiley Pub.
- Ford, Kevin. (2013). *LC Classification as linked data*. Università di Firenze Dipartimento di Storia, Archeologia, Geografia, Arte e Spettacolo.
- Goker, A., & Davies, J. (2009). *Information retrieval: Searching in the 21st century*. Chichester, U.K: Wiley.
- Harman, D. K. (2011). *Information retrieval evaluation*. San Rafael, Calif. (1537 Fourth Street, San Rafael, CA 94901 USA: Morgan & Claypool.
- Hjelm, J. (2001). *Creating the semantic Web with RDF: Professional developer's guide*. New York: Wiley.
- Jones, K. M. L., & Farrington, P.-A. (2011). *Using WordPress as a library content management system*. Chicago, IL: ALA TechSource.
- Langville, A. N., & Meyer, C. D. (2006). *Google's PageRank and beyond: The science of search engine rankings*. Princeton, N.J: Princeton University Press.
- Lin, Q., Allebach, J. P., & Fan, Z. (2011). *Imaging and printing in a web 2.0 world II*. Bellingham, WA: SPIE.
- Mandal, S. (2017). *Development of Semantic Web Based Institutional Digital Repository : The New Way*. Kolkata: Prova Prakashani.

- Meadow, C. T., Boyce, B. R., & Kraft, D. H. (2000). *Text information retrieval systems*. 2nd ed. San Diego: Academic Press.
- Méndez Rodríguez, Eva María, & Greenberg, Jane. (2012). *Linked data for open vocabularies and HIVE's global framework*. EPI SCP.
- Ndubisi, N. O. (2006). *Content management systems*. Bradford, England: Emerald Group Pub.
- Rüger, S. M. (2010). *Multimedia information retrieval*. San Rafael, Calif.: Morgan & Claypool Publishers.
- Vossen, G., & Hagemann, S. (2007). *Unleashing Web 2.0: From concepts to creativity*. Amsterdam: Elsevier/Morgan Kaufmann.
- Warner, J. (2010). *Human information retrieval*. Cambridge, Mass: MIT Press.
- White, M. S. (2005). *The content management handbook*. Abingdon: Facet Pub.
- Wong, W, Liu, W, Bennamoun, M, Wei Wang,, Payam Barnaghi,, & Andrzej Bargiela,. (2011). *Learning SKOS relations for terminological ontologies from text*. IGI Global
- Yu, H. (2005). *Content and workflow management for library web sites: Case studies*. Hershey, PA: Information Science Pub.

Third Semester

Major Elective

Course Code : LIS-303C

Course Title : Technical Writing

Major Elective -I									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-303C	Technical Writing	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Process of written communication. The publication process. Filtering in written communication: author, editor, reference, publisher, critic, user relationship. Role of communication and information presentation specialists – Graphical arts specialists, in AV aids (e.g. slides, video & Audio cassettes etc.), Translators etc.

Unit-2 Technical Writing: Meaning, features and scope, primary and secondary technical communication, writing for mass media. Different forms of technical writing.

Unit-3 Technical reports, feasibility reports, Technical manual, technical articles, process bulletins, reviews, dissertations .Other forms of writing: Business communication and official correspondence, Newsletters, Newspaper reports, extension literature, advertisement.

Unit-4 Guidelines for technical writing. Identification, Characteristics and information seeking behaviour of target user groups. Information collection: sources and methods, organisation and interpretation of information, knowledge and skills required for information collection and analysis.

Third Semester

Major Elective

Course Code : LIS-303C
Course Title : Technical Writing

Reading List:

- Seetharama, S. (2015). Guidelines for Technical Writing for Librarians and Information Professionals. India: Ess Ess Publications.
- Neelameghan, A. (1975). Presentation of Ideas in Technical Writing. India: Vikas Publishing House.
- Rubens, P. (2002). Science and Technical Writing: A Manual of Style. (n.p.): Taylor & Francis.
- Hoover, H. (1980). Essentials for the Scientific and Technical Writer. United Kingdom: Dover Publications.
- Rubens, P. (2002). Science and Technical Writing: A Manual of Style. (n.p.): Taylor & Francis.
- Altmann, E. J., Hallesky, G. J. (2011). Technical Writing That Works: Fourth Edition. United States: AuthorHouse.
- Greenlaw, R. (2012). Technical Writing, Presentational Skills, and Online Communication: Professional Tools and Insights. United States: Information Science Reference.
- BASU, B. N. (2007). TECHNICAL WRITING. India: PHI Learning.
- Jones, D. R. (1998). Technical Writing Style. United Kingdom: Allyn and Bacon.
- Boxerman, S. B., Wager, K. A., Austin, C. J., Malec, B. T. (1998). Information Systems for Health Services Administration. United States: Health Administration Press.
- Brusaw, C. T., Oliu, W. E., Alred, G. J. (2009). Handbook of Technical Writing. United States: Bedford/St. Martin's.
- Shelton, J. H. (1994). Handbook for Technical Writing. United States: NTC Business Books.

Young, M. (2002). The Technical Writer's Handbook. United States: University Science Books.
 Tracy, C. R., Jennings, H. L. (1961). Handbook for Technical Writers. United States: American Technical Society.
 Alred, G. J., Brusaw, C. T., Oliu, W. E. (1997). Handbook of Technical Writing. United States: St. Martin's Press.
 Hocks, M. E., Gurak, L. J. (2009). The Technical Communication Handbook. United Kingdom: Pearson Longman.
 Neufeld, J. K. (1987). A Handbook for Technical Communication. United States: Prentice-Hall.

Third Semester

Major Elective

Course Code : **LIS-303D**
Course Title : **Digital Preservation**

Major Elective -I									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-303D	Digital Preservation	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Introduction to digital preservation, Triad of digital preservation, historical background.

Unit-2 Steps in digital preservation process, digital preservation strategies, digital content, metadata for digital preservation.

Unit-3 Digital storage and media files, digital preservation tools, digital preservation software platform, Digital archives.

Unit-4 Digital content and IPR, Digital Preservation initiatives, future research challenges.

Third Semester

Major Elective

Course Code : LIS-303D
Course Title : Digital Preservation

Reading List:

- Giaretta, D. (2011). Advanced Digital Preservation. Germany: Springer Berlin Heidelberg.
- Owens, T. (2018). The Theory and Craft of Digital Preservation. United States: Johns Hopkins University Press.
- The State of the Art and Practice in Digital Preservation. (n.d.). (n.p.): DIANE Publishing.
- Corrado, E. M., Moulaison Sandy, H. (2017). Digital Preservation for Libraries, Archives, and Museums. United States: Rowman & Littlefield Publishers.
- Ogryczak, W., Śliwiński, T., Pałka, P. (2017). Digital Preservation: Putting It to Work. Germany: Springer International Publishing.
- Digital Preservation in Libraries: Preparing for a Sustainable Future. (2018). United States: American Library Association.
- Pan, Y., Lu, D. (2011). Digital Preservation for Heritages: Technologies and Applications. Germany: Zhejiang University Press.
- Corrado, E. M., Moulaison Sandy, H. (2017). Digital Preservation for Libraries, Archives, and Museums. United States: Rowman & Littlefield Publishers.
- Digital Preservation in Libraries: Preparing for a Sustainable Future. (2018). United States: American Library Association.
- Lawson, N. (2018). Digital Library Preservation Strategies: Digital Preservation Strategies; CH:2 Digital Library System:Construction and Configuration; CH:3 Preservation of Library Collection; CH:4 Digital Information Preservation; CH:5 Digital Electronic Archiving in Library;

CH:6 Audiovisual File Formats for Digital Preservation; CH:7 Information Management in Digital Libraries; Bibliography; Index. United Kingdom: ETP.

Digital Preservation. (2006). United Kingdom: Facet.

Tibbo, H. R., Lazinger, S. S. (2001). Digital Preservation and Metadata: History, Theory, Practice. United States: Libraries Unlimited.

Halder, S. N., Jana, S. (2013). Library and Information Science in Changing Paradigm. India: Ess Ess Publications.

Third Semester

Major Elective

Course Code : **LIS-304A**

Course Title : **Neoteric Library Technology**

Major Elective -II									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-304A	Neoteric Library Technology	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Designing Taxonomy, Thesaurus, and visual vocabulary

Unit-2 Linked open data and graph visualization

Unit-3 Real Time Visualization and Sites Metrics

Unit-4 Open knowledge and reference management system

Unit-5 Barcode generation, YouTube management, and web services

Third Semester

Major Elective

Course Code :

LIS-304A

Course Title :

Neoteric Library Technology

Reading List

Mandal, S. (2020). Neoteric Library Technology. India: ABS Books.

ICDL 2016: Smart Future, Knowledge Trends that Will Change the World, 13-16 December 2016, IHC, New Delhi, India : Conference Papers. (2016). India: TERI.

International Conference on Digital Libraries (ICDL) 2013: Vision 2020: Looking Back 10 Years and Forging New Frontiers. (2013). Germany: Energy and Resources Institute.

Joiner, I. A. (2018). Emerging Library Technologies: It's Not Just for Geeks. United Kingdom: Elsevier Science.

Cryptocurrencies and Blockchain Technology Applications. (2020). United Kingdom: Wiley.

Chow, A. S., Bucknall, T. (2011). Library Technology and User Services: Planning, Integration, and Usability Engineering. United Kingdom: Elsevier Science.

Shaw, M. K. (2015). Library Technology and Digital Resources: An Introduction for Support Staff. United States: Rowman & Littlefield Publishers.

The Sourcebook of Library Technology. (1992). United States: American Library Association.

Huang, S. T. (1993). Modern Library Technology and Reference Services. Austria: Haworth Press.

Block, C. (2017). Managing Library Technology: A LITA Guide. United States: Rowman & Littlefield Publishers.

Library Technology Reports: A Service to Provide Information on Library Systems, Equipment, and Supplies to the Library Profession. (1965). United States: (n.p.).

Silveira, D. (2018). Library Technology Planning for Today and Tomorrow: A LITA Guide. United States: Rowman & Littlefield Publishers.
 The Transforming Public Library Technology Infrastructure. (2011). United States: American Library Association.

Third Semester

Major Elective

Course Code : LIS-304B

Course Title : Content Management and Web Products

Major Elective -II									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-304B	Content Management and Web Products	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Introduction, Web Sharing and overview of content management system.

- Web 2.0: Characteristics;
- Web 2.0 Tools;
- Some Popular Web-based Services – Blog, Wikis, Social book marking, social networking;
- Use of Web-based Services in Libraries
- Web-based Library Services – Library 2.0

- Web-based Learning and Education – AnswerTips, Campusbug, Elgg, Moodle.

Unit-2 Tools and techniques in content management system

Unit-3 Designing Website through open source software.

Unit-4 Collaborative content development

- Content – concept, content tools, content format;
- Introduction to Collaboration - ools for Collaboration on the Web, Features of Collaboration Tools, Collaborative Content Development

Unit-5 Web Content Life Cycle Framework - Life Cycle Management;

Issues and Challenges: Quality, Validity and Authentication;

Implications for Libraries

Third Semester

Major Elective

Course Code : LIS-304B
Course Title : Content Management and Web Products

Reading List

Thomas, P., Mauthe, A. (2005). Professional Content Management Systems: Handling Digital Media Assets. Germany: Wiley.
Barker, D. (2016). Web Content Management: Systems, Features, and Best Practices. (n.p.): O'Reilly Media.
Theimecke, D., Addey, D., Suh, P., Ellis, J. (2003). Content Management Systems (Tools of the Trade). Germany: Apress.
Joshi, S. R. (2011). A Web Based Content Management System. United States: San Diego State University.
Rockley, A., Cooper, C. (2012). Managing Enterprise Content: A Unified Content Strategy. (n.p.): Pearson Education.
Vivante, B. (2013). Joomla Content Management System - Intermediate. United States: Intellezy.
Fraser, S. R. (2002). Real World ASP.NET: Building a Content Management System. Germany: Apress.
Shah, R. V. (2012). Building a Web Content Management System. United States: San Diego State University.
Farrington, P., Jones, K. M. L. (2011). Using WordPress as a Library Content Management System. United States: American Library Association.
White, M. (2005). The Content Management Handbook. United Kingdom: Facet Publishing.
Arthur, M. H. (2013). Expanding a Digital Content Management System: For the Growing Digital Media Enterprise. (n.p.): Taylor & Francis.
Farrington, P., Jones, K. M. L. (2011). Using WordPress as a Library Content Management System. United States: American Library Association.

Third Semester

Major Elective

Course Code : LIS-304C

Course Title : Library Networking

Major Elective -II									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-304 C	Library Networking	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Introduction

Unit-2 Overview of library network.

Unit-3 Library Networks: The Indian Scenario

Unit-4 Library Networks: International Scenario

Third Semester

Major Elective

Course Code : LIS-304C
Course Title : Library Networking

Reading List

- AARNet: Australia's Academic and Research Network. (<http://www.aarnet.edu.au>)
Ahmedabad Library Network. (ADINET). (<http://www.alibnet.org>)
ALA World Encyclopedia of Library and Information Services (1986). 2nd Ed. Chicago: ALA. p.472
Bhattacharya, Partha (2001). NISSAT Networks: Ahmedabad Library Network (ADINET). Information Today and Tomorrow. 20(3), 13-14.
Calcutta Library Network. (CALIBNET). (<http://www.calibnet.org>)
CALIBNET: An Overview (1999). Information Today and Tomorrow. 18(4), 3-7.
CALIS: China Academic Library and Information System. (<http://www.calis.edu.cn>)
Cholin, V.S. (2003). Overview of Library and Information Networks. PGDLAN; MLI-004; Unit 7. New Delhi: IGNOU. 134-164.
CURL (<http://www.curl.ac.uk>)
Developing Library Network (DELNET). (<http://delnet.nic.in>)
Information Library Network (INFLIBNET). (<http://www.inflibnet.ac.in>)
JANET. (<http://www.ja.net>)
Jebaraj, F.D. and Devadoss, F.R. (2004). Library and Information Networks in India. Library Philosophy and Practice. 6(2).
Kaul, H. K. (1992). Library Networks: A Indian Experience. New Delhi: Virgo Publications. pp. 24-93.
Kaul, H. K. (1999). Library Resource Sharing and Networks. New Delhi: Virgo Publications. pp. 63-101.
Rao, S. N. Krishna (2002). Mysore Library Network: MYLIBNET (Network with a difference). Information Today and Tomorrow. 21(1), 13-14 and 30

Third Semester

Major Elective

Course Code : LIS-304D

Course Title : Learning Content Management System

Major Elective -II										
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)				Marks Distribution		
Course Code	Course Title			L	T	P		End Sem	IA/PRC	Total
LIS-304D	Learning Content Management System	Major Elective	5 Credit	4	2	0	40	10	50	

Unit-1 General Concepts of Learning Management System; E-Learning and Open Access

Unit-2 E-Learning for Course and Categories; Activities of Online Education

Unit-3 Quiz Creation and other activities ; Course Completion Certificate

Unit-4 Video Conferencing System ; Assignment for E-Learning

Unit-5 Attractive E-Learning Interface ; Community Communication and Interaction in E-Learning

Third Semester

Major Elective

Course Code : LIS-304D
Course Title : Learning Content Management System

Reading List

- van Oorschot, P. C. (2020). Computer Security and the Internet: Tools and Jewels. Switzerland: Springer International Publishing.
- Kumail, S. M. N., Chadha, G. (2002). E-Learning: An Expression of the Knowledge Economy. India: Tata McGraw-Hill.
- Mandal, S. (2020). Complete Solution of E-Learning and Virtual Class. Beau Bassin: LAP Lambert Academic Publishing.
- Garrison, D. R. (2011). E-Learning in the 21st Century: A Framework for Research and Practice. United Kingdom: Taylor & Francis.
- E-Learning: Instructional Design, Organizational Strategy and Management. (2015). Croatia: IntechOpen.
- Buzzetto-More, N. A. (2007). Advanced principles of effective e-learning. United States: Informing Science Press.
- Hartley, D., Rossen, E. (2001). Basics of E-Learning. United States: ASTD.
- Khan, B. H. (2005). Managing E-learning: Design, Delivery, Implementation, and Evaluation. United Kingdom: Information Science Pub..
- E-Learning, E-Education, and Online Training: Third International Conference, ELEOT 2016, Dublin, Ireland, August 31 – September 2, 2016, Revised Selected Papers. (2016). Germany: Springer International Publishing.
- Gardner, J., Holmes, B. (2006). E-Learning: Concepts and Practice. United Kingdom: SAGE Publications.
- Trends in E-learning. (2018). United Kingdom: IntechOpen.
- Emerging Technologies in Virtual Learning Environments. (2019). United States: IGI Global.
- Lewis, D. (2004). Virtual Learning Communities. United Kingdom: McGraw-Hill Education.
- Preston, D. S. (2004). Virtual Learning and Higher Education. Netherlands: Rodopi.
- Schank, R. C. (1997). Virtual Learning: A Revolutionary Approach to Building a Highly Skilled Workforce. United Kingdom: McGraw-Hill.
- Cases on Collaboration in Virtual Learning Environments: Processes and Interactions. (2010). Ukraine: IGI Global.
- Hunsinger, J., Weiss, J., Trifonas, P., Nolan, J. (2007). International Handbook of Virtual Learning Environments. Netherlands: Springer Netherlands.

- Virtual Learning Environments: Concepts, Methodologies, Tools and Applications. (2012). Ukraine: Information Science Reference.
- Weller, M. (2007). Virtual Learning Environments: Using, Choosing and Developing Your VLE. (n.p.): Taylor & Francis.
- Dyson, P. o. P. I. f. A. S. F. J., Dyson, F. J. (1999). The sun, the genome, & the Internet : tools of scientific revolutions. United Kingdom: Oxford University Press.
- Van Slyke, C. (2008). Information Communication Technologies: Concepts, Methodologies, Tools and Applications. United Kingdom: Information Science Reference.
- Gralla, P. (1998). How the Internet Works. United States: Que.
- Stein, S. D. (2014). Learning, Teaching and Researching on the Internet: A Practical Guide for Social Scientists. United Kingdom: Taylor & Francis.
- Brown, H. (2001). Internet Tools. United States: Cengage South-Western.
- Nichols, J. A. (2014). Teaching Internet Basics: The Can-Do Guide. United States: ABC-CLIO.
- Howe, W., Lambert, S. (1993). Internet basics: your online access to the global electronic superhighway. United Kingdom: Random House Electronic Pub..
- Wishnietsky, D. H. (1997). Internet Basics: An Educator's Guide to Traveling the Information Highway. United States: Phi Delta Kappa Educational Foundation.
- Fawcett, S. (2007). Internet Basics for Beginners: How to Send E-Mails and Surf the Net with Ease. Canada: Final Draft Publications.
- Fawcett, S. (2000). Internet Basics Without Fear! Quick Start Guide for Becoming Internet-Friendly in Just a Few Steps. Canada: Final Draft Publications.

Third Semester

Interdisciplinary Elective

Course Code : LIS-305A

Course Title : Current Trends in LIS

Interdisciplinary Elective									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-305A	Current Trends in LIS	Interdisciplinary Elective	4 Credit	4	2	0	40	10	50

Unit-1 Foundations of Library & Information Science

- Libraries, Documentation and Information centres;
- Five Laws of Library Science & their Implications;
- Types, Objectives and Functions of Libraries : Public, National Library, Academic and Research;
- Library Extension Activities;
- Users Studies.

Unit-2 Information Centre Management

- Principles of Management & their application in Libraries and Information Centres (POSDCORB & TQM);
- Library Records (Technical records, administrative records);
- Processing of Library Documents;
- Library circulation, library statistics and annual report;

- Preservation and conservation of library materials.

Unit-3 Open Access Sources and Services

- OA Pathfinders – DMOZ, DOAB, OATD;
- Gold path of OA – DOAJ and Green path of OA - OpenDOAR, ROAR;
- Open Data;
- OA gateways – SSRN, PloS, OA federation – BASE, CORE;
- OA educational resources and OA citation services.

Unit-4 Library Information Technology

- Definition, Generations of Computer and Types;
- Applications of Computer in Library;
- Library software;
- Reference Management System;
- Anti Plagiarism software.

Unit-5 Virtual Learning System

- Definition, characteristics, and benefits;
- Types of Virtual Learning System (VLS);
- Learning Content Management System;
- Moodle and Moodle Cloud;
- E-learning System (SWAYAM, MOOCs, NPTEL and etc.).

Third Semester

Interdisciplinary Elective

Course Code : LIS-305A

Course Title : Current Trends in LIS

Reading List

- Bailey, C. W., & Association of Research Libraries. (2005). *Open access bibliography: Liberating scholarly literature with e-prints and open access journals*. Washington, DC: Association of Research Libraries.
- Chan, L., & Chan, Leslie. (2012). *Re-imagining research impact in the open knowledge environment*.
- Chan, L., Kirsop, B., & Arunachalam, S. (2005). *Open access archiving: the fast track to building research capacity in developing countries*. London: Science and development network (SciDevNet)
- Clinic on Library Applications of Data Processing, Sutton, B., Davis, C. H., University of Illinois at Urbana-Champaign., & Committee on Institutional Cooperation. (1992). *Networks, open access, and virtual libraries: implications for the research library*. Urbana-Champaign: Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign.
- Crawford, W. (2011). *Open access: what you need to know now*. Chicago: American Library Association.
- D'Antoni, S., Savage, C., & Unesco. (2009). *Open educational resources: Conversations in cyberspace*. Paris: United Nations Educational, Scientific and Cultural Organization.
- European Union., & UNESCO (2008). *Open Access: opportunities and challenges*. Luxembourg: EUR-OP.
- Fong, Y. S., & Ward, S. M. (2004). *The changing landscape for electronic resources: Content, access, delivery, and legal issues*. Binghamton, NY: Haworth Information Press.
- Godwin, P., & Parker, J. (2012). *Information literacy beyond Library 2.0*. London: Facet Pub.
- Guibault, L. M. C. R., & Angelopoulos, C. (2011). *Open content licensing: from theory to practice*. Amsterdam: Amsterdam Univ Pr.
- Harnad, Stevan. (2008). *Mandate Open Access to maximizing research progress*. (<http://hdl.handle.net/10077/2603>.)
- Harnad, S. (2005). Impact analysis in the open access era. Retrieved September 5, 2013 from <http://openaccess.eprints.org/index.php?/archives/2005/10/10.html>
- Hood, A. K., & Association of Research Libraries. (2007). *Open access resources*. Washington, D.C: Association of Research Libraries.
- ISSN International Centre., & Unesco. (2013). *ROAD: Directory of open access scholarly resources*.
- Jacobs, N. (2006). *Open access: key strategic, technical and economic aspects*. Oxford: Chandos.
- Mandal, S. *Advanced Integrated Information Management and Retrieval System: The Practical Approach*. Kolkata: Prova Prakashani.

- Mandal, S. (2020). *Neoteric Library Technology*. New Delhi: ABS Books.
- Mukhopadhyay, P. (2014). *Retrieval*. In UNESCO course on Open Access (Module 4: Interoperability and Retrieval in OA – Unit 2). New Delhi: CEMCA/UNESCO.
- Okada, A., Connolly, T., & Scott, P. J. (2012). *Collaborative learning 2.0: Open educational resources*. Hershey PA: Information Science Reference.
- Schmidt, B., & Kuchma, I. (2012). *Implementing open access mandates in Europe: OpenAIRE study on the development of open access repository communities in Europe*. Göttingen: Universitätsverlag Göttingen.
- Suber, P. (2012). *Open access*. Cambridge, Mass: MIT Press.
- Swan, A., & Chan, L. (2009). *Open access scholarly information sourcebook: practical steps for implementing open access*. S.l.: Openoasis.org.
- Swan, A., & UNESCO. (2012). *Policy guidelines for the development and promotion of open access*. Paris: United Nations Educational, Scientific, and Cultural Organization.
- UNESCO. (2013). *An open door to UNESCO's knowledge*.
- UNESCO. (2006). *UNESCO open access resource directory*. Paris: United Nations Educational Scientific and Cultural Organization.
- Willinsky, J. (2006). *The access principle: the case for open access to research and scholarship*. Cambridge, Mass: MIT Press.

Third Semester

Interdisciplinary Elective

Course Code : LIS-305B

Course Title : Medical Information Systems and Services

Interdisciplinary Elective										
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)				Marks Distribution		
Course Code	Course Title			L	T	P		End Sem	IA/PRC	Total
LIS-305B	Medical Information Systems and Services	Interdisciplinary Elective	4 Credit	4	2	0		40	10	50

Unit-1 History of medicine, Medical terminologies. National Library of Medicine Classification Scheme

Unit-2 Index Medicus. MeSH as indexing vocabulary tool. MEDLARS and MEDLINE, PubMed tutorial

Unit-3 Role of NLM, WHO, ICMR. Efforts of National Informatics Center: IndMed, MedInd and OpenMed.

Unit-4 Medical Librarians' Discussion Forum. Health Sciences Network. OSDD International Collaborative effort by CSIR; Health related library & information services in India and abroad

Unit-5 Medical college libraries – structures, activities, services, status in West Bengal and India.

Third Semester

Interdisciplinary Elective

Course Code :

LIS-305B

Course Title :

Medical Information Systems and Services

Reading list

Cheny, H. (2006). Medical Informatics: knowledge management and data mining in biomedicine. Springer.

Rodrigues, J. (2009). Health Information Systems: Concepts, Methodologies, Tools, and Applications. Ukraine: IGI Global.

Balgrosky, J. A. (2014). Essentials of Health Information Systems and Technology. United States: Jones & Bartlett Learning.

Public Health Informatics and Information Systems. (2013). Netherlands: Springer London.

Healthcare Information Systems. (2002). United Kingdom: CRC Press.

Tan, J. K. H. (2001). Health Management Information Systems: Methods and Practical Applications. United States: Aspen Publishers.

Glaser, J. P., Wager, K. A., Lee, F. W. (2013). Health Care Information Systems: A Practical Approach for Health Care Management. Germany: Wiley.

Tan, J., Payton, F. (2010). Adaptive Health Management Information Systems: Concepts, Cases, & Practical Applications. United States: Jones & Bartlett Learning.

Winter, A., Haux, R., Ammenwerth, E., Hellrung, N., Brigl, B., Jahn, F. (2011). Health Information Systems: Architectures and Strategies. Netherlands: Springer London.

Smaltz, D. H., Slovensky, D. J., Glandon, G. L. (2013). Information Systems for Healthcare Management. United States: Health Administration Press.

Boxerman, S. B., Wager, K. A., Austin, C. J., Malec, B. T. (1998). Information Systems for Health Services Administration. United States: Health Administration Press.

Third Semester

Interdisciplinary Elective

Course Code : **LIS-305C**

Course Title : **Agricultural Information Systems and Services**

Interdisciplinary Elective									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-305C	Agricultural Information Systems and Services	Interdisciplinary Elective	4 Credit	4	2	0	40	10	50

Unit-1 Growth and development of agricultural education and research in India. Role of libraries in agricultural education research and extension. Recent growth and development of agricultural libraries in India.

Unit-2 Special information needs of agricultural faculty, research staff extension personnel and stations.

Unit-3 Specialized collection and information sources: agricultural databases, agricultural information centres – national and international.

Unit-4 Resource sharing and networking in agricultural libraries and information centres.

Unit-5 Online Agricultural Information Resources at National and International level, such as – Open Access Repositories(DOAR, OpenDOAR); KRISHI: ICAR Research Data Repository For Knowledge Management; Agricultural Communications Documentation Center, University of Illinois at Urbana-Champaign; AGROVOC Thesaurus; CropIndex; CropSearch, National Agricultural Library Digital Collections by NAL etc.

Third Semester

Interdisciplinary Elective

Course Code :

LIS-305C

Course Title :

Agricultural Information Systems and Services

Reading List

- Craig, G. M. (1979). Information Systems in UK Agriculture: Final Report of the Agriculture Information Review Committee. United Kingdom: British Library.
- Encyclopedia of Information Systems and Services. (1974). United States: Gale Research.
- Computer and Computing Technologies in Agriculture VII: 7th IFIP WG 5.14 International Conference, CCTA 2013, Beijing, China, September 18-20, 2013, Revised Selected Papers, Part II. (2014). Germany: Springer Berlin Heidelberg.
- Agricultural Information and Documentation System for Latin America and the Caribbean (sidalc) Methodological Document No. 1 Basic Structure and Participants' Responsibilities. (n.d.). (n.p.): Bib. Orton IICA / CATIE.
- Information Systems for Agriculture. (2012). Netherlands: Springer Netherlands.
- Proceedings of the Workshop NETWORK OF AGRICULTURAL INFORMATION AND DOCUMENTATION UNITS IN JAMAICA. (n.d.). (n.p.): Iica.
- Agricultural Information and Documentation System for Latin America and the Caribbean (sidalc). (n.d.). (n.p.): Bib. Orton IICA / CATIE.
- Food information systems : summary and analysis. (n.d.). (n.p.): DIANE Publishing.

Computer and Computing Technologies in Agriculture VI: 6th IFIP WG 5.14 International Conference, CCTA 2012, Zhangjiajie, China, October 19-21, 2012, Revised Selected Papers, Part I. (2013). Germany: Springer Berlin Heidelberg.

Loubser, J., Töttemeyer, A. (1993). Coordination of Information Systems and Services in Namibia: Papers of the Seminar Held in Windhoek 25 Febr. to 5 March 1993. Germany: German Foundation for International Development, Education, Science and Documentation Centre.

Third Semester

Interdisciplinary Elective

Course Code : **LIS-305D**
Course Title : **LIS Education**

Interdisciplinary Elective										
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)				Marks Distribution		
Course Code	Course Title			L	T	P		End Sem	IA/PRC	Total
LIS-305D	LIS Education	Interdisciplinary Elective	4 Credit	4	2	0	40	10	50	

Unit-1 Manpower development: LIS education vis-à-vis social and economic development. Manpower needs and manpower studied. Structure and function of library personnel- task analysis,. Redefinition of jobs, identification of supporting function including those which may be contributed by other professional. Technical expertise and specialist. Manpower policies. Levels of education of training: Certificate, Diploma, Bachelor, Masters, MPhil and PhD programmes. Library science as optional subject in schools and colleges. Informal and short-term programmes. Refresher and in-service programme and continuing education programmes.

Unit-2 Curriculum design methodology: formulating objectives: length of the curriculum. Admission requirements. Content-foundation: core courses, elective, optional, practical and job experiences. System of examination and certification. Evaluation of courses and contents.

Unit-3 Teaching methods and techniques: Lecture-cum-demonstration, tutorials, group discussions, seminars, colloquia, case studies, assignment, management games, role playing, observation and field studies, participative learning by studies.

Teaching aids: Charts, tables, diagrams, specimens, models, audio-visual aids, radio talks. TV lessons etc.

Learning material: Growth of library literature in India. Books and monographs, programmed texts, audio-visual materials, computer simulations, etc. Teaching personnel: Cadre, qualification, recruitment, emoluments, promotions, avenues for personal development, training for teachers, teaching skills, innovation in teaching, practicing librarians' participation in teaching. Cooperation and coordination among library schools, university library and library schools, allied departments in university and research programs in the university.

Standardization: Administration, staff, finance, library, teaching aids, buildings, student in-take, accreditation. Research in library and information science in India: Evaluation of research done in India. Research activities, Area of Research.

Unit-4 Research method: International surveys, case studies, etc.; assumptions and validity of comparisons, International comparative studies, regional studies, and country comparisons: national and regional non-library factors; explanatory theories (e.g. influence of climate, orality and literacy).

International diffusion of library theories and techniques: adoption of innovations, adaptation, rejection, International influences: transatlantic, Anglo-American, Continental European, colonial, post-colonial, Role of cultural and information agencies (USIS, British Council etc.) and philanthropic foundations; Carnegie Corporation, Andrew W. Mellon Foundation, Soros, etc.; Book donations (Ranfurly, Sabre, etc.), International non-governmental organisations in LIS-IFLA, FID, regional library associations, specialised international associations.

Unit-5 Advanced LIS education – e-learning (online and virtual mode) courses in LIS at National and International level. MOOCs, SWAYAM platform etc. Open Access Educational Resources at National and International level– eGyankosh, ePGpathsala, MIT CourseWare, National Digital Library of India etc.

Third Semester

Interdisciplinary Elective

Course Code : **LIS-305D**
Course Title : **LIS Education**

Reading List

- Transformation of LIS Education, Libraries and Information Services for Knowledge Society: Essays in Honour of Prof. Jagtar Singh. (2016). India: Ess Ess Publications.
- Karisddappa, C. R. (2014). LIS Education in Developing Countries: The Road Ahead. Germany: De Gruyter.
- Humanizing LIS Education and Practice: Diversity by Design. (2020). (n.p.): Taylor & Francis.
- Quality Assurance in LIS Education: An International and Comparative Study. (2014). United States: Springer New York.
- Internationalization of Library and Information Science Education in the Asia-Pacific Region. (2020). United States: IGI Global.
- Prasher, R. G. (1997). Library and Information Science: Parameters and Perspectives : Essays in Honour of Prof. P.B. Mangla. India: Concept Publishing Company.
- Library And Information Science Education In India. (2009). India: Har-Anand Publications.
- LIS Education and Research in a Dynamic Information Landscape: Proceedings of the Library and Information Studies Centre 75 Years Commemorative Conference, Cape Town, South Africa, 27-28 November 2014. (2016). South Africa: University of Cape Town Libraries.
- Global Library and Information Science: A Textbook for Students and Educators : with Contributions from Africa, Asia, Australia, New Zealand, Europe, Latin America and the Caribbean, the Middle East, and North America. (2009). Germany: K.G. Saur.
- ALIA LIS Education, Skills and Employment Trend Report 2019. (2020). (n.p.): Australian Library and Information Association (ALIA).
- Education for Library Cataloging: International Perspectives. (2013). (n.p.): Taylor & Francis.
- Trends, Challenges and Opportunities for LIS Education and Practice: Festschrift in Honour of Prof. Muttayya Koganuramath. (2019). India: Shree Publishers & Distributors.
- Service Learning: Linking Library Education and Practice. (2009). United States: American Library Association.
- Library and Information Science Education: An International Symposium : Papers Presented at the International Conference on Library and Information Science Education Sponsored by the Department and Graduate Institute of Library Science, National Taiwan University, November 29-30, 1985. (1987). Taiwan: Scarecrow Press.
- Encyclopedia of Library and Information Science: Volume 50 - Supplement 13:: Achieving Compatibility of Indexing Languages in Online Access Environment to Vietnam: Libraries and Information Services. (1992). Switzerland: Taylor & Francis.

Fourth Semester

Compulsory

Course Code : LIS-400

Course Title : Library Community Development Programme

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	Report writing	Presentation/ Viva-voce	Total
LIS-400	Library Community Development Programme (30 hours of involvement with at least 50 per cent field work)	Compulsory	2 Credit	0	0	5	10	10	20

Students have to participate in the Library Community Development Programme (Community Engagement programmes) of the department for the concerned year and follow it up with a written Report & Presentation and Viva-Voce. The main objectives are to develop an appreciation of rural culture, lifestyle and wisdoms among students, to learn about the states of various agricultural and rural development programmes, to understand causes for rural distress and poverty and explore solutions for the same and to apply class room knowledge of courses to field realities. Evaluation pattern would be as follows:

Report writing: 10 marks

Presentation and viva-voce: 10 marks (in the presence of external expert(s) from other Departments of the Home University)

Fourth Semester

Core Course

Course Code : LIS-401

Course Title : Digital Library System

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-401	Digital Library System	Core	5 Credit	0	0	5	40	10	20

Unit-1 Historical and Theoretical Foundations

- Nature, concepts, scopes, definitions and types of digital libraries;
- History of digital library initiatives, institutional repositories and open knowledge movement;
- Social, legal and economic issues;
- Digital information resources and Digital archiving
 - Digital information resources – features, types and bit stream formats;
 - Analog (traditional) vs. Digital information resources;
 - Digital archiving – features, advantages and applications;
- Traditional, automated, digital and virtual library systems – comparative study.

Unit-2 Organization of Digital Objects

- Metadata encoding– generic and domain-specific schemas (Including DCMES, GILS, AGLS, ONIX, TEI, IEEE LOM, GEMS, SeamlessUK etc.);
- Metadata encoding standards - Markup languages (HTML, XHTML, XML), Encoding standards (W3C and IETF standards) and Resource Description Framework (RDF);
- Resource identifiers (Naming services) – URN, URI, CNRI's handle, PURL, DOI;
- Subject access systems – standards and tools;

- Crosswalks and Interoperability - Crosswalks of metadata schemas and Interoperability initiatives and standards (OAI/PMH, Z 39.50, ZING, SRU/W; ORE etc).

Unit-3 Architecture, Information Retrieval and User interfaces

- Web architecture – models, standards, protocols, tools and technologies;
- Web databases - technologies, standards and tools; products and services;
- Architecture of digital library systems - design issues, design principles and models;
- Information retrieval in digital library systems - retrieval models for digital library systems, use of vocabulary control devices, text retrieval tools – types, features and comparisons (Lucene, MGPP, Solr), search techniques – Boolean, relational and positional operators etc and study of information retrieval features of selected digital library systems;
- User interfaces of digital library systems – models, frameworks, design issues, principles, standards and study of user interfaces of selected digital library systems.

Unit-4 Design and Development of Digital Library Systems

- Digitization and collection development (hardware, software, process, file formats, issues, policies and principles, collection management);
- Standards related to digital library system;
- Software related to digital library system – features and selection parameters;
- Centralized processing and distributed access software (WWWISIS, GSDL etc);
- Distributed processing and distributed access software (EPrint, DSpace, Omeka etc).

Unit-5 Federated and Multilingual Digital Library Systems

- Federated search service – metadata-level and content-level harvesting;
- Metadata harvesting – standards, process and software;
- Multi-lingual digital library – Indic scripts, standards, tools;
- Web-scale resource discovery, Semantic web and digital libraries;
- Trends and future.

Unit-6 Practical Components

- DL type - Centralized processing and distributed access – installation, configuration and collection development;
- DL type - Distributed processing and distributed access – installation, configuration and collection development;
- Metadata harvesting – installation, configuration and collection development;

- Web-scale resource discovery software – installation, configuration and collection development;
- Indic scripts based digital library.

Fourth Semester

Core Course

Course Code : LIS-401
Course Title : Digital Library System

Reading List

- Argerich, K. (2004). *Professional PHP programming*. Mumbai: SPD/Apress Reprints.
- Arms, W. (2000). *Digital libraries*. Cambridge MA: MIT Press,.
- Bayross, I. (2000). *Using Apache, MySQL, PHP and PERL on Linux*. New Delhi: BPB Publications.
- Bayross, I. (n.d.). *Using MySQL on Linux*. New Delhi: BPB Publications.
- Bhatnagar, S. (2002). *Information and communication technology in development: cases from India*. New Delhi: Sage.
- Borgman, G.L. (2000). *From Gutenberg to the global information infrastructure: access to information in networked world*. Cambridge MA: MIT Press.
- Barnes, S. J. (2004). *Becoming a digital library*. New York: Marcel Dekker.
- Briggs, A. (2005). *The definitive guide to user mode Linux*. Mumbai: Shrof Publishers.
- Brophy, P. (2001). *The library in the twenty-first century*. London: Library Association.
- Calhoun, Karen. (2013). *Digital libraries*. London: Facet Publishing.
- Caplan, Priscilla. (2000). *Metadata fundamentals for all librarians*. Chicago:: ALA.
- Chowdhury, G.G. & Chowdhury, S. (2003). *Introduction to digital libraries*. London: Facet Publishing.
- Chowdhury, G.G. & Foo, Schubert, Ed. (2012). *Digital libraries and information access: research perspectives*. London: Facet Publishing.
- Crawford, W., & Gorman, M. (1995). *Future libraries: dreams, madness & reality*. Chicago: American Library Association.
- Deegan, M, & Tanner, S. (2003). *Digital futures: strategies for the information age*. London: Library Association.

- Digital Library Futures: User Perspectives and Institutional Strategies (Conference), Verheul, I., Tamaro, A. M., & Witt, S. (2010). *Digital Library Futures: User Perspectives and Institutional Strategies*. Berlin: De Gruyter Saur.
- Fox, E. A., & Torres, R. S. (2014). *Digital Library Technologies: Complex Objects, Annotation, Ontologies, Classification, Extraction, and Security*. San Rafael: Morgan & Claypool Publishers.
- Fox, E. A., Logan, E., & International Conference on Asian Digital Libraries. (2004). *An Asian digital libraries perspective*. Amsterdam: Elsevier Ltd.
- Gorman, G.E., & Dorner, D.G. (2004). *Metadata applications and management*. London: Facet Publishing,.
- Jean, G. (2011). *Digital library*. New Delhi: World Technologies.
- Kruk, S. R., & McDaniel, W. D. (2009). *Semantic digital libraries*. Berlin: Springer.
- Lesk, M. (1997). *Practical digital libraries: books, bytes and bucks*. San Francisco: Morgan Kaufmann.
- Lesk, M. (2004). *Understanding digital libraries*. 2nd ed. San Francisco: Morgan Kaufman.
- Marchionini, G. (1995). *Information seeking in electronic environments*. Cambridge: Cambridge University Press.
- Meadow, C.T, Boyce, B.R., & Kraft, D.H. (2000). *Text information retrieval systems* (2nd ed.). San Diego: Academic Press.
- Myers, D. (2004). *Professional Java XML programming with servlet and JSP*. Mumbai: Shrof Publishers.
- Oleck, J., & Primary Research Group. (2012). *Creating the digital library*. New York: Primary Research Group, Inc.
- Raymond, E. S. (2001). *The cathedral and the bazaar: musings on Linux and open source by an accidental revolutionary* . (Rev. ed.). Cambridge: O'reilly and Associates Inc.
- Shen, R., Gonçalves, M. A., & Fox, E. A. (2013). *Key issues regarding digital libraries: Evaluation and integration*. San Rafael, Calif.: Morgan & Claypool.
- Stewart, C. (2010). *The academic library building in the digital age: A study of construction, planning, and design of new library space*. Chicago, Ill: Association of College and Research Libraries.
- Tanenbaum, A.S. (2001). *Computer networks* (3rd ed.). New Delhi: Prentice-Hall.
- Thomas A. Peter. (2000). Library Trends: Special issue: Assessing digital library services, 49(2).
- Unicode Consortium. (2005). *Unicode Consortium: The Unicode standard, version 4.1*. Reading: Addison Wesley.
- Witten, I. H., Bainbridge, D., & Nichols, D. M. (2010). *How to build a digital library*. Burlington, MA: Morgan Kaufmann.
- Wright, A.S. (2004). *Professional PERL programming*. Mumbai: SPD/Apress Reprints.
- Yu, P. K. (2007). *Intellectual property and information wealth: Issues and practices in the digital age*. Westport, Conn: Praeger Publishers.

Fourth Semester

Core Course

Course Code : LIS-402

Course Title : Research Methodology

Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-402	Research Methodology	Core	5 Credit	4	2	0	40	10	20

Unit-1 Introduction to Research Methodology

- Concept, meaning, objectives and process of research;
- Types of research – Fundamental and Applied Research, Qualitative and Quantitative Research;
- Ranganathan's spiral of scientific method; Indian approaches to research;
- Ethical aspects of research.

Unit-2 Research Design and Methods

- Research Design, Research Proposal; Identification and formulation of research problem and Hypothesis;
- Sampling Technique;
- Literature Search and Review of Literature;
- Types of research method – Descriptive method, Historical method, Experimental method, Survey method and Case Study.

Unit-3 Data Collection and Presentation

- Data Collection Tools and Techniques – Questionnaire, Interview, Observation, Library records, Reports;
- Data Types, Scales;
- Data presentation – Generalization, Tabulation and Graphical presentation.

Unit-4 Data Analysis and Interpretation

- Application of statistical techniques in LIS and Statistical Packages- MS-Excel, SPSS, Other Softwares for Statistical Analysis;
- Measures of Central Tendency – Mean, Median and Mode;
- Measures of Dispersion, Standard Deviation, Correlation and regression;
- **Hypothesis Testing, Null and Alternative Hypothesis, Sampling Error, Chi-Square Test.**

Unit-5 Report writing and Research communication

- Research reporting – Formats, Structure, styles, contents,
- Guidelines, Style manuals and Citation standards,
- Research support tools – on-line survey tools, research profile, research guides, plagiarism checker;
- Research communication channels (Research-in-progress, ETD repositories, Institutional repositories, Subject repositories).
- Trends in LIS research

Fourth Semester

Core Course

Course Code : LIS-402
Course Title : Research Methodology

Reading List

- Boyce, R.R., Meadow, C.T. & Kraft, D.H. (1994). *Measurement in information science*. San Diego, CA: Academic Press.
- Busha, Charles A, & Harter, Stephen P. (1980). *Research methods in librarianship: techniques and interpretations*. New York: Academic Press.
- Connaway, Lynn Silipigni & Powell, Ronald R. (2010). *Basic research methods for librarians*. 5th ed. Santa Barbara, CA: Libraries Unlimited.
- Daniel, R., Mills, J., & Classification Research Group. (1975). *A classification of library & information science*. London: Library Association.
- Das, N.G. (2009). *Statistical methods*. Calcutta: Tata McGraw-Hill.
- Glazier, Jack D, & Hall, Peter M. (1992). *Qualitative research in information management*. Englewood, CO: Libraries Unlimited.
- Goon, A.M., Gupta, M.K. and Dasgupta, B. (1978). *Basic statistics*. Calcutta: World Press.
- Gorman, G.E. & Clayton, Peter. (2004). *Qualitative Research for the Information Professional: a practical handbook*. 2nd ed. London: Facet.
- Gupta, S.P. (2002). *Statistical Methods*. New Delhi: Sultan Chand.
- Donald, H. K. & Boyce, Bert R. (1991). *Operations research for libraries and information agencies: techniques for the evaluation of management decision alternatives*. San Diego: Academic Press.
- Hafner, Arthur W. (1997). *Descriptive statistical techniques for librarians*. (2nd ed.). Chicago: American Library Association.
- Hernon. P. (1989). *Handbook of statistics for library decision making*. Norwood, NJ: Ablex.
- Khan, M. A. (2002). *Research methods in library and information science*. New Delhi: Cosmo Publications.
- Krishan Kumar (1992). *Research methods in library in social science*. New Delhi: Vikas.
- Lawal, I. O. (2009). *Library and information science research in the 21st century: a guide for practicing librarians and students*. Oxford, UK: Chandos Pub.
- Losee, Robert M., Jr., & Worley, Karen A. (1993). *Research and evaluation for information professionals*. San Diego: Academic Press.
- Lynam, P., Slater, M. & Walker, R. (1982). *Research and the practitioner: dissemination of research results within the library-information profession*. London: Aslib.
- Martyn, John, & Lancaster, F. Wilfrid. (1981). *Investigative methods in library and information science: an introduction*. Arlington, VA: Information Resources Press.
- McClure, C. R., & Hernon, P. (1991). *Library and information science research: perspectives and strategies for improvement*. Norwood, N.J: Ablex Pub. Corp.

- Mellon, Constance A. (1990). *Naturalistic inquiry for library science: methods and applications for research, evaluation, and teaching*. New York: Greenwood.
- Moore, N. (2006). *How to do research*. 3rd ed. London: Facet Publishing.
- Pickard, Alison Jane. (2012). *Research Methods in Information*. 2nd ed. London: Facet.
- Prytherch, Ray. (1994). *Information management and library science: a guide to the literature*. Brookfield, VT: Gower.
- McClure, Charles R. & Herson, Peter, Ed. (1991). *Library and Information science research: perspectives and strategies for improvement*. Norwood, NJ: Ablex Publishing Corporation.
- Simpson, I. S. (1990). *How to interpret statistical data: A guide for librarians and information scientists*. London: Library Association.
- Slater, Margaret, Ed. (1990). *Research methods in library and information studies*. London: Library Association.
- Stephen, Peter, & Hornby, Susan. (1995). *Simple statistics for library and information professionals*. London: Library Association.
- Williamson, K., Ed. (2002). *Research methods for students, academics and professionals: Information management and systems*. 2nd ed. Wagga Wagga, Australia: Center for Information Studies, Charles Stuart University

Fourth Semester

Major Elective

Course Code : LIS-403A

Course Title : Community Information System

Major Elective-III									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-403A	Community Information System	Major Elective	5 Credit	4	2	0	40	10	20

Unit-1 Fundamentals of Community Information Services (CIS)

- Nature, scope, use and users of community information, Survival Information and Citizen Action Information, Community of place vs. community of interest;
- Community Information Services – Definition, Need, Features and objectives;
- Providers of Community Information Services – Systems, Agencies and Institutions, Libraries as CIS Providers: Global and Indian scenario;
- Role of public libraries — IFLA/UNESCO Public Library Manifesto, Library Outreach Programmes, Library Publicity and Public Relation, E-Governance: Meaning, scope and purposes, E-Governance institutions in India;
- Community Information Systems and Services: Global and National Scenario.

Unit-2 Community Information Resources

- Nature and Scope, Differences with bibliographical resources;
- Documentary Sources: vital statistics, land records, official publications, magazines, maps & atlases, photographs, personal collections, leaflets, local history materials, etc;
- Institutional Sources: Publications of local governments and government agencies, educational and religious institutions, NGOs, political parties, labour and peasant organizations, etc;
- Human Resources: village level leaders, field extension personnel, religious leaders, government officials, etc;

- Cultural heritage resources and Digital resources.

Unit-3 Local Studies

- Definition and Scope, Types and kinds of local studies materials;
- Local studies — Collection and Organization in libraries;
- Government agencies, local organizations including the calendar of local events;
- Area Profile — Meaning, Structure and compilation;
- Local history, Local heritage and Oral history.

Unit-4 Community Information Resources: Organization and Access

- Community Information Resources – data formats and metadata initiatives, bibliographic format vs. Community information format, CCO and other initiatives;
- Organization of Community Information Resources
 - Need of organization and Requirements for organization;
 - Content designators – CCF/F and MARC 21 CIF.
 - Metadata – Schemas and Encoding;
- Integrated processing of Community Information Resources and Bibliographic Resources, Subject Access to Community Information Resources – Vocabulary control tools;
- Access to Community Information Resources – Media and Mechanisms;
- **Projects and initiatives on community information organization.**

Unit-5 Digital Community Information Services

- Digital Community Information Services – Need, Advantages, Tools and Techniques;
- Software Framework for Community Information Services: Models, Components, Clusters, and Integration;
- Community Communication and Interaction: Tools, Techniques and Processes;
- User Interface of Community Information Services: Models and Applications;
- Multilingual Community Information Services: Indic Script based interface, processing and retrieval.

Fourth Semester

Major Elective

Course Code : **LIS-403A**
Course Title : **Community Information System**

Reading List

- Ainley, P. (1980). *Basics of community information: an action handbook for librarians*. London: Association of Assistant Librarians.
- American Library Association. (1966). *Minimum standards for public library systems*. Chicago: ALA.
- Bunch, A. (1982). *Community information services: the origin, scope and development*. London: Clive Bingley.
- Bunch, A. (1993). *The basics of community information work*. London: Library Association.
- Coleman, P. (1986). *Community information policy and provisions*. *ASLIB Proceedings*, 38 (9), 305-316.
- Croneberger, R., Kapecky, M., Luck, C., & Appalachian Adult Education Center (Morehead State University). (1975). *The library as a community information and referral center*. Morehead, Ky: Appalachian Adult Education Center, Morehead State University.
- Durrance, J. C., & Fisher, K. E. (2002). *Online community information: creating a nexus at your library*. Chicago, Ill: American Library Association.
- Durrance, J. C., & Schneider, K. G. (1996). Public library community information activities: Precursors of community networking partnerships. *Ann Arbor: School of Information, University of Michigan*. Retrieved March, 5, 1997. Available <<http://www.si.umich.edu>>
- Durrance, J.C. (1986). *Community information services: an innovation at the beginning of its second decade*. In *Advances in librarianship*, (Vol. V-13). Orlando: Academic Press.
- Keehan, A. L. (1980). *Establishing a local community information service: Part 1*. Library Board of Western Australia.
- LAWS Project Team: Integrated public sector vocabulary. (2005). Retrieved from <http://www.esd.org.uk/standards/ipsv/I.00/ipsv.doc>
- Library Association. (1980). *Community information: what libraries can do: a consultative document*. London: Library Association.
- Library of Congress (2006). *MARC 21 concise format for community information*. Washington: Library of Congress.
- Matthew, H. (1988). *Community information: a manual for beginners*. Newcastle-under-Lyme: AAL Pub.
- Mukhopadhyay, P. (2004). Community information services through web and CDROM: An open source framework for public libraries in India. Retrieved March 2014 from <http://www.drct.isibang.ac.in/xmlui/handle/1849/185>
- Mukhopadhyay, P. (2006). Public Library based Web-enabled Community Information System for Rural Development in India: Designing a FLOSS based Multilingual Prototype. Retrieved March 2014 from <https://drct.isibang.ac.in/handle/1849/408> (XXII IASLIC National Seminar. IIT, Roorkee, 2006. pp. 261-268).

- Mukhopadhyay, P. (2011). *Digital community information system: a framework for India*. Germany: LAP Lambert Academic Publishing.
- Neelameghan, A. (2006). E-communities, community knowledge and knowledge management. *KnowGenesis, International Journal of Technical Communication*, 1(2), 21-27.
- Pantry, S. (1999). *Building community information networks: strategies and experiences*. London: Library Association.
- Public Library Association. (1989). *Guidelines for establishing community information and referral services in public libraries, including a selective guide to the literature of community information and referral*. Chicago: American Library Association, Public Library Association.
- Rowlat, M. (2002). A new profile for citizens' (or community) information? *Ariadne*, 19, 1–10.
- Sarkhel, J. K. (2000). A generalized framework for the design and development of an area profile. *Vidyasagar University Journal of Library and Information Science*. 5; 2000; pp. 3 – 16.
- Turick, D. (1978). *Community information services in libraries*. New York: Library Journal.

Fourth Semester

Major Elective

Course Code : **LIS-403B**

Course Title : **Academic Library System**

Major Elective-III									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-403B	Academic Library System	Major Elective	5 Credit	4	2	0	40	10	20

Unit-1 Academic Libraries and their Users

- Higher education and libraries in India;
- Academic libraries – definition, meaning, importance, functions and types;
- Users of academic libraries – types of users and their needs, user study and user education;
- Structure and hierarchies of academic libraries, Role of UGC, AICTE, NCTE and other bodies in academic library development;
- Changing role of academic libraries – National and global scenario, Recommendations, Standards and Best practices.

Unit-2 Management of Academic Libraries

- Records management and library planning
- Collection Development/Resource Optimization ;
- Human Resource Management;
- Financial Management;
- Application of MIS, OR and TQM;
- Library Co-operative Organizations and Network services.

Unit-3 Services in Academic Libraries

- Traditional services;
- Documentation services;
- ICT enabled services;
- Advanced Scholars specific services; and
- Reference and information services to Research Scholars.

Unit-4 Change Management in Academic Libraries

- Effects of Globalization on Libraries;
- Generation Gap due to Knowledge based society;
- Change of academic environment and management style;
- Change of users interest and learning techniques; and
- **Leadership style and Qualities of Librarians.**

Unit-5 Introduction of new digital applications in Academic Libraries

- Application of Academic Library 2.0;
- International academic library scenario;
- Academic Library Repositories;
- Library e-resource management, policy and programmes; and
- Future trends in academic library development.

Fourth Semester

Major Elective

Course Code : LIS-403B
Course Title : Academic Library System

Reading List

- Applegate, Rachel (2010). *Managing the small college library*. Englewood, CO: Libraries Unlimited.
- Bavakutty, M. (1986). *College Libraries in India, Vol.7: A case study*. West Yorkshire: MCB University press.
- Bavakutty, M. (1988). *Libraries in higher education*. New Delhi: Ess Ess.
- Brophy, Peter (2005). *The academic library*. 2nd rev. ed. London: Facet Publishing.
- Budd, J. (1998). *The academic library: its context, its purposes, and its operation*. Englewood, CO: Libraries Unlimited.
- Cohen, Laura B. (2008). *Library 2.0 initiatives in academic libraries*. Chicago: ALA.
- Cowley, John (1982). *Personnel management in libraries*. London: Clive Bingley.
- Dale, P., Beard, J. & Holland, M. (2011). *University libraries and digital learning environments*. Aldershot (GB): Ashgate Publishing..
- Deshmukh, S. (2013). *Academic library: design and planning*. New Delhi: Neha Publishers & Distributors.
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- Hayes, Robert M. (1993). *Strategic management for academic libraries*. Westport, CT: Greenwood Press.
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- Johnson, Doug A. (2013). *The indispensable librarian: surviving and thriving in school libraries in the information age*. 2nd ed. Santa Barbara, CA: Linworth Books.
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- Singh, Sewa and Arora, M., Ed. (1995). *Handbook of college libraries: problems, finance and related aspects*. New Delhi: Beacon Books.
- Srivastava S.N. and Verma S.C., (1980). *University libraries in India*. New Delhi: Vikas.
- Trehan, G.L., (1985). *College library development*. New Delhi: Sterling Publishing.
- University Grants Commission. (2001). *Model curriculum: library and information Science*. New Delhi: UGC.

Fourth Semester

Major Elective

Course Code : LIS-403C

Course Title : Informetrics

Major Elective-III									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-403C	Informetrics	Major Elective	5 Credit	4	2	0	40	10	20

Unit-1 Introduction to Informetrics

- Librametry, Bibliometrics, Scientometrics, Informetrics – Meaning, Scope and features;
- Cybermetrics and Webometrics – Meaning, scope, features;
- Citations vs. Hyperlinks (Citations vs. Sitations);
- Altmetrics and Article-Level Metrics.

Unit-2 Citation analysis and its use

- Definition, Theory of citing, Why cited and why not cited;
- Different forms of citations and Citation counts;
- Journal Ranking; Age study and obsolescence;
- Authorship Collaboration; Self-citation, Productivity;
- Mapping of Science; Bibliographic coupling: Co-word, Co-citation coupling.

Unit-3 Theories, Laws and Indicators

- Bibliometric Laws: Lotka's Law, Bradford's Law, Zipf's Law;
- Other Empirical Laws of Price, Garfield, Sengupta, etc;
- Application of Bibliometric Laws in Web;
- Bibliometric indicators (Journal Impact factor, h-index and its derivatives, etc);
- Webometric indicators (Web Impact Factor, WISER, etc).

Unit-4 Bibliometric and Webometric Tools

- Bibliometric tools – SCI, SSCI, A&HCI, SCOPUS, Google Scholar, etc;
- Webometric tools – Generic search engines and specialized tools (LexiURL, SocSciBot, Internet Archive, Pajek, VosViewer etc.);
- **Altmetrics tools (Altmetric, ImpactStory, PloS, etc);**

Unit-5 Applications and Trends

- Bibliometrics projects, initiatives and services;
- Webometrics projects, initiatives and services;
- Altmetrics projects, initiatives and services;
- OA movement and Informetrics, Trends and future.

Fourth Semester

Major Elective

Course Code : LIS-403C

Course Title : Informetrics

Reading List

- Andres, A. (2009). *Measuring academic research: how to undertake bibliometric study*. Oxford: Chandos Publishing.
- Andrews, Penny & Leeds Metropolitan University. (2013). *Amplifying your research and academic profile – a researcher’s guide to social media and altmetrics*.
- Bandyopadhyay, A.K. (2003). *Bibliometrics with the help of computer*. Burdwan: R. Bandyopadhyay.
- Borgman, C. L. (1990). *Scholarly communication and bibliometrics*. Newbury Park: Sage Publications.
- Braun, T. (2007). *The impact factor of scientific and scholarly journals: Its use and misuse in research evaluation: a selection of papers reprinted mainly from the journal Scientometrics*. Budapest: Akadémiai Kiadó.
- Cronin, B., & Sugimoto, C. R., Ed. (2014). *Beyond bibliometrics: harnessing multidimensional indicators of scholarly impact*. Cambridge, Mass.: MIT Press
- De Bellis, N. (2009). *Bibliometrics and citation analysis: from the Science citation index to cybermetrics*. Lanham, MD: Scarecrow Press.
- Egghe, L. (2005). *Power laws in the information production process: Lotkaian informetrics*. Amsterdam: Elsevier/Academic Press.
- Egghe, L., & Rousseau, R. (1990). *Introduction to informetrics: quantitative methods in library, documentation, and information science*. Amsterdam: Elsevier Science Publishers.
- Egghe, L., Neelameghan, A., & Sarada Ranganathan Endowment for Library Science. (2000). *Lectures on informetrics and scientometrics*. Bangalore: Sarada Ranganathan Endowment for Library Science.
- Egghe, Leo. (2009). *Lotkaian informetrics and applications to social networks*. The Belgian Mathematical Society.
- Eom, S. B., & IGI Global. (2009). *Author co-citation analysis: quantitative methods for mapping the intellectual structure of an academic discipline*. Hershey, PA: IGI Global.
- Garfield, E. (1979). *Citation Indexing – Its theory and application in science and technology and humanities*. New York: John Wiley.
- Glazier, Jack D, & Hall, Peter M. (1992). *Qualitative research in information management*. Englewood, CO: Libraries Unlimited.
- Hjerpe, R. (1978). *An outline of bibliometrics and citation analysis*. Stockholm: Royal Institute of Technology Library.
- Ingwersen, P. (2012). *Scientometric indicators and webometrics – and the poly representation principle information retrieval*. New Delhi: Ess Ess Publications.
- Jalal, Samir Kumar, Biswas, S. C., & Mukhopadhyay, P. (2009). Bibliometrics to webometrics. *Information Studies*, 15(1), 3–20.
- Jalal, Samir Kumar, Biswas, S. C., & Mukhopadhyay, P. (2010). Web presence of selected Asian countries: A Webometric study. *COLLNET Journal of Scientometrics and Information Management*.

- Mukhopadhyay, Parthasarathi. (2002). The calculation of web impact factors for educational institutes of India: a webometric study. *Proceedings of the National Seminar on Information Management in Electronic Libraries (ImeL), Kharagpur, 2002. Indian Institute of Technology, Kharagpur 2002.* (pp. 531–539).
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- Sen, B. K., Indian National Science Academy, & Indian National Commission for History of Science. (2005). *Growth of scientific periodicals in India (1901-1947)*.
- Tague-Sutcliffe, J. (1992). *Informetrics*. New York: Pergamon Press.
- Tague-Sutcliffe, J. (January 01, 1992). An Introduction to Informetrics. *Information Processing and Management*, 28, 1, 1-3.
- Tattersall, A. (2014). *Altmetrics: A practical guide for librarians, researchers and academics*. London: Facet Publ.
- Thelwall, M.A. (2004). *Link analysis: an information science approach*. London: Elsevier Academic.
- Thelwall, M. (2009). *Introduction to webometrics: quantitative web research for the social sciences*. San Rafael: Morgan & Claypool.
- Wilson, Virginia & University of Saskatchewan. (2013). *Research methods: altmetrics*. University of Alberta Learning Services.

Fourth Semester

Major Elective

Course Code : LIS-403D

Course Title : Web Scale Library Discovery Services

Major Elective-III									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA	Total
LIS-403D	Web Scale Library Discovery Services	Major Elective	5 Credit	4	2	0	40	10	20

Unit-1 Introduction and overview

Library Discovery Services (LDS) - definition, meaning, scope; purposes, advantages and disadvantages; LDS- structures, components, workflow.

Unit-2 Initiatives and projects of LDS at national and international level

Unit-3 Tools and techniques of Web scale library discovery services

Unit-4 Trends and future of library discovery services

Unit-5 Practical components :


Integration process for creating research Hub

VuFind – installation, configuration, indexing and administration

Indexing MARC and XML data;

Configuration with DSpace, Koha, EPrints and GSDL

External resource indexing



Fourth Semester

Major Elective

Course Code : LIS-403D

Course Title : Web Scale Library Discovery Services

Reading List

- Vaughan, J. (2011). Web Scale Discovery Services. United States: American Library Association.
- Thompson, J. (2014). Implementing Web-Scale Discovery Services: A Practical Guide for Librarians. United States: Rowman & Littlefield Publishers.
- Managing Metadata in Web-scale Discovery Systems. (2016). Spain: Facet Publishing.
- Popp, M. P., Dallis, D. (2012). Planning and Implementing Resource Discovery Tools in Academic Libraries. Ukraine: IGI Global.
- Yang, S. Q., Li, L. (2015). Emerging Technologies for Librarians: A Practical Approach to Innovation. Netherlands: Elsevier Science.
- Digital Libraries and Institutional Repositories: Breakthroughs in Research and Practice. (2020). United States: Information Science Reference.
- Breeding, M. (2018). Index-Based Discovery Services: Current Market Positions and Trends. United States: American Library Association.
- Geng, L., Pun, P. N. I., Xie, J., Leung, B. T. H. (2019). Transferring Information Literacy Practices. Germany: Springer Singapore.
- Thanuskodi, S. (2015). Handbook of Research on Inventive Digital Tools for Collection Management and Development in Modern Libraries. United States: IGI Global.
- Mandal, S. (2020). Neoteric Library Technology. India: ABS Books.
- Discovery Tools: The Next Generation of Library Research. (2016). United Kingdom: Taylor & Francis.
- Popp, M. P., Dallis, D. (2012). Planning and Implementing Resource Discovery Tools in Academic Libraries. Ukraine: IGI Global.
- Reidsma, M. (2019). Masked by Trust: Bias in Library Discovery. United States: Litwin Books.
- Matthews, J. R. (2017). The Evaluation and Measurement of Library Services, 2nd Edition. United States: ABC-CLIO.
- Breeding, M. (2015). Library Services Platforms: A Maturing Genre of Products. United States: American Library Association.
- Breeding, M. (2012). Cloud Computing for Libraries. United States: American Library Association.
- E-discovery Tools and Applications in Modern Libraries. (2016). United States: IGI Global.
- Getting Resource Discovery Right for Your User Community. (n.d.). United Kingdom: American Library Association.
- Exploring Discovery: The Front Door to Your Library's Licensed and Digitized Content. (2016). United States: American Library Association.

Fourth Semester

Major Elective

Course Code : LIS-404A

Course Title : Semantic Digital Repository

Major Elective -IV										
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)				Marks Distribution		
Course Code	Course Title			L	T	P		End Sem	IA/PRC	Total
LIS-404A	Semantic Digital Repository	Major Elective	5 Credit	4	2	0	40	10	50	

Unit-1 Institutional Digital Repository

Genesis

Essential benefits of IDR

Aggregators

Projects of IDR

Integration of CMS and Visual Vocabulary with DSpace

Digital Media Archiving Cluster

Unit-2 Designing and configuration of IDR Software Framework in Generic Level

- Generic level software framework
- Digital media archiving framework
- Parameters selection for DMA cluster

Unit-3 Semantic Web Enabled IDR

- Key standards of Semantic IDR
- Concept of IDR in semantic level
- Designing and configuration of IDR in semantic level software framework
- Designing controlled and visual vocabulary (MultiTes and TemaTres)
- Semantic graph interface

Unit-4 Development of Museum related IDR

- Objectives of VRA Core in Omeka
- Installation and configuration
- Open source standards in image cataloguing and digital CMS
- Metadata Editor
- Single window based interface
- Bibliography management repository, e-book viewer and cloud computing



Unit-5 Development of document management and community communication repository

- Tools and standards requirement
- Components and objectives of document management system
- Installation and configuration of Providence
- Import based digital repository through Providence

Fourth Semester

Major Elective

Course Code : LIS-404A
Course Title : Semantic Digital Repository

Reading List

- Fensel, D., Domingue, J. (2011). Handbook of Semantic Web Technologies. Germany: Springer.
- Fensel, D., Domingue, J. (2011). Handbook of Semantic Web Technologies. Germany: Springer.
- Ma, Z. (2009). The Semantic Web for Knowledge and Data Management: Technologies and Practices. United States: Information Science Reference.
- Mandal, S. (2017). Development of Semantic Web Based Institutional Digital Repository: The New Way. Kolkata: Prova Prakashani.
- Groth, P., Harmelen, F. v., Hoekstra, R., Antoniou, G. (2012). A Semantic Web Primer. United Kingdom: MIT Press.
- Segaran, T., Evans, C., Taylor, J. (2009). Programming the Semantic Web. United States: O'Reilly Media.
- Breitman, K., Casanova, M. A., Truskowski, W. (2007). Semantic Web: Concepts, Technologies and Applications. United Kingdom: Springer.
- Spinning the Semantic Web: Bringing the World Wide Web to Its Full Potential. (2005). United Kingdom: MIT Press.
- Devedžic, V., Devedzic, V. (2006). Semantic Web and education. Netherlands: Springer US.
- Hendler, J., Allemang, D. (2011). Semantic Web for the Working Ontologist: Effective Modeling in RDFS and OWL. Netherlands: Elsevier Science.
- Maedche, A. (2012). Ontology Learning for the Semantic Web. United States: Springer US.
- Hitzler, P., Rudolph, S., Krotzsch, M. (2009). Foundations of Semantic Web Technologies. United States: CRC Press.
- Semantic Web: Revolutionizing Knowledge Discovery in the Life Sciences. (2007). Germany: Springer US.
- Lukácsy, G., Benkő, T., Szeredi, P., Nagy, Z. (2014). The Semantic Web Explained: The Technology and Mathematics Behind Web 3.0. United Kingdom: Cambridge University Press.

Fourth Semester

Major Elective

Course Code : **LIS-404B**

Course Title : **Open Access System**

Major Elective -IV									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-404B	Open Access System	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Open Access : Definition, Purpose/Need of Open Access, History of Open Access, Open Information and Data Resources (Open Data, Open Educational Resources)

- Unit-2**
- OA Pathfinders – DMOZ, DOAB, OATD;
 - Gold path of OA – DOAJ and Green path of OA - OpenDOAR, ROAR;
 - Open Data;
 - OA gateways – SSRN, PloS, OA federation – BASE, CORE;
 - OA educational resources and OA citation services.

- Unit-3**
- Promoting Open Access : OA Initiatives and Scenario, OA Supporters (Persons), OA Organizations, OA Journals (Fee-based and No-Fee based, Popular), OA Scholarly Publisher Association, OA Repositories, Institutional Repositories. Major OA Networks, Facilitators,
 - Coalitions and Initiatives (INASP, JISC, SPARC, SHERPA Project, Global OA Portal-
 - UNESCO, OpenAIRE, COAR, EOS, NDLTD)

- Unit-4**
- Open Access Mandates and Policies : Institutional Mandates (NIH Public Access Policy), National Centre for Atmospheric Research . Government level Mandates : UK , US , Europe, Canada, India ; Thesis Mandates –Shodhganga. Open Access Policy: Coalition of Open Access Policy Institutions (COAPI) , Rutgers Open Access Policy, , Publication Policies of Major Research Funders, IES Mandate, The World Bank OA Policy, UNESCO OA policy, Research Funders' Open Access Policies Data Archiving Policies

Fourth Semester

Major Elective

Course Code : **LIS-404B**
Course Title : **Open Access System**

Reading List

- Suber, P. (2012). Open Access. United Kingdom: MIT Press.
- Sharing your work in open access. (2015). France: United Nations Educational, Scientific, and Cultural Organization.
- Open access infrastructure. (2015). (n.p.): UNESCO Publishing.
- Thorpe, M. (1988). Role Development in an Open Access System: The 'know How' Needs of Tutorial and Counselling Staff at the Open University. United Kingdom: Open University, Teaching and Consultancy Centre.
- Kearsley, G. (1994). Public access systems: bringing computer power to the people. United States: Ablex Publishing Corporation.
- Das, A. K. (2008). Open Access to Knowledge and Information: Scholarly Literature and Digital Library Initiatives, the South Asian Scenario. India: United Nations Educational Scientific & Cultural Organization.
- Digital Systems for Open Access to Formal and Informal Learning. (2014). Germany: Springer International Publishing.
- Mikkonen, T., Scacchi, W., Lundell, B. (2012). Open Source Systems: Long-Term Sustainability: 8th IFIP WG 2.13 International Conference, OSS 2012, Hammamet, Tunisia, September 10-13, 2012, Proceedings. Germany: Springer Berlin Heidelberg.
- Chao, L. (2009). Utilizing Open Source Tools for Online Teaching and Learning: Applying Linux Technologies. Ukraine: Information Science Reference.
- Eve, M. P. (2014). Open Access and the Humanities: Contexts, Controversies and the Future. (n.p.): Cambridge University Press.
- Eve, M. P. (2014). Open Access and the Humanities: Contexts, Controversies and the Future. (n.p.): Cambridge University Press.
- Willinsky, J. (2006). The Access Principle: The Case for Open Access to Research and Scholarship. United Kingdom: MIT Press.
- Beyond open access: visions for open evaluation of scientific papers by post-publication peer review. (n.d.). (n.p.): Frontiers E-books.
- Mikkonen, T., Scacchi, W., Lundell, B. (2012). Open Source Systems: Long-Term Sustainability: 8th IFIP WG 2.13 International Conference, OSS 2012, Hammamet, Tunisia, September 10-13, 2012, Proceedings. Germany: Springer Berlin Heidelberg.

McGill, W., Clarke, O. E., Coutts, H. T., Stewart, J. D., Jones, A. (1915). Open Access Libraries: Their Planning, Equipment and Organisation. United Kingdom: Grafton.

Golden, B. (2005). Succeeding with Open Source. Switzerland: Addison-Wesley.

Fourth Semester

Major Elective

Course Code : LIS-404C

Course Title : Library and Information Profession and Related Agencies

Major Elective -IV									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	End Sem	IA/PRC	Total
LIS-404C	Library and Information Profession and Related Agencies	Major Elective	5 Credit	4	2	0	40	10	50

Unit-1 Librarianship as a Profession

- Definition, meaning;
- Profession vs. Occupation vs. Vocation;
- Characteristics of a Profession;
- Library and Information Science (LIS) as a Profession;

- Evolution of the LIS Profession;
- Transformation of the LIS Profession;
- Categories of LIS Professionals (Library Administrator, classifier, cataloguer, Indexer, Reference Librarian etc.)
- LIS Profession in India

Unit-2 Ethical Issues in Librarianship

- Ethics, Professional ethics, Code of ethics for LIS professional;
- Code of Ethics for LIS Profession in India;
- Facets of LIS Code of Ethics;
- Code of Ethics in Digital Era

Unit-3 Role of Professional Associations

- Role and Functions of Library Associations;
- Programmes and Activities of Library Associations;
- Library Associations in India (ILA, IASLIC etc.);
- Library Associations in USA and UK (ALA, CILIP etc.);
- International Associations (ASLIB, IFLA etc.);

Unit-4 Organisations and Institutions Involved in the Development of Library and Information Services

- International Organisations (e.g. Unesco);
- National Organizations (e.g.UGC, RRRLF);
- Global Information Systems (e.g. UNISIST, INIS, AGRIS);
- National Information Systems (e.g. NISSAT);
- National Information and Documentation Centres (e.g. NISCAIR, NASSDOC, DESIDOC)

Fourth Semester

Major Elective

Course Code :

LIS-404C

Course Title :

Library and Information Profession and Related Agencies

Reading List

Bhattacharya, G. Information Sciences. Calcutta: IASLIC, 1978. Print. Butler, P. "Librarianship as a Profession". Library Quarterly 21 (1951): 237. Print.

Chopra, H.R., U.C. Sharma and M.K. Srivastava. "Library Science and its Facets". 2 vols. Delhi: Ess Ess, 1998. 572. Print.

Dakhole, P.S. "Librarianship as a Profession". Library and Information Profession in India: Dr P.S.G. Kumar Festschrif. Vol.1, Part 1. Reflections and Redemptions Ed C.P.Vashisht and M.P.Satija, et al. Delhi: B.R.Publishing Corporation, 2004. Print.

Danton, J. Periam. "A Plea for a Philosophy of Librarianship". Library Quarterly 4(1934): 545. Print.

Fricke, Martin; Mathiesen, Kay; and Fallis, Don. "The Ethical Presuppositions behind the Library Bill of Rights." Library Quarterly 29 (2000): 468-91. Print.

- Greenwood, T. "Professional Ethics", *New Library World* 82. 973 (1981): 123-5.
- Kaula, P.N. "Library Science Today. Ranganathan Festschrift". BIS, 1965. Print.
- Lancour, H. "The librarians' Search for Status". Eds. Philip Ennis, H. and WingerHoward W. *Seven Questions about Profession of Librarianship*. Chicago:University of Chicago Press. 1962. 77. Print.
- Leigh, Robert D. "The Education of Librarians." In *The Public Librarian*, Alice Bryan. New York: Columbia University Press, 1952. pp. 66-69. Print.
- Mittal R.L. *Library Administration: Theory and Practice*. 5th ed. New Delhi:Ess Ess Publications, 2007. Print.
- Sills, David L., ed. *International Encyclopedia of the Social Sciences*. Vol. 1. New York: The Macmillan Company and The Free Press, 1968. Print.
- Bolton, C. K. "The Ethics of Librarianship: A Proposal for a Revised Code". *Annals of the American Academy of Political and Social Science* 101 (1922):138-146. Print.
- Broadfield, A. A. *Philosophy of Librarianship*. London: Grafton, 1949. Print.
- Chatterjee, Amitabha. "IASLIC. Towards a Code of Professional Ethics". Papers presented at the 11th National Seminar, Osmania University, Hyderabad, 1984. Print.
- "Towards a Code of Ethics for Library and Information profession in Indian Digital Era". *Proceedings of IASLIC National Conference held at Chennai, 2005*. 2008. 217-226. Print.
- Foskett, D.J. *The Creed of a Librarian: No Politics, No Religion, No Morals*. London: Library Association, 1962. Print.
- Kumar P.S.G. *Foundations of Library and Information Science; Paper I of UGC Model Curriculum*. Delhi: B.R. Publications, 2003. Print.
- Ludington, Flora B. *Code of Ethics for Librarians; Adopted by the Council of the American Library Association*. Chicago, Ill. : American Library Association, 1939. Print.
- Mukherjee, A. K. *Librarianship: Its Philosophy and History*. Delhi: Asia Publishing House, 1966. Print.
- Navalani, K, and Kiran Kathuria. "Code of Ethics. Library and Information Profession in India : Dr. P. S. G. Kumar Festschrift. Eds. C. P. Vashishth and M.P. Satija. Delhi: B. R. Publishing Corporation, 2004. Print.
- Usherwood, Bob. "Towards a Code of Professional Ethics". *Aslib Proceedings* 33 (1981): 233-42. Print.
- Stern, J. *Encyclopedia of Library and Information Science*. Vol. 1. New York: Marcell Dekker, 1968. 666. Print.
- Stevenson, Grace T. "American Library Association". *Encyclopedia of Library and Information Science*. Vol. 1. New York: Marcel Decker, 1968. 267-302. Print.

Fourth Semester

Major Elective

Course Code : LIS-404D

Course Title : Library Functions and Operations

Major Elective -IV										
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)				Marks Distribution		
Course Code	Course Title			L	T	P		End Sem	IA/PRC	Total
LIS-404D	Library Functions and Operations	Major Elective	5 Credit	4	2	0	40	10	50	

Unit-1 Basic Housekeeping Operations

- Meaning, purpose;
- Acquisition Process, Problems in Acquisition of Sources, Document Procurement Methods, Accession Routines, Acquisition of Serials;
- Processing Work, Circulation, serials control;

Unit-2 Physical Infrastructure Planning

- Library Buildings – need of library building, changing concept of building, space needs of library building;
- Planning for a Library Building;
- Quality aspects of a Library Building;
- Disaster Management;
- Library Furniture

Unit-3 Maintenance and Preservation

- Preservation – meaning, need;
- Causes of Deterioration of Library Materials;
- Preventive Preservation;
- Physical Maintenance, Repair and Binding;
- Stock Verification;
- Weeding

Unit-4 Disaster Management(DM)

- DM – overview;
- Causes of Disasters;
- Disaster Management Planning;
- Security System - insurance

Fourth Semester

Major Elective

Course Code :

LIS-404D

Course Title :

Library Functions and Operations

Reading List

- C. Jenkins, and M. Morley. Collection Management in Academic Libraries. 2nded. London: Gower, 1999. Print.
- Chapman, L. Managing Acquisition in Library and Information Services. London:Library Association, 2001. Print.
- Clayton, Peter, and G.E. Gorman. Managing Information Resources in Libraries.London: Library Association, 2001. Print.
- Curtis, Donnelly, et al. Developing and Managing Journal Collection. New York:Neal Schuman, 2000. Print.
- Evans, G. Edward. Developing Library and Information Centre Collection. 4thed. Colorado: Libraries Unlimited, 1999. Print.
- Fowler, David C., ed. E-serial Collection Management: Transition, Trend and Technicalities. London: Haworth, 2004. Print.
- Gorman, G.E., and R.H. Miller. Collection Management for the 21st Century: A Handbook for Librarians. Westport, Conn: Greenwood Press, 1997. Print.
- Graham, Margret, and Fiona Buetell, eds. Serial Management: A Practical Handbook. London: Aslib, 1990. Print.
- Ingersoll, Patricia, and John Culshaw. Managing Information Technology: A Handbook for System Librarians. London: Library Unlimited, 2004. Print.
- Lee, Stuart D. Electronic Collection Development: A Practical Guide. New York:Neal Schuman, 2002. Print.
- Lee, Sul H., ed. Digital Information and Knowledge Management: New Opportunities for Research Libraries. London: Haworth, 2007. Print.
- Leonhardt, T.W., ed. Handbook of Electronic and Digital Acquisition. London:Haworth, 2006. Print.
- Mc Muller, Susan, et al. "Collection Development Strategies for Online Aggregated Databases". Handbook of Electronic and Digital Acquisitions.Ed.T.W. Leonhardt. New York: Haworth, 2006. 61-90. Print.
- Nisonger, Thomas E. Managing Serials in Libraries. London: Libraries Unlimited, 1998. Print.
- Osborne, A.D. Serial Publications: Their Place and Treatment in Libraries.3rded. Chicago:A L A, 1980. Print.
- Evans, G. Edward. Developing Library and Information Center Collection.Colorado: Libraries Unlimited, 1990. Print.
- Graham, Margaret E., and Fiona Buettel, eds. Serials Management: A Practical Handbook. London: Aslib, 1990. Print.
- Krishan Kumar. Library Manual. New Delhi: Vikas, 1982. Print.
- Mittal,R.L. Library Administration. New Delhi: Metropolitan, 1984. Print.
- Agrawal, O.P. Preservation of Art Objects and Library Materials. New Delhi:NBT, 1993. Print.

- Anthony, L.J. "Planning Library and Information Services". Handbook of Special Librarianship and Information Work. Ed. W.E. Batten. London: Aslib, 1975. Print.
- Bisbrouck, Marie Françoise, and Marc Chauveic, ed. Intelligent Library Buildings: Proceedings of the Tenth Seminar on Library Building and Equipments. Hague: IFLA, 1997. Print.
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Fourth Semester

Core Course

Course Code :

LIS-405

Course Title :

Guided Research Project

Project									
Name of courses		Type	Credit	Pattern of Teaching-learning (hours per week)			Marks Distribution		
Course Code	Course Title			L	T	P	Field survey and project Writing	Viva-voce/ Presentation	Total
LIS-405	Guided Research Project	Core	5 Credit	0	0	5	40	10	50

LIS-405 (Project paper/Practical Paper): Based on Survey Report, Assignment, Presentation and Viva-Voce.

Presentation and Viva-Voce (in the presence of external experts from other Universities/Institutions)