

DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

Master of Library & Information Science (M. Lib. I. Sc.)

NEP-2020 based Syllabus



2026

CENTRAL UNIVERSITY OF TAMIL NADU THIRUVAVUR

**Master of Library & Information Science
(M. Lib. I. Sc.)**

**Revised Curriculum
as per
National Education Policy - 2020**

(w.e.f. AY 2026-2027)



BOS Approved: 13.04.2026

**Department of Library & Information Science
School of Communication
Central University of Tamil Nadu, Thiruvarur
2026**

Introduction

Information access, processing, arrangement, dissemination, and the other various information services available to individuals, all play a significant role in the development of society. The twenty-first century is the era of information and knowledge, and an ever-increasing number of institutions and organisations based on information and knowledge are rising. The Master of Library and Information Science programme will develop the necessary human resources for information and knowledge-based organisations.

The Master of Library and Information Science (M. Lib. I. Sc.) course curriculum, which is based on NEP-2020, is given with Multiple Entry (lateral entry) and Multiple Exit (lateral exit) options. The Two-Year Postgraduate/Master's Degree Programme will have an exit point after the first year (second semester). With effect from the academic session 2023–2024, students who successfully complete the first year of study and leave the programme will receive a Postgraduate Diploma equating to a Bachelor of Library and Information Science (B. Lib. I. Sc.), and those who successfully complete the second year (fourth semester) will receive a Master of Library and Information Science (M. Lib. I. Sc.).

The Master of Library and Information Science (M. Lib. I. Sc.) programme prepares the student with professional competencies, opportunities in a wide spectrum of jobs in libraries, archives, publishing firms, the corporate sector, and firms associated with information products and services. The salient features of the curriculum are:

- The curriculum covers different aspects of nascent Library and Information environments in which students will eventually work.
- The courses covered in this programme include an interdisciplinary approach of knowledge and information.
- This programme helps the students to gain competencies that will allow graduates to begin successful careers in libraries and information environments.
- This programme will make students understand the use of information and communication technologies including social aspects of information in providing information resources and services.
- The graduates of this programme will demonstrate knowledge of setting up a library or information centre.
- Students will have the competencies in planning and implementing information services.
- The graduates of this course will have the capability for community and interdisciplinary collaboration, which is very much required for library and information science.
- The students will demonstrate the values and ethics of the library and information science profession.

Eligibility for Admission

The programme requires completion of a Bachelor's Degree of minimum of 3 years duration or its equivalent (under the 10+2+3 or 10+2+4 or 10+2+5) in any discipline. The candidates with a score of minimum 55% in General Category, 50% in OBC (non-creamy layer) Category and 45% in SC/ST/PWD Category are eligible to apply.

Multiple Entry- Multiple Exit Option

There will be lateral entry provisions, but at any moment of time, the total intake may not exceed the total intake capacity of the programme.

A. Vision

Vision Statement of the Department

To foster cutting-edge research, produce top-notch knowledge workers, and encourage student participation in the learning process in order to nurture the development of innovative minds.
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B. Mission

Mission Statements of the Department

M1	To impart high quality education in concomitant to international standards with employable skills and expertise.
M2	To integrate theoretical knowledge with practical skills and training.
M3	To inculcate excellence through high quality research and publications.
M4	To keep abreast with the new technologies in teaching and research.

C. Program Educational Objective (PEO)

After two years of successful completion of the program, the student will be able to

PEO1	Gain competencies that will allow graduates to begin successful careers in libraries and information environments.
PEO2	Understand the use of information and communication technologies including social aspects of information in providing information resources and services.
PEO3	Demonstrate knowledge of setting up a library or information centre.
PEO4	Have the capability for community and interdisciplinary collaboration, which is very much required for library and information science.
PEO5	Demonstrate the values and ethics of library and information science profession.

D. Graduate Attributes for M. Lib. I. Sc. Program

- **Disciplinary Knowledge:** Content and practical knowledge with the LIS profession.
- **Communication Skills:** Possess clarity in conveying the ideas and client interaction.
- **Critical Thinking:** Capacity to apply analytical thought in the practical aspects of librarianship.
- **Problem Solving:** Participate in the problem solving with professionals and users and applying the knowledge in the day-to-day professional activities.
- **Cooperation:** Appreciate collaboration and cooperation among stakeholders of the library and information centres.
- **ICT Skills:** Selecting and integrating appropriate ICT skills for professional development.
- **Ethics:** Doing what is right to society and inculcating professional ethics.
- **Self-Directed Learning:** Developing autonomy and self-regulation in learning and professional development.
- **Reasoning:** Ability to interpret and draw the conclusion and find solutions in the professional activities with open-mindedness.
- **Creativity:** Ability to produce new ideas.
- **Societal and Environmental Concern:** Performing an act or solving a problem with respect to societal and environmental concern.
- **Lifelong Learning:** Understands the need for learning and practices it throughout the professional life.

E. PEO to Mission Statement Mapping

	PEO1	PEO2	PEO3	PEO4	PEO5
M1	3	3	3	3	3
M2	3	3	3	3	3
M3	1	2	1	2	3
M4	2	3	2	3	3

F. Program Outcomes (PO)

On the successful completion of the program, the student will be able to

PO1	The graduates will be able to begin successful careers in libraries and information centers based on achieved competencies.
PO2	The graduates will be able to understand the use of information and communication technologies including social aspects of information in providing information resources and services.
PO3	The graduates will be able to initiate and manage the new setup of libraries and information centers.
PO4	The graduates will be able to provide the library services to the user community and be able to collaborate with other industry stakeholders for effective functioning of libraries & information centers.
PO5	The graduates will be able to display a high order of professionalism in providing information services to the users.

G. PO to PEO Mapping

	PO1	PO2	PO3	PO4	PO5
PEO1	3	3	3	3	3
PEO2	3	3	2	3	3
PEO3	2	3	3	2	1
PEO4	2	3	2	3	3
PEO5	3	2	3	2	3

Program Structure of M. Lib. I. Sc.
(As per NEP-2020 & NCrF Guidelines)

SN	Course Code	Course Name	Credit Pattern				Hours /Week	Marks System		
			L	T	P	Total		CIA	Sem.	Total
FIRST SEMESTER										
1	LIS2011	Foundation of Library & Information Science	4	0	0	4	4	40	60	100
2	LIS2012	Management of Library & Information Centres	4	0	0	4	4	40	60	100
3	LIS2013	Knowledge Organisation – Classification Theory	3	0	0	3	3	40	60	100
4	LIS2014	Knowledge Organisation – Classification Practice	0	0	3	3	6	100	---	100
5	LIS2015	Basics of Information Technology - Theory	3	0	0	3	3	40	60	100
6	LIS2016	Basics of Information Technology - Practice	0	0	2	2	4	100	---	100
7	LIS2017	Information Sources, Systems & Services	4	0	0	4	4	40	60	100
Total			18	0	5	23	28	400	300	700
SECOND SEMESTER										
8	LIS2021	Knowledge Organisation – Cataloguing Theory	3	0	0	3	3	40	60	100
9	LIS2022	Knowledge Organisation – Cataloguing Practice	0	0	3	3	6	100	---	100
10	LIS2023	Marketing of Information Products & Services	3	0	0	3	3	40	60	100
11	LIS2024	ICT Application in Libraries - Theory	3	0	0	3	3	40	60	100
12	LIS2025	ICT Application in Libraries - Practice	0	0	3	3	6	100	---	100
13	LIS2026	Internship	0	0	2	2	--	100	---	100
14	LISOE01	Digital Literacy	3	0	0	3	3	40	60	100
15	LISVA01*	Libraries and Sustainable Development Goals	2	0	0	0	2	--	---	--
16	LISEC01	Preservation & Conservation of Library Materials	3	0	0	3	3	40	60	100
	####	MOOCs								
Total			15	0	8	23	29	500	300	800

THIRD SEMESTER										
17	LIS2031	Research Methodology	4	0	0	4	4	40	60	100
18	LIS2032	Information Processing and Retrieval	4	0	0	4	4	40	60	100
19	LIS2033	Web Technology	4	0	0	4	4	40	60	100
20	LIS2034	Ontology and Semantic Web	4	0	0	4	4	40	60	100
21	LIS2035	Digital Library & Content Management - Practice	0	0	2	2	4	100	---	100
22	LISEC02	Academic Library System	4	0	0	4	4	40	60	100
	LISEC03	Public Library System								
	####	MOOCs								
23	LISSE01	Personality Development & Communication Skills	2	0	0	2	2	40	60	100
Total			22	0	2	24	26	340	360	700
FOURTH SEMESTER										
24	LIS2041	Project Work/ Dissertation & Viva-Voce	0	8	0	8	16	---	100	100
25	LIS2042	Intellectual Property Rights	3	0	0	3	3	40	60	100
26	LISEC04	Technical Communication	4	0	0	4	4	40	60	100
	LISEC05	Knowledge Management								
27	LISEC06	Informetrics & Scientometrics	4	0	0	4	4	40	60	100
	LISEC07	Information Needs & Seeking Behaviour								
28	LISEC08	Information Literacy	3	0	0	3	3	40	60	100
	LISEC09	Open Access & E-Resource Management								
Total			14	8	0	22	30	160	340	500
Grand Total			69	8	15	92	---	1400	1300	2700
OE=Open Elective Course; VA=Value Added Course; EC=Discipline Specific Electives, SE=Skill Enhancement Course (Soft Skill Course) *Credit shall not be counted. MOOC=Online Course (The students may choose relevant Postgraduate level MOOC courses from UGC recognized platforms such as Swayam, NPTEL etc. The course should be reviewed by the Department MOOCs coordinator and approved by the internal members of the BoS. The credit transfer and other formalities of MOOCs will be based on UGC Regulations on MOOCs and standard norms of CUTN.										

Additional Open Elective Course (Odd Semester)

Odd Semester Open Elective										
29	LISOE02	Artificial Intelligence and Ethics	3	0	0	3	3	40	60	100

Course Summary

Course Category	No. of Courses	Total Credits
Core Courses (CC)	14	54
Core Courses Practical (CCP)	5	13
Discipline Specific Electives (DSE)	5	18
Open Elective Course (OE)	1	3
Soft Skill Course (SS)	1	2
Internship	1	2
Total	27	92
Value Added Course (VAC)	1	2

FIRST SEMESTER

SN	Course Code	Course Name	Credit Pattern				Hours /Week	Marks System		
			L	T	P	Total		CIA	Sem.	Total
FIRST SEMESTER										
1	LIS2011	Foundation of Library & Information Science	4	0	0	4	4	40	60	100
2	LIS2012	Management of Library & Information Centres	4	0	0	4	4	40	60	100
3	LIS2013	Knowledge Organisation – Classification Theory	3	0	0	3	3	40	60	100
4	LIS2014	Knowledge Organisation – Classification Practice	0	0	3	3	6	100	---	100
5	LIS2015	Basics of Information Technology - Theory	3	0	0	3	3	40	60	100
6	LIS2016	Basics of Information Technology - Practice	0	0	2	2	4	100	---	100
7	LIS2017	Information Sources, Systems & Services	4	0	0	4	4	40	60	100
Total			18	0	5	23	28	400	300	700

Course Code : LIS2011
Course Name : Foundation of Library and Information Science

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will become familiar with the basic concepts in Library & Information Science.

	Course Outcome	Level
CO 1	Understand the libraries in social perspective and its role in education and cultural development	Understand
CO 2	Explain various types of libraries and differentiate between their features and functions	Understand
CO 3	Interpret the five laws of Library Science in current information environment and use them while designing library services	Apply
CO 4	Examine various laws related to libraries, their regulations and provisions	Analyze
CO 5	Understand the ethics and standards of library profession and execute professionalism through earning required skills and competencies	Apply

b. Syllabus

Units	Content	Hrs.
I	Library in the Social Perspective Development of Libraries – Ancient to Modern; Library – Changing Concepts; Role of Libraries in Modern Society and Education; Library as Spaces for Learning and Innovation; Makerspaces; Library and Information Science Education in India; Five Laws of Library Science and their Implications.	12
II	Information and its Perspectives Data, Information and Knowledge – Nature, Properties and Conceptual Differences; Information Society – Information as a Commodity and Economic Resource; Information Science: Definition, Scope and Objectives.	12
III	Types of Libraries: Features and Functions National Libraries – India, UK, USA; Public Libraries; Academic Libraries – School, College and University; Special Libraries, Corporate Libraries.	12
IV	Legislation related to Libraries Library Legislation: Need and Essential Features; Library Legislation in India; Model Public Library Bill; Press and Registration of Books Act; Delivery of Books and Newspapers (Public Libraries) Act; Copyright Act.	12

V	Library and Information Science Profession Librarianship as a Profession; Professional Skills and Competencies; Professional Ethics and Standards; Role of Professional Associations: International Associations (IFLA, CILIP, ALA etc.), National Associations (ILA, IASLIC, etc.); Contributions of RRRLF and INFLIBNET.	12
	Tasks and Assignments: Each student is required to do the following: Task 1: Compare the Public Library Acts of Tamil Nadu and Kerala and find out the similarities and differences. Task 2: Prepare and submit assignment on the activities of National Library of India. Task 3: Take seminar with PPTs on ALA Code of Ethics for Library Professionals.	
	References: 1. Baker, D. (2011). Libraries and society: Role, social responsibility and future challenges. Oxford. 2. Bawden, D., & Robinson, L. (2022). Introduction to information science, 2nd ed. ALA Neal-Schuman. 3. Choudhury, G. G. et al. (2004). Librarianship: An introduction. London: Facet. 4. Dhiman, A. K. (2008). Handbook of special libraries and librarianship. New Delhi: Ess Ess Publication. 5. Dhiman, A. K. and Sinha, S. C. (2002). Academic Libraries. New Delhi: Ess Ess Publication. 6. Feather, J. (2013). The information society: a study of continuity and change. Facet Publishing. 7. Khanna, J. K. (1994). Library and society. New Delhi: Ess Ess Publications. 8. Kumar, P. S. G. (2002). Student's manual of Library and Information Science. New Delhi: B R Publishing Corporation. 9. Kumar, P. S. G. (2008). Library in India Series. New Delhi: B. R. Publishing Corporation. 10. Lester, J., & Wllace, C. (2007). Fundamentals of Information Studies: Understanding Information and its Environment. Neal-Schuman Publishers, Inc. 11. Ranganathan, S. R. (1988). The Five Laws of Library Science. New Delhi: Sarada Ranganathan Endowment for Library Science. 12. Raval, A. K. (2013). Handbook of Public Library System. New Delhi: Discovery Publishing. 13. Rubin, Richard E. & Rubin, Rachel, G. (2020). Foundations of Library and Information Science. 5th ed. ALA Neal-Schuman. 14. Sharma, S K. (1987). Libraries and Society. New Delhi: Ess Ess Publication. 15. Totterdell, A., Gill, J., & Hornsey, A. (2005). An Introduction to Library and Information Work. Facet Publishing.	

c. Mapping of Program Outcomes with Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	1	2	3	3	3
CO2	2	3	3	2	2
CO3	3	2	3	2	2
CO4	2	2	3	1	1
CO5	3	3	3	2	3

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	CO2	CO3	CO4	CO5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3

2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3
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h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO4, CO5,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO4, CO5

Course Code : LIS2012
Course Name : Management of Library and Information Centers

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to manage the library & information centers effectively.

	Course Outcome	Level
CO 1	Explain the basic management concepts and techniques.	Understand
CO 2	Illustrate the applications of management techniques in the library & information centers.	Apply
CO 3	Examine the various aspects of library management.	Analyze
CO 4	Formulate the practical aspects of quality control in library management.	Create
CO 5	Assesses the outcome of the new managerial techniques in LICs.	Skill

b. Syllabus

Units	Content	Hrs.
I	Fundamentals of Management Management: Concepts, Definition, Scope; Management Styles and Approaches; Management Schools of Thought; Classical, Neo-classical and Modern Management Theories; Principles of Scientific Management; Fayol's Principles; POSDCORB.	12
II	Library Management Different Sections of LICs and their functions: Acquisition, Technical Processing, Circulation, Serial Control, Maintenance, Stock Verification, Weeding Out of Books, ICT related Routine Works; Good Offices Committee; Evaluation of Library Collection; Library Statistics; Annual Reports; Library Committees.	12
III	Resources Management Collection Development and Management; Space, Furniture and Equipment; Human Resource Management: Job Analysis, Job Description, Job Classification, Selection and Recruitment, Performance Appraisal; Financial Resources: Budgeting, Accounting, Auditing; Resource Mobilisation; Outsourcing: Problems and Prospects.	12
IV	Library Quality Control Standards on Library Building and Furniture; Planning of Library Building; Green Library Standards; Library Security; Sustainable Library; Total Quality Management (TQM); Six Sigma; Tools for Evaluating Service Quality (LibQual etc.); Library Standards: ISO Standards.	12

V	Systems Analysis and Design Systems Theory; Open and Closed Systems; Project Management Techniques – PERT/CPM, Decision Tables; Data Flow Diagram; SWOT Analysis; New Management Approaches: Change Management, Crisis Management, Conflict Management, Disaster Management.	12
	Tasks and Assignments: Each student is required to do the following: Task 1: Prepare a case study on SWOT analysis of a university library system. Task 2: Create a model budget of an academic library. Task 3: Submit a note on the new management techniques.	
	References: 1. Beardwell, Ian; Holden, Len & Claydon, Tim. (2004). Human Resource Management: A contemporary approach. 4th ed. London: Prentice Hall. 2. Bryson Jo. (1996). Effective Library and Information Management. Jaico Pub. House. 3. Drucker, Peter F. (2002). Management Challenges for the 21st century. Oxford: Butterworth Heinemann. 4. Evans, G. Edward & Layzell, Patricia. (2007). Management Basics for Information Professionals, 2 Ed. Libraries unlimited. 5. Johnson, P. (2014). Fundamentals of collection development and management. American Library Association. 6. Johnson, Peggy. (2009). Fundamentals of Collection Development and Kumar, Krishan (1987). Library Administration and Management. New Delhi: South Asia Books. 7. Khanna, J. K. (2008). Managing university and college library. Delhi: Sanjay Prakashan. 8. Kumar, Krishan (2007). Library Management in Electronic Environment. New Delhi: Har Anand Publications Pvt. Ltd. 9. Mittal, R. L. (2007). Library Administration: Theory and Practice. New Delhi: Ess Esss Publications. 10. Narayana, G J. (1991). Library and Information management. Prentice Hall of India. 11. Paton, Robert A. (2000). Change Management. Response Books. 12. Ranganathan, S. R. (2006). Library Administration. New Delhi: Ess Ess Publications. 13. Redfern, B. (1995). Studies in library management. London: Clive Bingley. 14. Rowley, Jennifer (2001). Information Marketing. Ashgate Publishing Limited. 15. Sharma, C K and Kiran Singh. (2005). Library management. Delhi: Atlantic. 16. Stoner, James A F (et.al). (1996). Management: Global Perspectives. 10th ed. McGraw Hill Inc. 17. Stueart, Robert D & Moran, B. (2007). Library and Information Centre Management. 7th ed. Libraries Unlimited.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5

2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5
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h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

Course Code : LIS2013
Course Name : Knowledge Organisation – Classification Theory

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to do rational assessment on various knowledge organization schemes.

	Course Outcome	Level
CO 1	Explain the universe of knowledge and modes of subject formation	Remember
CO 2	Understand the theories and principles of knowledge organization	Understand
CO 3	Developing a theoretical base on different classification schemes	Apply
CO 4	Examine various library classification schemes	Analyse
CO 5	Apply the theories of knowledge organization in digital environment	Skill

b. Syllabus

Units	Content	Hrs.
I	Knowledge Organization Universe of Knowledge; Nature, Attributes and Characteristics of Subjects; Modes of Formation of Subjects; Mapping of Knowledge in Library Classification Schemes; Need and Purpose of Library Classification Schemes.	9
II	Notation and Call Number Notation Systems in Library Classification Schemes - Concept, Types, Functions, Qualities and Techniques; Hospitality; Call Number – Concept, Methods and Tools.	9
III	Theories of Classification Schools of Classification; Normative Principles; Three Planes of Work; Canons of Classification; Concept of Fundamental Categories and Facet Analysis; Principles and Postulates of Helpful Sequence.	9
IV	Classification Schemes Library Classification Schemes – Structure, Approaches, Features of Library Classification Schemes; Salient Features of Dewey Decimal Classification (DDC), Universal Decimal Classification (UDC), Colon Classification (CC).	9
V	Recent Trends in Knowledge Organization Application of Knowledge Organization in Website Designing; Faceted Search; Simple Knowledge Organization Systems (SKOS); Ontologies; Recent Applications of Knowledge Organization; Integration of Classification Theories with Artificial Intelligence (DeepSeek, R1 Algorithm, Annif); Ranganathan's Faceted Principles with Knowledge Graph; Application of Faceted Principles with Digital Resources; WebDewey and Classification Web.	9

	Tasks and Assignments: Each student is required to do the following: Assignment 1: Prepare a concept map of Ranganathan's theory of knowledge organization. Assignment 2: Critically evaluate a given classification scheme.	
	References: 1. Bowman, J. H (2004). Essential Dewey. Facet Publishing. 2. Broughton, Vanda. (2004). Essential Classification. Facet Publishing. 3. Foskett, A. C. (2002). The Subject Approach to Information. Facet Publishing. 4. Kao, Mary L. (2003). Cataloguing and Classification for Library Personnel. Jaico. 5. Kumar, P. S. G. (2003). Knowledge Organization, Information Processing and Retrieval Theory. B. R. Publishing. 6. Pathak, L. P. (2000). Sociological Terminology and Classification Schemes. Mittal Publications. 7. Ranganathan, S. R. (2006). Philosophy of Library Classification. Ess Ess Publications. 8. Ranganathan, S. R. (2006). Prolegomena to library classification. Ess Ess Publications. 9. Satija, Mohinder P. (2013). The theory and practice of the Dewey decimal classification system. Elsevier, 2013. 10. Taylor, A. G. (2007). Introduction to Cataloguing and Classification. 10th Ed. Atlantic	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	3	1	3
CO 2	3	3	3	2	3
CO 3	2	3	3	3	3
CO 4	3	3	1	3	2
CO 5	3	3	1	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO4, CO5,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO4, CO5

Course Code : LIS2014
Course Name : Knowledge Organisation – Classification Practice

Credit Distribution			Total Credits	Internal Marks					Total Marks
L	T	P	L+T+P	C1	C2	C3	C4	C5	C1+...+C5
0	0	3	3	20	20	20	20	20	100

a. Course Outcome (CO)

After completion of the course, students will be able to:

	Course Outcome	Level
CO 1	Explain the use of library classification schemes.	Understand
CO 2	Illustrate the classification of documents.	Apply
CO 3	Examine and construct the class numbers for documents.	Analyze
CO 4	Formulate the solutions for the organization of information.	Create
CO 5	Assess the proficiency with the help of schemes.	Skill

b. Syllabus

Units	Content	Hrs.
I	Scheme 1: Dewey Decimal Classification – Practice Classification of Macro and Micro documents using specified edition of DDC.	18
II	Scheme 2: Universal Decimal Classification – Practice Classification of Macro and Micro documents using specified edition of UDC.	18
III	Scheme 1: Dewey Decimal Classification – Practice Classification of Documents with Simple, Compound and Complex Subjects using DDC. Standard Subdivisions and Other Tables.	18
IV	Scheme 2: Universal Decimal Classification – Practice Classification of Documents with Simple, Compound and Complex Subjects using UDC. Auxiliary Tables, Add Notes from Schedules.	18
V	Add to Instructions Synthesize Class Numbers by using the Tables and ‘Add to Instructions’ of DDC and UDC Schemes.	18
	Tasks and Assignments: Each student is required to do the following: Task 1: Classify the simple, compound and complex subject documents by using DDC. Task 2: Classify the simple, compound and complex subject documents by using UDC scheme.	
	References: 1. Dewey Decimal Classification and Relative Index, OCLC. 2. Universal Decimal Classification, UDC	

	3. British Standards Institute (2006). Universal Decimal Classification. 2 vols. Standard ed. London: BSI. 4. Dewey, Melvil and Mitchell, Joan S. (2011). Dewey Decimal Classification and Relative Index. 23rd ed. Dublin: OCLC 5. Chan, Lois Mai [et al.] (1996). Dewey decimal classification: A Practical Guide. 2nd ed. revision for DDC-21. Albany, New York: Forest Press	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	1	3	2	3
CO 2	3	1	3	3	3
CO 3	3	1	3	2	3
CO 4	3	1	3	2	3
CO 5	3	2	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal 1	10	10	10	10	10	50
Internal 2	10	10	10	10	10	50
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (100 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Test	19	19	19	19	19
Attendance	1	1	1	1	1
Total	20	20	20	20	20

f. Rubric for Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2015
Course Name : Basics of Information Technology - Theory

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to learn the basics of computers, programming languages and file organization.

	Course Outcome	Level
CO 1	Explain the information technology (IT) basics.	Understand
CO 2	Illustrate and explain the computer and its peripherals.	Apply
CO 3	Examine the various operating systems application software.	Analyze
CO 4	To make awareness of the programming languages and their functions.	Create
CO 5	Examine and assesses the data representation in computers and file representation.	Skill

b. Syllabus

Units	Content	Hrs.
I	Information Technology Meaning, Definitions, Evolution, Scope, Types, Components, and Functions of IT; Benefits of IT; Applications of IT; IT Career Paths; Ethical Issues in Information Technology: Ownership Rules & Ethics and Online Content.	9
II	Introduction to Computer Historical Developments, Generation and Classification of Computers; Characteristics/Benefits of Computer; Components of Computer: Central Processing Unit, Input and Output Devices, Internal and External Storage Devices; Modern Trends in Computing: Cloud Computing, Artificial Intelligence (AI), Internet of Things (IoT), Quantum Computing.	9
III	Operating System and Application Software System Software: Purpose, Types of Operating Systems, Common Operating Systems – Microsoft Windows, LINUX, UNIX; Application Software: Word Processors, Spreadsheets, Presentation Software; Emerging Trends in Application Software: Cloud-based Productivity Suites, AI-Powered Tools, Collaborative Real-time Editing, Cross-platform and Mobile Compatibility.	9
IV	Programming Languages & DBMS Machine Language, Assembly and High-Level Programming Languages; Algorithms and Flow-Charts; Query Languages; Database Management System (DBMS): Definition, Objectives, Functions, Types and Elements of DBMS.	9
V	Data Representation & File Organisation	9

	Data Representation in Computers; Number Systems: Binary, Decimal, Octal and Hexadecimal; Conversion of Binary; Character Encoding Standards: ASCII, EBCDIC, ISCII and UNICODE; File Management: File & Folder Properties, Locating Files, File Operations, File Compression & Decompression, File Backup; File Access Methods in OS.	
	Tasks and Assignments: Each student is required to submit the following: Task 1: Prepare a note on the information technology. Task 2: Make a presentation on the computer peripherals. Task 3: Enumerate the features on operating systems. Task 4: Discuss programming languages and DBMS. Task 5: Explain various number systems and the encoding standards.	
	References: 1. Alexander, Tom & Mathew, Joe. (2012). Computer and Information Technology. New Delhi: Neha Publishers & Distributors. 2. Arvind Kumar. Ed. (2006). Information Technology for all (2vols.). New Delhi: Anmol. 3. Bach, Maurice J. (2015). Design of the Unix Operating Systems. Pearson. 4. Bansa, S. K. (2005). Information Technology and Globalisation, New Delhi: A. P.H. Publishing Corporation. 5. Bansandra, S. K. (2002). Computer Today, New Delhi, Galgotia. 6. Date, C. J. (2003). An Introduction to Database Systems. Pearson Education. 7. Decson, Eric. (2000). Managing with Information Technology. Great Britan, Kogan Page Ltd. 8. Dinesh, Madan (2015). Information Technology a Complete Reference. New Delhi: Jain Publishing. 9. Leon, Alexis & Leon, Mathews. (2006). Fundamentals of Database Management Systems. Vijan Nicole. 10. Petersen Richard. (2017). Linux: The Complete Reference, McGrawHill. 11. Shotts, Williams E. (2012). The Linux Command Line: A Complete Introduction. No starch Press. 12. Silberschatz, A. (2005). Operating System Concepts. Wiley. 13. Silberschatz. (2013). Database System Concepts Paperback. McGrawHill. 14. Sybex. (2007). Linux Complete. BPB Publications. 15. Ward, Brian (2014) How Linux Works –What Every Super User Should Know. No Starch Press. 16. Wilson, Kevin (2016). Essential Computing: Concepts of ICT. Elluminate Press.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	3	3	2
CO 2	3	2	3	2	3
CO 3	3	3	2	3	3

CO 4	2	2	3	3	2
CO 5	2	3	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO4, CO5

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO3, CO4
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO3, CO4

Course Code : LIS2016
Course Name : Basics of Information Technology - Practice

Credit Distribution			Total Credits	Internal Marks					Total Marks
L	T	P	L+T+P	C1	C2	C3	C4	C5	C1+...+C5
0	0	2	2	20	20	20	20	20	100

a. Course Outcome (CO)

After completion of the course, students will be able to work with the computer and application software.

	Course Outcome	Level
CO 1	Explain the use of Windows operating system.	Understand
CO 2	Explain the use of Linux operating system.	Understand
CO 3	Hands on Practice on the document editor.	Skill
CO 4	Hands on Practice on the spreadsheet.	Skill
CO 5	Hands on Practice on the presentation software.	Skill

b. Syllabus

Units	Content	Hrs.
I	Windows Operating System System Settings, File & Folder Creation, File Searching, File Naming, File Conversion etc.	12
II	Linux Operating System System Settings, File system, Command line operations on Linux- Basic Linux Commands etc.	12
III	Document Editor, Presentation software Page Saving, Insertion of Objects, Layout & Design of Page, Mail Merge, Table Designing, Formatting of Text; Making of Slides, Insertion of Slides, Design & Layout, Insertion of Objects, Transition, Animations & Slide Show.	12
IV	Spreadsheet Sheet Creation & Naming, Insertion of Objects & Formulas, Page Layout & Printing, Chart/Graph Creation.	12
V	Content creation and presentation Creating different types of Documents (Brochure, Poster etc.), Data Visualization Tools - selected Data Visualization Models.	12
	Tasks and Assignments: Each student is required to practice & create the following: Task 1: Basics of Windows users administration – adding a local user on Windows operating system. Task1: Linux Operating Systems – Create a text document using command line. Task 2: Demonstrate the mail merge with the help of MS-Word. Task 3: Making of PowerPoint slides with multimedia content. Task 4: Creation of Charts & Graphs for given content through Spreadsheet.	

	Task 5: Design a Brochure using a graphic designing tool. Task 6: Create a suitable visualization using given data.	
	References: 1. OccupyTheWeb. (2018). LINUX Basics for Hackers: Getting Started with Networking, Scripting, and Security in Kali. No Starch Press, US. ISBN: 978-1593278557. 2. Petersen, Richard (2008). Linux: The Complete Reference, 6th ed. Berkeley, Calif: Osborne McGraw-Hill. ISBN: 9780070222946. 3. Dhamdhere, D. M. (2009). Operating Systems: A Concept-based Approach. 3rd Ed. New Delhi: McGraw-Hill. ISBN: 9781259005589. 4. Chandra Mohan, I. (2013). Operating Systems. New Delhi: PHI Learning. ISBN: 9788120347267. 5. Bhatt, Pramod Chandra P. (2014). An Introduction to Operating Systems: Concepts and Practice. 4th Ed. New Delhi: PHI Learning. ISBN: 9788120348363. 6. Young, Margaret Levine. (2002). Internet: The Complete Reference. 2nd Ed. New Delhi: Tata McGraw Hill Education. ISBN: 9780070486997. 7. Wright, Heather. (2015). A Quick Guide to Writing Better Emails. Createspace Independent Publication. ISBN: 978-1517556525. 8. Kumar, Bittu. (2017). Mastering MS Office. Delhi: V&S Publishers. ISBN: 978-9350578780. 9. Weverka, Peter. (2023). Microsoft Office 2021: All-in-One for Dummies. Wiley India. ISBN: 978-9357460439.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	2	2	3
CO 2	3	3	2	2	3
CO 3	3	3	1	2	3
CO 4	3	3	2	2	3
CO 5	3	3	1	1	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal 1	10	10	10	10	10	50
Internal 2	10	10	10	10	10	50
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (100 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	9	9	9	9	9
Test	10	10	10	10	10
Attendance	1	1	1	1	1
Total	20	20	20	20	20

f. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

g. Rubric for Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2017
Course Name : Information Sources, Systems & Services

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to manage the information resources and services of the library & information centers.

	Course Outcome	Level
CO 1	Explain the basics of library sources	Understand
CO 2	Illustrate the different types of references sources.	Apply
CO 3	Examine the various aspects of library services.	Analyze
CO 4	Understand the functionality of various information systems and the services they offer.	Create
CO 5	Assess the outcome of the new information services.	Skill

b. Syllabus

Units	Content	Hrs.
I	Concept of Information Sources Information Sources – Definition, Characteristics, Importance; Types – Primary, Secondary, Tertiary; Human Sources of Information; Institutional Sources; Documentary and Non-Documentary Sources.	12
II	Reference Sources Encyclopedias, Dictionaries, Biographical Sources, Geographical Sources, Yearbooks, Almanacs, Directories, Handbooks and Manuals, Statistical Sources, Current Event Sources, Bibliographic Sources, Subject Gateways, Web Portals, Discussion Groups/Forums, Multimedia Resources, Institutional Repositories; Evaluation of Reference Sources.	12
III	Reference and Information Services Nature, Characteristics, Types of Reference Services; Virtual Reference Service; Indexing & Abstracting Service; Current Awareness Services (CAS); Selective Dissemination of Information (SDI); Document Delivery Service; Inter Library Loan; Translation Service; Bibliographic Service; Reprography Service.	12
IV	Information Systems Characteristics and Functions; International and National Information Systems – NIScPR, DESIDOC, NASSDOC, NISSAT, ENVIS, PIS, AGRIS, INIS, MEDLARS and ERIC.	12
V	Resource Sharing and Information Networks Resource Sharing and Networking – Objectives and Scope; Features and Characteristics of Library Networks and Consortia; INFLIBNET Centre, DELNET, OCLC, NICNET, ERNET, NKN.	12

	Tasks and Assignments: Each student is required to do the following: Task 1: Compare the Primary, Secondary and Tertiary Information Sources. Task 2: Prepare and submit assignment on the reference services of your library. Task 3: Understand and describe about a selected type of information institution focusing on their services to the society.	
	References: 1. Cheney (F N) and Williams (W J). (2000). Fundamental reference sources. Ed. 3. ALA, Chicago. 2. Chowdhury, G.G. (2006) Introduction to Modern Information Retrieval. 2nd Ed. London, Facet. 3. Girija Kumar & Krishnan Kumar: (1981) Bibliography, 2nd Rev. Ed., New Delhi, Vikas Pub. House. 4. Guha, B. (1982) Documentation and Information, 2nd Ed., Calcutta, World Press. 5. Gurdev Singh, (2013) Information Sources, Services and Systems, PHI Learning Private Limited, Delhi. 6. Katz, A. (1982). Introduction to Reference Work, Vol. I Basic Information Sources, New York, McGraw Hill. 7. Katz, A. (1982). Introduction to Reference Work, Vol. II Reference Services and Reference Processes. New York, McGraw Hill. 8. Keith R. McCloy. (1995). Resource Management Information Systems: process and practice. Bristol, Taylor & Francis. 9. Kenneth C. Laudon, Jane Price Laudon. (2002). Management information systems: managing the digital firm. Prentice-Hall. 10. Krishna Kumar: (1978) Reference service, 3rd Rev. Ed., New Delhi, Vikas Pub. 11. Kumar, P.S.G (2003). Information Analysis, Repackaging consolidation & Information retrieval (paper X and XI of UGC Model Curriculum). Delhi, B. R. Publishing. 12. Kumar, P.S.G. (2003). Information Sources and Services: theory and practice (Paper VI and VIII of UGC Model Curriculum). Delhi, B. R. Publishing. 13. Kumar, P.S.G. (2003). Library and Users: theory and Practice (Paper VIII of UGC Model Curriculum). Delhi, B. R. Publishing. 14. McNurlin. (2003). Information Systems Management in Practice. Pearson Education. 15. Milena Dobрева, Andy O'Dwyer, Pierluigi Feliciati. (2012). User Studies for Digital Library Development. Publisher Facet. 16. Ranganathan S R. (1989). Reference service. Ed 2. 1989. Ranganathan Endowment for Library Science, Bangalore. 17. Richard E. Bopp and Linda C. Smith, (2011). Reference and Information Services: An Introduction, 4th Edition: An Introduction, Fourth Edition, Libraries Unlimited. 18. Rowley, J. E. (1996). The Basics of Information Systems. Facet Publishing.	

	19. Sehgal, R.L. (1989). User Education in Computer Based Libraries. Delhi, Ess Ess Publications.	
	20. Sharma, Jagdish Saran and Grover, D.R. (1997). Reference service and Sources of Information. Delhi, Ess Ess Publications.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

SECOND SEMESTER

SN	Course Code	Course Name	Credit Pattern				Hours /Week	Marks System		
			L	T	P	Total		CIA	Sem.	Total
SECOND SEMESTER										
8	LIS2021	Knowledge Organisation – Cataloguing Theory	3	0	0	3	3	40	60	100
9	LIS2022	Knowledge Organisation – Cataloguing Practice	0	0	3	3	6	100	---	100
10	LIS2023	Marketing of Information Products & Services	3	0	0	3	3	40	60	100
11	LIS2024	ICT Application in Libraries - Theory	3	0	0	3	3	40	60	100
12	LIS2025	ICT Application in Libraries - Practice	0	0	3	3	6	100	---	100
13	LIS2026	Internship	0	0	2	2	--	100	---	100
14	LISOE01	Digital Literacy	3	0	0	3	3	40	60	100
15	LISVA01*	Libraries and Sustainable Development Goals	2	0	0	0	2	--	---	--
16	LISEC01	Preservation & Conservation of Library Materials	3	0	0	3	3	40	60	100
	####	MOOCs								
Total			15	0	8	23	29	500	300	800

Course Code : LIS2021
Course Name : Knowledge Organisation – Cataloguing Theory

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Explain the role of cataloguing in libraries	Understand
CO 2	Illustrate the different types of cataloging	Apply
CO 3	Examine the information retrieval standards	Analyze
CO 4	Formulate the solutions for the dissemination of information	Create
CO 5	Assess proficiency with the help of a cataloguing tool.	Skill

b. Syllabus

Units	Content	Hrs.
I	Basics of Cataloguing Definition, Importance, Objectives, Functions of Catalogue; Physical Forms of Cataloguing; Types of Library Catalogue; Kinds of Entries; Historical Development of Cataloguing Codes; CCC and AACR.	9
II	Cataloguing Principles Normative Principles; Canons of Cataloguing; Filing of Catalogue Entries & Alphabetization; Cooperative and Centralized Cataloguing; Union Catalogue.	9
III	Subject Headings Meaning, Purpose and Objectives of Subject Cataloguing; Subject Headings: Sears' List of Subject Heading, LCSH, MeSH, SHE; Chain Procedure; Application of AI in Generating Subject Headings.	9
IV	Standards of Bibliographic Description ISBD; FRBR; FRAD (Functional Requirements for Authorized Description); GARR (Guidelines for Authority Records and References); RDA (Resource Description and Access); Bibliographic Record Formats: ISO 2709, MARC, UNIMARC, CCF.	9
V	Metadata Definition/Concept, Types of Metadata; Metadata Standards: Dublin Core, Encoded Archival Description (EAD), TEI; Recent Trends and Developments – Schema.org, BIBFRAME, and Transformation of MARC formats; Automatic Metadata Generation using AI.	9
	Tasks and Assignments: Each student is required to do the following: To understand the principles and history of library cataloguing, including the development of different cataloguing rules, standards and systems.	

	and usage of list of subject headings, a student shall submit a detailed report.	
	References: 1. American Library Association. (1978). Anglo-American cataloguing rules. 2nd Ed. 2002 revision, 2005 update. 2. Girija Kumar & Krishna Kumar. (2004). Theory of Cataloguing. New Delhi: Vikas 3. Gredley, Ellen & Hopkinson, Alan (1990). Exchanging Bibliographic Data: marc and other International Formats. ALA. 4. Hagler, Ronald & Simmons, Peter. (1991). The Bibliographic Record and Information. ALA. 5. Haynes, David. (2017). Metadata for Information Management and Retrieval, Understanding metadata and its use. Facet. 6. Khan, M. T. M. (2005). Anglo-American cataloguing rules. Shree Publishers. 7. Krishan Kumar. (1986). An Introduction to Cataloguing Practice. 3rd Rev. Ed. New Vikas Publishing. 8. Mitchell, Anne M. & Surratt, Brian E. (2005). Cataloguing and Organizing Digital Sources. Facet Publishing. 9. Mitchell, Anne M. & Surratt, Brian E. (2005). Cataloguing and Organizing Digital Sources. Facet. 10. Ranganathan, S. R. (1988). Classified Catalogue Code with additional rules for dictionary catalogue. Sarada Ranganathan Endowment for Library Science. 11. Taylor, A. G. (2007). Introduction to Cataloguing and Classification. 10th Ed. Atlantic. 12. Welsh, Anne & Batley, Sue. (2012). Practical Cataloguing AACR, RDA and MARC21. Facet Publishing. 13. C. G. Viswanathan. (2007). Cataloguing: Theory & Practice, Ed 6th, Ess Ess Publication.	

c. Mapping of Program Outcomes with Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	CO2	CO3	CO4	CO5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to Cos
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

Course Code : LIS2022
Course Name : Knowledge Organisation – Cataloguing Practice

Credit Distribution			Total Credits	Internal Marks					Total Marks
L	T	P	L+T+P	C1	C2	C3	C4	C5	C1+...+C5
0	0	3	3	20	20	20	20	20	100

a. Course Outcome (CO)

After completion of the course, students will be able to prepare card catalogues based on AACR II for the library & information centers:

	Course Outcome	Level
CO 1	Explain the role of cataloguing.	Understand
CO 2	Illustrate the different types of cataloging.	Apply
CO 3	Examine the information retrieval techniques.	Analyze
CO 4	Formulate the solutions for the dissemination of information	Create
CO 5	Assesses intelligence with the help of a cataloguing tool	Skill

b. Syllabus

Units	Content	Hrs.
I	Introduction to AACR 2R.	18
II	Single Personal Author, Two and Three Personal Authors, Uniform Titles, Choice and Rendering of Subject Headings (Sears' List).	18
III	More than Three Authors' Works, Multivolume and Series Books, Pseudonyms, Anonymous Authors; Sacred Books.	18
IV	Corporate Bodies – Government, Conference, Seminar, Symposium, Institutions, Associations, Societies, Periodical Publications; Cataloguing of Non-Book Materials: Cartographic Materials, Music, Sound Recordings and Electronic Resources.	18
V	Cataloguing using MARC-21, BIBFRAME & Linked Data, Authority Files, Cataloguing with AI Tools.	18
	Tasks and Assignments: Each student is required to do the following: Task 1: To study features of AACR-II R. Task 2: Focus on identifying subject headings Task 3: Hands on training on rendering heading, preparing ME and AE cards for various types of titles. Task 4: To prepare catalogue cards for corporate bodies. Task 5: Illustrate the cataloguing of Non-Book Materials.	
	References: 1. Anglo American Cataloguing Rules (AACR2R). 2 nd ed. 2005 revision. Chicago: ALA & CILIP, 2005. 2. Bristow, Barbara A, ed. (2014). Sears List of Subject Headings. 21 st ed. Massachusetts: H. W. Wilson.	

	3. Fritz, Deborah A. (2012). Cataloguing with AACR 2 & MARC 21. 2 nd ed. Chicago: ALA. 4. Joudrey, Daniel N et al. (2015). Introduction to Cataloguing and Classification, 11 th ed. California: Libraries Unlimited. 5. Taylor, Arlene G. (2006). Introduction to Cataloguing and Classification, 10 th ed. London: Libraries Unlimited.	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal 1	10	10	10	10	10	50
Internal 2	10	10	10	10	10	10
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (100 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Test	19	19	19	19	19
Attendance	1	1	1	1	1
Total	20	20	20	20	20

f. Rubric for Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2023
Course Name : Marketing of Information Products and Services

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

After completion of the course, students will have knowledge on marketing of information products and services effectively.

	Course Outcome	Level
CO 1	Explain the basic marketing concepts and techniques related to Library and Information Science.	Understand
CO 2	Illustrate the applications of Marketing of Information Products techniques in the Library and Information Science.	Apply
CO 3	Examine the various aspects of Information Products and Services related to LIS.	Analyze
CO 4	Formulate the practical aspects of Marketing of Information Products and Services	Create
CO 5	Assesses the outcome of the new marketing plan & research techniques in information industry.	Skill

b. Syllabus

Units	Content	Hrs.
I	Fundamentals of Marketing Needs, Objectives and Philosophy; Marketing Environment: Producer, Consumer – Buyer Behaviour; Marketing Information System; Market Segmentation; Marketing Mix; Marketing Strategies.	9
II	Marketing Strategies & Techniques Strategic Planning; Marketing Research; Marketing Process; Pricing Models; Brand Management and Advertising; Digital Marketing.	9
III	Management Consultancy Evolution, Need and Objectives; Voluntary vs Authenticated Consultancy; Impact of Management Consultancy on Librarianship; Role of Library Associations and LIS Schools.	9
IV	Promotion of Information Products and Services Information Products and Services as a Marketable Commodity; Pricing; Distribution Channels and Communication Strategies; Advertising; Sales Promotion; Public Relations; Digital Marketing of Information Products and Services.	9
V	Information Analysis, Consolidation and Re-Packaging Information Analysis and Consolidation: Concept, Need and Purpose; Information Analysis Centres; Packaging and Re-Packaging: Concept, Need, Purpose and Criteria; Information Consolidation Products: Concept, Types, Design and Development; Categories of Information	9

	Consolidation Products – Reviews, State-of-the-art Reports, Handbooks, Trend Reports, Technical Reports; Processes in Information Consolidation.	
	Tasks and Assignments: Each student is required to do the following: Assignment 1: Prepare a case study of marketing of information products and services with a special library. Assignment 2: Submit an assignment on a marketing plan of an academic library and industrial library.	
	References: 1. Anderson, A.R. Advancing library marketing. <i>Journal of Library Administration</i>. 1(3), 1980, pp. 17 32. 2. Bellardo, T. and Waldhart, T J. Marketing products and services in academic libraries, <i>Libri</i>. 27(3), 1977. pp. 181 194 3. Berry J. The test of the marketplace. <i>Library Journal</i>. 104. Sept. 1979. pp. 1605. 4. Anderson, W. T. Jr., Bentley, C. C. and Sharpe, L K IV. Multi-dimensional marketing: Managerial, societal, and philosophical. Austin TX: Austin Press 1976. 5. Dragon, A C. Marketing the library. <i>Wilson library bulletin</i>. 53, 1979, pp. 498 500. 6. Eisner, J, ed. Beyond PR: Marketing for libraries. A Library Journal Special Report, 1981. 7. Bakewell, K. G. Managing user-centred libraries and information services. Ed. 2. 1997. Maxwell, London. 8. Butcher, Helen. Meeting manager's information needs. 1998. ASLIB, London. 9. Carpenter, J. & Davies, R. Quantification of the overseas consulting market for professional consultancy services in librarianship and information science and information management. 1992. Research and Development, British Library, London. 10. Coote, Helen & Batchelor, Bridget. How to market your library services effectively. Ed. 2. 1997. Aslib, London. 11. Gupta, D K, et al. Marketing library and information services: international perspectives. 2006. K.G. Saur, Munich. 12. Helsinki, Z. A short-cut to marketing the library. 2008. Chandos Publishing, Oxford. 13. Jain, Abhinandan K, et al. Marketing information products and services: a primer for libraries and information professionals. 1999. Tata McGraw-Hill, New Delhi. 14. Kotler, Philip. Marketing management. Ed.12. 2002. Prentice Hall, Delhi. 15. Kotler, Philip & Armstrong, Gary. Principle of marketing. Ed. 7. 1996. Prentice- Hall of India, New Delhi. 16. Rowley, Jenifer. Information marketing. 2001. Ashgate, London	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO1	CO2	CO3	CO4	CO5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5

2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3
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h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO4, CO5,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO4, CO5

Course Code : LIS2024
Course Name : ICT Application in Libraries - Theory

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to understand the basics of library automation and security technologies effectively.

	Course Outcome	Level
CO 1	Understand the basic of library automation.	Understand
CO 2	Explain the features of library automation software	Apply
CO 3	Illustrate the types of network and network topologies.	Analyze
CO 4	Learn the practical aspects of library security technologies	Create
CO 5	Assess the outcome of the AI technologies in the LICs.	Skill

b. Syllabus

Units	Content	Hrs.
I	Automation of Libraries Automation: Meaning and Definitions; Historical Developments in Library Automation; Planning of Library Automation; Integrated Library Management System (ILMS); Components of Automated Library System: Acquisition, Cataloguing, Circulation, Serials Control Systems and OPAC; Retrospective Conversion.	9
II	Library Software Packages Library Automation Standards; Library Automation Software: Functional Requirements; Types of Library Software: In-house Software, Proprietary Software and Open Source Software; Trends and Future of Library Automation Software.	9
III	Networking Technology Networking: Topology and Types of Networks; Standards & Protocols; Network Models (OSI); Interoperability & Protocols – Z39.50, OAI-PMH, OpenSearch; Persistent Identifiers; Application Programming Interface.	9
IV	Library Security Technology Library Security Systems: Concept & Importance; Types of Security Threats (Theft, Vandalism, Data Breaches, Cyber Threats); Role of ICT for Secured Library Environment; Surveillance and Monitoring Systems: CCTV; Identification and Access Control Technologies: RFID, Biometrics, Smartcard Technology; Data Encoding and Tracking Technologies: Barcode & QR Code; Emerging Trends in Library Security.	9

V	Automated Services & Artificial Intelligence Introduction to Automated Library Services; Electronic Reference Services; CAS & SDI in Automated Environment; Electronic Document Delivery Service; Expert System; Natural Language Processing; Artificial Intelligence in Libraries.	9
	Tasks and Assignments: Each student is required to submit the following: Assignment 1: Discuss library automation and ILMS. Assignment 2: Prepare a report on the features of various library automation software packages. Assignment 3: Make a presentation on the network topologies. Assignment 4: A study report on library security technologies applied in academic libraries. Assignment 5: Enumerate the features AI and its application in libraries.	
	References: 1. Chakravarthy, R. C. & Murthy, P. R. S. (2011). Information Technology and Library science. New Delhi: Pacific Publications. 2. Chidrupananda, Swami. (2006). Making Sense of Library Automation: A Hands-on Guide. Kolkata: Meteor. 3. Curtin, Dennis et. al. (1999). Information Technology: The breaking Wave. New Delhi: McGraw Hill Education. 4. Forney, Mathew. (2003). Digital Reference Services. New Delhi: Dominant Publishing. 5. Gopal, Krishan. (2005). Modern Library Automation. New Delhi: Authors Press. 6. Grewal, Gagandeep. (2004). Handbook of Library Security. New Delhi: Dominant. 7. Kulkarni Parag. & Joshi Prachi. (2015). Artificial Intelligence: Building an Intelligent System. New Delhi: PHI. 8. Pandey, S K. (2000). Organisation of Library Automation. New Delhi: Anmol Publications. 9. Reddy, Satyanarayana. (2001). Automated Management of Library Collections. New Delhi: Ess Ess Publishing. 10. Stallings, William (2000). Data and computer communications. New Delhi: Prentice Hall of India. 11. Tripathi, Aditya et al. (eds.). (2010). Open Source Library Solutions. New Delhi: Ess Ess Publishing. 12. Vishwanathan, Thiagarajan. (2005). Telecommunications switching system and networks. New Delhi: Prentice Hall of India.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO5

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2025
Course Name : ICT Application in Libraries - Practice

Credit Distribution			Total Credits	Internal Marks					Total Marks
L	T	P	L+T+P	C1	C2	C3	C4	C5	C1+...+C5
0	0	3	3	20	20	20	20	20	100

a. Course Outcome (CO)

After completion of this course, students will be able to design and implement automation of library functions using Integrated Library Management System (ILMS).

	Course Outcome	Level
CO 1	Identify the basic requirements of ILMS installation procedure.	Understand
CO 2	Carryout the installation and configuration of the ILMS.	Apply
CO 3	Examine the functionality of ILMS.	Analyse
CO 4	Construct a functional library automation platform using ILMS.	Create
CO 5	Plan and deploy automation of library operations using ILMS.	Skill

b. Syllabus

Units	Content	Hrs.
I	Integrated Library Management Software Koha – Installation and Customization of User Interfaces - Staff Interface, OPAC.	18
II	Managing a Library System Koha: Creating Library, Branch Libraries, Managing Library Groups, Designing Rules for Services.	18
III	Library Administration – Koha Modules and Settings Customizing Koha Modules: Global Settings; Acquisition: Setting up the Acquisitions Module, Vendors, Managing Purchase Suggestions, Managing Orders, Budget/Fund Tracking; Cataloguing: Bibliographic Records, Item Records, Authorities, MARC21 framework; Serials Management: Managing Serial Numbering Patterns, Adding a Subscription, Serial Collection.	18
IV	Managing Patron Services and Circulation Adding Patrons, Patron Information, Patron Categories, Rules, Permissions, Check-out, Renewing, Check-in, Circulation Messages, Circulating Bundles, Circulation Reports, Customizing the OPAC – Search Results, Bibliographic Record, Lists and the Cart, Purchase Suggestions.	18
V	Report Generation & Export/Import of Metadata Custom Reports, Statistics Reports, Report Dictionary, Export and Import of Metadata.	18
	Tasks and Assignments: Each student is required to submit the following:	

	Task 1: Customize the OPAC user interface with your library's logo, text and other appropriate look and feel changes. Task 2: Demonstrate the book purchasing process by creating a fund/budget, vendors and order. Task 3: Showcase how to frame circulation rules for various categories of patrons. Task 4: Generate custom reports using the transaction data.	
	References: 1. Koha Manual. https://koha-community.org/manual/22.11/en/html/ 2. Mishra, Vinod Kumar. (2016). Basics of Library Automation, Koha Library Management Software and Data Migration: Challenges with Case Studies. Ess Ess Publications.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	3	2	1
CO 2	3	3	3	2	1
CO 3	3	2	2	3	3
CO 4	3	3	3	3	2
CO 5	3	3	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal 1	10	10	10	10	10	50
Internal 2	10	10	10	10	10	50
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (100 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments/Tasks	9	9	9	9	9
Test	10	10	10	10	10
Attendance	1	1	1	1	1
Total	20	20	20	20	20

f. Rubric for Assignments/Tasks

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5

2	Organiza-tion 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5
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g. Rubric for Test

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organiza-tion 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2026
Course Name : Internship

Credit Distribution			Total Credits	Internal Marks					Total Marks
L	T	P	L+T+P	C1	C2	C3	C4	C5	C1+...+C5
0	0	2	2	20	20	20	20	20	100

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Understand the functions of library and information centers	Understand
CO 2	Understand the users need in library.	Understand
CO 3	Hands on Practice on the functioning of the library sections.	Skill
CO 4	Hands on Practice on the functioning of ILMS.	Skill
CO 5	Hands on Practice on the stack maintenance and serial publications of the library	Skill

b. Syllabus

Content
To place students in an established Library & Information Centre approved / recommended by the Department to enable them to be exposed to the various sections/ divisions to gain practical knowledge and to give them working experience.
Period: Period of Internship shall be for one month (30 days).
Evaluation: The Internship report shall be evaluated by the Department faculty and marks shall be sent to the Controller of Examinations.
Tasks and Assignments: Candidates are required to prepare unit/section wise detailed report of working in the University Library or any other library specified by the Department. A detailed report shall be submitted by each student along with a Certificate from the Head of the Library concerned for the completion of Internship.

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	3	3	3
CO 2	3	1	3	3	3
CO 3	3	2	3	3	3
CO 4	3	3	3	3	3
CO 5	3	2	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal 1	10	10	10	10	10	50
Internal 2	10	10	10	10	10	50
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (100 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments/Tasks	15	15	15	15	15
Test/Viva-Voce	4	4	4	4	4
Attendance	1	1	1	1	1
Total	20	20	20	20	20

f. Rubric for Assignments/Tasks

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

g. Rubric for Tests/Viva-Voce

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LISOE01
Course Name : Digital Literacy

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Explain the concept of Information literacy and media literacy.	Understand
CO 2	Identify the emerging trends and technologies in digital technology.	Apply
CO 3	Apply digital tools for information security.	Analyze
CO 4	Analyze the of Generative AI systems in professional environment.	Create
CO 5	To understand the techniques digital information security.	Skill

b. Syllabus

Units	Content	Hrs.
I	Information Literacy and Media Literacy Information Discovery and Search Strategies; Evaluation of Information Sources; Misinformation and disinformation; Copyright; Academic Integrity; Basics of Citation, Referencing and Bibliography; Ethical use of data and information.	9
II	Introduction to Digital literacy Digital Literacy – Concept & Definitions; Digital Competence Frameworks; Digital Literacy in Knowledge Society; Digital Transformation in Education, Research and Society; Digital Communication and Collaboration; Digital Identity and Digital Presence; Digital Skills for Lifelong Learning and Employability.	9
III	Data Literacy and Digital Productivity Data Literacy – Concepts, Data Collection, Organisation, and Management; Data Visualization; Digital Content Creation and Presentation; Digital Productivity Tools and Applications; Digital Workflow Management and Collaboration; Digital Documentation; Open Data.	9
IV	Digital Information Security Fundamentals of Cyberthreats; Principles of Information Security: Confidentiality, Integrity, and Privacy; Data Protection and Digital Rights; Digital Footprint and Online Identity; Practices in Safeguarding Sensitive Data; Responsible Digital Behaviour; Backup Strategies and Disaster Recovery.	9
V	Emerging Trends and Technologies Generative AI Systems; Applications of Generative AI Systems in Education, Research, and Professional Environments; AI Agents and Workflow Automations; Data Governance, Privacy, and Ethical	9

	Considerations in Generative AI Systems, Responsible Use of Technology.	
	Tasks and Assignments: Each student is required to do the following: Task 1: Write and submit a detailed note on Digital literacy. Task 2: Submit the evaluation of five information sources. Task 3: Enumerate the features of responsible digital behaviour. Task 4: List out the emerging trends and technologies in the Digital literacy. Assignment 1: List out methods ethical use of information Assignment 2: Write and submit a detailed note on generative AI systems and its applications.	
	References: 1. Martínez-Bravo, M., Chalezquer, C., & Serrano-Puche, J. (2022). Dimensions of Digital Literacy in the 21st Century Competency Frameworks. Sustainability. https://doi.org/10.3390/su14031867 . 2. Luís, S., Portugal, E., Farias, A., Soro, J., Cabral, J., Da Costa, L., Ferreira, M., Loureiro, A., Silva, V., Chambel, J., Fialho, A., Domingos, S., Possidónio, C., & Moura, R. (2025). Predicting Digital Literacy: A Systematic Review of Digital Competence, Usage, and Transformation. Human Behavior and Emerging Technologies. https://doi.org/10.1155/hbe2/6046935 . 3. Cairo, A. (2016). The truthful art: Data, charts, and maps for communication. New Riders. 4. Rheingold, H. (2012). Net smart: How to thrive online. MIT Press. 5. Bawden, D., & Robinson, L. (2022). Introduction to information science (2nd ed.). Facet Publishing. 6. Mollick, E. (2024). Co-intelligence: Living and working with AI. Portfolio. 7. Pfleeger, C. P., & Pfleeger, S. L. (2015). Security in computing (5th ed.). Pearson. 8. Eisenberg, M. B., & Berkowitz, R. E. (2018). Information problem-solving: The Big6 skills approach. Libraries Unlimited. 9. Jayakumar, S., Ang, B., & Anwar, N. D. (Eds.). (2020). Disinformation and fake news. Springer. 10. Charalabidis, Y., Zuiderwijk-van Eijk, A., Alexopoulos, C., Janssen, M., Lampoltshammer, T., & Ferro, E. (2018). The world of open data: Concepts, methods, tools and experiences. Springer. https://doi.org/10.1007/978-3-319-90850-2	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	1	2	1	1	3
CO 2	2	3	1	1	3
CO 3	2	3	2	2	3
CO 4	3	3	1	2	3
CO 5	3	3	2	2	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments & Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LISVA01
Course Name : Libraries and Sustainable Development Goals

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
2	0	0	2	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to demonstrate practical understanding of SDGs in LIS

	Course Outcome	Level
CO 1	Understand the concept and framework of the SDGs	Remember
CO 2	Examine the role of libraries in achieving SDGs	Understand
CO 3	Demonstrate practical understanding of SDGs in LIS	Apply
CO 4	Develop innovative, community-based information solutions	Analyze
CO 5	Contribute to policy and advocacy for sustainable development	Skill

b. Syllabus

Units	Content	Hrs.
I	Introduction to Sustainable Development Sustainable Development; Overview of the 17 SDGs; Global vs. Indian Perspectives; Information as a Tool for Development; Information Access and Equity; Knowledge Societies and Development; Role of Information in Decision Making.	6
II	Libraries as Enablers of Health, Education, and Equity SDG3 – Good Health and Well-being: Health Information Services, Combating Misinformation, Role of Libraries in Public Health Awareness; SDG4 – Quality Education: Libraries in Literacy and Lifelong Learning, Open Educational Resources (OER), Academic and Public Library Interventions; SDG5 – Gender Equality: Gender and Information Access, Empowering Women through Library Services, Addressing Digital Gender Divide.	6
III	Libraries Supporting Social, Economic Sustainability SDG8 & SDG9 – Economic Growth and Innovation: Libraries and Entrepreneurship, Digital Literacy and Employability, Innovation Hubs and Makerspaces; SDG10 – Reduced Inequalities: Inclusive Library Services, Serving Marginalized and Vulnerable Groups, Disability-friendly Information Systems; SDG13 – Climate Action: Environmental Information Services, Green Libraries, Indigenous Knowledge and Sustainability.	6
IV	ICTs, Digital Inclusion and Smart Libraries Role of ICT in Sustainable Development; Bridging the Digital Divide; Smart and Virtual Library Systems; Policy, Ethics, and Legal Issues; Information Policy and Governance; Intellectual Property and Access; Ethical Considerations in Development Contexts.	6
V	Advocacy, Partnerships, and Community Engagement	6

	Library Advocacy for SDGs, Stakeholder Collaboration, Role of NGOs, Government and its Agencies.	
	Tasks and Assignments: Each student is required to do the following: Assignment 1: Mapping a local library service to specific SDGs Assignment 2: Designing a community outreach program Assignment 3: Case study analysis of SDG interventions in libraries	
	References: 1. Arora, R., & Sarker, T. (Eds.). (2025). Financing of sustainable development goals (SDGs). Springer. 2. Brady, D., & Burton, L. M. (Eds.). (2016). The Oxford handbook of the social science of poverty. Oxford University Press. 3. Dodds, F., Donoghue, D., & Roesch, J. L. (2017). Negotiating the sustainable development goals: A transformational agenda for an insecure world. Routledge. 4. Labadi, S., & Logan, W. (Eds.). (2015). Urban heritage, development and sustainability. Routledge. 5. Mauerhofer, V. (Ed.). (2016). Legal aspects of sustainable development. Springer. 6. Murphy, D. F., & Stott, L. (2021). Partnerships for the Sustainable Development Goals (SDGs). Sustainability, 13(2), 658. https://doi.org/10.3390/su13020658 7. Organisation for Economic Co-operation and Development (OECD). (2020). Managing environmental and energy transitions for regions and cities. 8. Sachs, J. D. (2015). The age of sustainable development. Columbia University Press. 9. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. 10. United Nations. (2022). Report of the United Nations Conference on Sustainable Development Goal 14. 11. Ward, A., & Steckler, E. L. (Eds.). (2022). Sustainable development goals (SDGs). World Scientific.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	3	1	3
CO 2	3	3	3	2	3
CO 3	2	3	3	3	3
CO 4	3	3	1	3	2
CO 5	3	3	1	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2

h. Rubric for Test

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4, CO5

Course Code : LISEC01
Course Name : Preservation and Conservation of Library Materials

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to.

	Course Outcome	Level
CO 1	Understand the objectives of preservation and conservation of library materials.	Understand
CO 2	Identify the strategy, tool and techniques for the conservation, preservation and archiving of the various library materials	Apply
CO 3	Better understanding of national and international organisation and their role in conservation, preservation and archiving.	Understand
CO 4	Formulate the process of digitization of manuscripts	Analyze
CO 5	Plan and act on the steps required for conservation and preservation of various library materials.	Skill

b. Syllabus

Units	Content	Hrs.
I	Preservation and Conservation Concept, Need, Historical Development; Preservation Measures; Conservation/Restoration; Policy and Planning on Preservation and Conservation.	9
II	Hazards of Library Materials Physical Hazards; Environmental Hazards; Chemical Hazards; Biological Hazards.	9
III	Restoration of Documents Cleaning, Removal of Stains, Fumigation, De-acidification, Lamination, Encapsulation of Documents; Bindings of Documents: Purpose, Kinds of Bindings, Publishers Casing, Paperbacks, Reinforced Binding; Binding Materials: Covering Materials, Sewing and Pasting Materials, Ornamentation Materials; Binding Process; Standards for Library Binding.	9
IV	Manuscript Preservation Types of Manuscripts; Writing Materials of Manuscripts; Deterioration of Manuscripts; Conservation & Preservation of Manuscripts & Rare Materials; Environmental Control; National Initiatives for Manuscripts Preservation (Gyan Bharatam Mission).	9
V	Digitization Concept, Definition, Purpose of Digitization; OCR; Digital Preservation: Planning & Steps; Digitization of Microfilms, Floppies & Disks; National Digital Preservation Program (NDPP); National and International Initiatives; Recent Trends in Digitization.	9

	Tasks and Assignments: Each student is required to do the following: Assignment 1: Write and submit a detailed note on restoration of manuscripts. Assignment 2: List out the methods of digital preservation and its steps.	
	References: 1. Casey, J. P. (1982). Paper making. New York: Interscience Publishers. 2. Corduroy, John. (1978). Book binding for beginners. London: Thomas and Hudson 3. Dasgupta, Kalpana, ed. (1988). Conservation of library materials. Calcutta: National Library 4. Durean, J. M. & Clements, D. W. G. (1986). Principles of the preservation of library materials. Hague: IFLA 5. Gabriel, M. & Ladd, D. (1980). The microfilm revolution in libraries. Greenwich: JAI Press 6. Harvey, Poss. (1993). Preservation in libraries: a reader. London: R R Bowker 7. Hans, K. J. (1958). Sign, symbol and script. London: George Allen & Unwin 8. Sharma, R. G. (1979). Pandulipisampadankala. Delhi: Prabhat Prakashan 9. Singh, R. S. (1993). Conservation of documents in libraries, archives and museums. Delhi	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	1	1	2	3
CO 2	3	2	1	2	2
CO 3	3	1	1	1	1
CO 4	2	3	2	2	3
CO 5	1	2	2	2	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay- 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

h. Rubric for Test

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

THIRD SEMESTER

SN	Course Code	Course Name	Credit Pattern				Hours /Week	Marks System		
			L	T	P	Total		CIA	Sem.	Total
THIRD SEMESTER										
17	LIS2031	Research Methodology	4	0	0	4	4	40	60	100
18	LIS2032	Information Processing and Retrieval	4	0	0	4	4	40	60	100
19	LIS2033	Web Technology	4	0	0	4	4	40	60	100
20	LIS2034	Ontology and Semantic Web	4	0	0	4	4	40	60	100
21	LIS2035	Digital Library & Content Management - Practice	0	0	2	2	4	100	---	100
22	LISEC02	Academic Library System	4	0	0	4	4	40	60	100
	LISEC03	Public Library System								
	####	MOOCs								
23	LISSE01	Personality Development & Communication Skills	2	0	0	2	2	40	60	100
Total			22	0	2	24	26	340	360	700

Course Code : LIS2031
Course Name : Research Methodology

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Explain the concept of research in LIS	Understand
CO 2	Illustrate the identification of research problems & design	Apply
CO 3	Examine the research method and techniques	Analyze
CO 4	Formulate the solutions for their research problems	Create
CO 5	Assesses intelligence with the help of a research tool	Skill

b. Syllabus

Units	Content	Hrs.
I	Research: Meaning and Types Concept, Meaning and Process of Research; Fundamentals of Research, Objectives of Research; Motivation of Research; Types of Research: Pure/Fundamental, Applied, Action, Qualitative and Quantitative, Other Forms of Research; Research Ethics.	12
II	Research Design, Formulation of Research Research Design: Meaning/Definitions, Characteristics, Types, Contents of Research; Identification and Formulation of Research Problem; Hypotheses: Definition, Need, Types, Formulation, and Testing of Hypotheses; Designing Research Proposal; Literature Review: Concept, Purpose, Sources for Review.	12
III	Research Methods Scientific Method; Historical Method; Descriptive Method; Survey and Case Study Method; Experimental Method; Delphi Technique; Repertory Grid Technique.	12
IV	Data Collection, Analysis and Interpretation Collection of Data by Questionnaire, Interview, Observation and Sampling; Presentation of Data-Tables, Charts and Graphs; Interpretation of Data: Frequency Distribution, Measures of Central Tendency, Analysis of Time Series, Co-relation Studies and Analysis of Variance; Regression Analysis; Use of Statistical Packages; Use of AI Tools for Analysis.	12
V	Research Report Writing and Presentation Structure, Style, Contents; Guidelines for Research Reporting; Style Manuals; Reference Management Software; Methods of Research Evaluation; Current Trends in Library and Information Science Research.	12

	Tasks and Assignments: Each student is required to do the following: Assignment 1: Observe research problems in the field of Library and Information Science. Assignment 2: Prepare a case study on Libraries' disadvantaged groups.	
	References: 1. Busha, Charles H. and Houter, S.P: Research Methods in Librarianship. New York, Academic Press, 1980. 2. Devarajan, G. Research in Library and Information Science. Delhi, Ess Ess Pub., 2002 3. Kothari, C.R. (1985). Research Methodology: Methods and Techniques. New Delhi: Wiley Eastern. 4. Kothari, C. R. & Garg, Gaurav. (2014). Research Methodology: Methods and Techniques (3rd Edition.). Landon: New Age International (P) Limited Publishers. 5. Mangal, S. K. & Mangal, Shubhra. (2023). Research Methodology in Behavioural Sciences. Delhi: PHI Learning. 6. Ahuja, Ram. (2001). Research Methods. New Delhi: Rawat Publications. 7. Krishan Kumar: Research Methods in LIS, New Delhi, Har-Anand, 1992. 8. Line, M.B.: Library Surveys, 2nd Ed., London, Clive Bingley, 1982. 9. Ravichandra Rao, I.K. Quantitative methods for Library and Information Science: New Age International, 2009 10. Ravichandra Rao, I.K.: Quantitative Methods for Library and information Science, New Delhi, Wiley Eastern, 1983. 11. Sehgal, R.L. Statistical Techniques for Librarians. New Delhi, Ess Ess Pub., 1998 12. Sharma, Pandey S. K. Universe of Knowledge and Research Methodology. Delhi, Ken Pub., 1990. 13. Simpson, I.S.: Basic Statistics for librarians, 2nd ed., London, Clive Bingley, 1983. 14. Vaughan, Lawmen. Statistical Technology for the Information Professional: A Practical Painless Approach to Understanding, Using and Interpreting Statistics. ISBN:978-81-7000-552-0	

c. Mapping of Program Outcomes with Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

Course Code : LIS2032
Course Name : Information Processing and Retrieval

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

On completion of this course, students are expected to learn the functions of Information Retrieval Systems, their performance evaluation, different IR models and Indexing Systems.

	Course Outcome	Level
CO 1	Explaining the basic concepts of information retrieval systems	Understand
CO 2	Explain use of vocabulary control tools	Understand
CO 3	Applying indexing techniques in platforms such as digital libraries	Apply
CO 4	Analyze various information retrieval models	Analyze
CO 5	Use different search techniques for effective information retrieval	Skill

b. Syllabus

Units	Content	Hrs.
I	Basics of Information Retrieval Overview of IR Systems; Historical Perspectives; Measures of Performance and Evaluation.	12
II	Subject Representation and Vocabulary Control Subject Analysis; Controlled Vocabulary in Indexing; Vocabulary Control Tools – Thesaurus, Subject Headings.	12
III	Indexing Systems and Techniques Theory of Indexing; Manual Indexing; Assigned Indexing; Derived Indexing; Pre-and Post-Coordinate Indexing; Citation Indexing.	12
IV	Information Processing in Retrieval Systems Text Operations: Document Pre-processing (Word Stemming, Stop Words), Document Clustering; Inverted Index, Boolean, Vector and Probabilistic Models; Structured Text Retrieval Models.	12
V	Information Search Search Strategy; Search Process; Search Facilities; Z39.50; Web Information Retrieval – Characteristics; Search Engine Optimization; Metadata; Recent Trends in IR; User Interfaces.	12
	Tasks and Assignments: Each student is required to do the following: Task 1: Comparison of selected Search platforms. Task 2: Submit an assignment on measures of performance evaluation of IRS. Task 3: Perform web search using different search techniques in different search platforms and compare the results.	

	References: 1. Aitchison, Jean; Gilchrist, Alan; and Bawdown, David. (1990). Thesaurus Construction and Use: Practical manual. 4th Ed. ASLIB. 2. Becker, Joseph & Hayes, Robert M. (1967). Information Storage and Retrieval tools Elements & Theories. New York: John Wiley. 3. Chowdhury, G. G. (2010). Introduction to Modern Information Retrieval. Facet Publishing 4. Elis, David. (1996). Progress and Problems in Information Retrieval. Library Association. 5. Fosket, A. C. (1992). Subject Approach to Information. Clive Bingley. 6. Fugman, Robert. (1993). Subject Indexing and Analysis Theoretical Foundations & Practical Advice. Index Verlag. 7. Grolier, Eric de. (1962). A Study of general Categories Applicable to Classification and Coding in Documentation. UNESCO. 8. Lancaster, F.W. (1977). The Measurement and Evaluation of Library Science. Information Sources Press. 9. Losee, Robert M. (1998). Text retrieval and Filtering: Analytical Models of Performance. Kluwer. 10. Meadow, Charles T. (2000). Text Information retrieval system. Academic Press. 11. Sharp, Harold S. (1964). Readings in Information Retrieval. The Scarecrow Press. 12. Soergel, Dagobert. (1974). Indexing Languages & Thesaurus Construction & Maintenance. Melville Pub. House. 13. Soergel, Dagobert. (1985). Organizing Information. Principles of Database & Retrieval Systems. Academic Press.	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	2	1	3
CO 2	3	2	2	3	3
CO 3	3	3	3	3	3
CO 4	2	3	3	2	3
CO 5	3	3	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6

Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments & Seminar

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2033
Course Name : Web Technology

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to

	Course Outcome	Level
CO 1	Explain the features and services of Internet.	Understand
CO 2	Understand the theories and principles of World Wide Web	Understand
CO 3	Developing a theoretical base on search engines performance	Apply
CO 4	Examine the various communication tools available over the web.	Analyze
CO 5	Apply the theories of World Wide Web to overcome from the online threats	Skill

b. Syllabus

Units	Content	Hrs.
I	Internet: An Overview Internet: Overview and History; Internet Architecture: H/W & S/W Components, Client/Server Principle, Routers, Connection Types, ISP, Internet Protocols, Uniform Resource Locator, IP Address; Domain Name System; Web servers, Hyper Text, Hyper Link, and Hyper Media.	12
II	WWW: An Overview Evolution and Growth of WWW; Web Languages and Technologies; Web Browsers (Chrome, Firefox, Explorer); Semantic Web; Invisible Web; Deep Web; Dark Web; Web Accessibility Standards (WCAG).	12
III	Search Engines Concept of Search Engines; Types of Search Engines (General Search Engines, Meta Search Engines, Intelligent Search Engines, Subject Specific Search Engines); Search Technologies and Strategies; Benefits and Limitations of Search Engines; Design and Evaluation of Search Engines.	12
IV	Web Tools & Services Communication Tools & Services: Concept & Role in Communication; Communication & Collaboration Tools: Email, Instant Messaging, Video Conferencing Tools, Collaborative Workspaces; Search Tools & Information Discovery: Search Engines, Academic Search Tools, Subject Directories; Content Enriching Services: Blogs, Wikis, Social Networking Sites.	12
V	Internet Security Internet Security: Concept, Types of Threats, Principles of Security; Common Internet Threats: Malware, Phishing Attacks, Ransomware, MITM Attacks, DoS/DDoS Attacks; Security Mechanisms & Tools:	12

	Firewalls, Anti-Virus, Anti-Spyware, Encryption, VPN, 2FA, MFA, Proxy Servers; Cyber Crime: Provision in the Indian IT Act.	
	Tasks and Assignments: Each student is required to submit the following: Task 1: List out the different search engines with their salient features. Task 2: Find out the content enriching blogs/sites. Task 3: Explore the provisions of cyber-crime act in Indian scenario. Assignment 1: Prepare and submit a detailed note on Internet Architecture. Assignment 2: Write an essay on latest trends on WWW. Assignment 3: Prepare and submit a detailed note search engines and its functioning. Assignment 4: Explain the need of Internet Security and how to overcome from this issue.	
	References: 1. Bates, Chris. (2006). Web Programming: Building Internet Applications. 3 rd ed. New Delhi: Wiley-India. 2. Crumlish, Christian. (2007). The ABCs of the Internet. New Delhi: BPB Publications. 3. Hartl, Michael and Prochazka, Aurelius. (2007). Rails Space: Building a Social Networking Website with Ruby on Rails. Addison-Wesley Professional. 4. Kalbach, J. (2007). Designing Web Navigation: Optimizing the User Experience. Sebastopol: O'Reilly Media. 5. Miller, Joseph B. (2008). Internet Technologies and Information Services (Library and Information Science Text Series). Libraries Unlimited. 6. Morville, Peter and Rosenfeld, Louis. (2006). Information Architecture for the World Wide Web: Designing Large-Scale Web Sites. 3rd ed. Sebastopol: O'Reilly Media. 7. Nair, R. Raman. (2002). Internet for Information Services. New Delhi: EssEss Publications. 8. Robbins, Jennifer Niederst. (2012). Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics. 4th ed. Sebastopol: O'Reilly Media. 9. Sehgal, R. L. (2000). Internet and Internet for Librarians. New Delhi: EssEss Publications. 10. Russell, Jesse and Cohn, Ronald (eds.). (2012). Web Browser. Book on Demand Ltd. 11. Stallings, William. (2007). Computer Networking with Internet Protocols and Technology. Delhi: Pearson Education. 12. Weinberg, Tamar. (2009). The New Community Rules: Marketing on the Social Web. Sebastopol: O'Reilly Media	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	3
CO 2	3	3	3	3	3
CO 3	3	3	2	3	3

CO 4	2	3	3	3	3
CO 5	3	3	3	2	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments & Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2034
Course Name : Ontology and Semantic Web

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will have knowledge on Ontology and Semantic Web

	Course Outcome	Level
CO 1	To understand ontology as a core component of knowledge organization.	Understand
CO 2	To explore Semantic Web technologies and standards	Apply
CO 3	To apply Linked Data principles in library systems	Analyze
CO 4	To examine AI-driven ontology developments	Create
CO 5	To analyse emerging trends like knowledge graphs and FAIR data in LIS	Skill

b. Syllabus

Units	Content	Hrs.
I	Foundations of Ontology and Knowledge Organization Philosophical Origin, Definition, and Scope of Ontology; Ontology vs Taxonomy, Thesaurus, Classification; Components: Classes, Properties, Relations, Instances; Types: Upper, Domain, Task, Application Ontologies; Ontology in Knowledge Organization; Role in Digital Libraries and Information Retrieval Systems; Introduction to Ontology-based Metadata and Semantic Structuring.	12
II	Semantic Web Architecture and Standards Evolution, Concept of Semantic Web; Contribution of Tim Berners-Lee; Semantic Web Architecture (Layered Model); Core Standards: URI, XML, Unicode; RDF, RDFS, OWL; SPARQL Query Language; Metadata, Machine Readable Data, and Semantic Interoperability.	12
III	Ontology Engineering, Tools, and AI Integration Ontology Development Life Cycle and Methodologies; Ontology Evaluation, Mapping, and Alignment; Tools: Protégé, Top Braid Composer; Automated Ontology Construction and Ontology Learning; Integration with Artificial Intelligence: Machine Learning and NLP in Ontology Development, Neuro-symbolic AI (logic+deep learning); Role of Large Language Models (LLMs): Ontology Extraction from Text; Semantic Annotation and Metadata Generation; Ontology-supported Information Systems and Chatbots.	12
IV	Linked Data, Knowledge Graphs, and Library Applications Principles of Linked Data and 5-star LOD model; Key Datasets: DBpedia, Wikidata; Knowledge Graphs: Concept and Architecture, Context Graph; Transition from Ontology – Knowledge Graph, Graph-based Bibliographic Data Models; Applications in LIS: Discovery Systems and Semantic Search, Digital Libraries, Archives, and	12

	Museums; Research Data Integration and Scientometrics; Semantic Publishing and Open Science.	
V	Emerging Trends, FAIR Data, and Research Issues in LIS FAIR Data Principles (Findable, Accessible, Interoperable, Reusable); Provenance Ontologies (PROV-O) and Data Transparency; Foundational Ontologies (BFO, DOLCE, gUFO) and Standardization; Ontology-based Research Data Management Systems; Semantic Interoperability across Library Systems; Emerging Technologies: Knowledge Graphs+AI Integration, Ontology-driven Retrieval-Augmented Generation (RAG), Smart Libraries and Personalized Services; Challenges: Scalability and Complexity, Interoperability and Standardization, Ethical Issues in AI and Data Use; Future Directions: Web 4.0, Intelligent Information Ecosystems.	12
	Assignments Assignment 1: Prepare and submit a detailed note on taxonomy. Assignment 2: Prepare and submit a detailed note on automated ontology construction. Assignment 3: Explain in detail on Ontology-driven Retrieval-Augmented Generation.	
	References: 1. Al-Aswadi, F. N., Chan, H. Y., & Gan, K. H. (2020). "Automatic ontology construction from text: a review from shallow to deep learning trend." <i>Artificial Intelligence Review</i> , 53(6), 3901-3928. 2. Almeida, J. P. A., et al. (2026). "gUFO: A Gentle Foundational Ontology for Semantic Web Knowledge Graphs." <i>arXiv preprint</i> . 3. Berners-Lee, T., Hendler, J., & Lassila, O. (2001). "The Semantic Web." <i>Scientific American</i> , 284(5), 34-43. 4. Bizer, C., Heath, T., & Berners-Lee, T. (2011). "Linked Data: The Story So Far." <i>International Journal on Semantic Web and Information Systems</i> , 2(3), 1-22. 5. Confalonieri, R., & Guizzardi, G. (2025). "On the multiple roles of ontologies in explanations for neuro-symbolic AI." <i>Neurosymbolic Artificial Intelligence</i> . 6. Färber, M., Bartscherer, F., Menne, C., & Rettinger, A. (2018). "Linked data quality of DBpedia, Freebase, OpenCyc, Wikidata, and YAGO." <i>Semantic Web</i> , 9(1), 77-129. 7. Guizzardi, G. (2005). <i>Ontological Foundations for Structural Conceptual Models</i> . Telematica Instituut Fundamental Research Series. 8. Gul, S., & Bano, S. (2019). "Smart libraries: an emerging and innovative technological habitat of 21st century." <i>The Electronic Library</i> , 37(5), 764-783. 9. Hodge, G. (2000). <i>Systems of Knowledge Organization for Digital Libraries: Beyond Traditional Authority Files</i> . Council on Library and Information Resources. 10. Hogan, A., Blomqvist, C., Cochez, M., et al. (2021). "Knowledge Graphs." <i>ACM Computing Surveys (CSUR)</i> , 54(4), 1-37.	

	11. Kless, D., Milton, S., Kazmierczak, E., & Lindenthal, J. (2015). "Thesaurus and ontology structure: Formal and pragmatic differences and similarities." <i>Journal of the Association for Information Science and Technology</i>, 66(7), 1348-1366. 12. Lebo, T., Sahoo, S., & McGuinness, D. (2013). PROV-O: The PROV Ontology. W3C Recommendation. 13. Mandal, P. S., & Mandal, S. (2026). "Empowering Digital Library Management through Knowledge Graphs." <i>International Conference on Smart Systems</i>. 14. Musen, M. A. (2015). "The Protégé project: a look back and a look forward." <i>AI Matters</i>, 1(4), 4-12. 15. Noh, Y. (2015). "Imagining library 4.0: Creating a model for future libraries." <i>The Journal of Academic Librarianship</i>, 41(6), 786-797. 16. Schmitz, P. (2008). "The Delphi Toolkit: Enabling Semantic Search for Museum Collections." <i>Museums and the Web</i>. 17. Shadbolt, N., Berners-Lee, T., & Hall, W. (2006). "The Semantic Web Revisited." <i>IEEE Intelligent Systems</i>, 21(3), 96-101 18. Sure, Y., Staab, S., & Studer, R. (2009). "Ontology Engineering Methodology." In <i>Handbook on Ontologies</i> (pp. 135-152). Springer. 19. Toro, S., Anagnostopoulos, A. V., Bello, S. M., et al. (2024). "Dynamic retrieval augmented generation of ontologies using artificial intelligence (DRAGON-AI)." <i>Journal of Biomedical Semantics</i>, 15(1). 20. Wielinga, B. J., Schreiber, A. T., Wielemaker, J., & Sandberg, J. A. (2001). "From thesaurus to ontology." <i>Proceedings of the 1st international conference on Knowledge capture</i>, 194-201. 21. Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., et al. (2016). "The FAIR Guiding Principles for scientific data management and stewardship." <i>Scientific Data</i>, 3(1), 160018. 22. World Wide Web Consortium (W3C). (2012). <i>OWL 2 Web Ontology Language Document Overview</i> (2nd ed.). 23. World Wide Web Consortium (W3C). (2013). <i>SPARQL 1.1 Overview</i>. 24. World Wide Web Consortium (W3C). (2014). <i>RDF 1.1 Primer</i>. 25. Antoniou, Grigoris & Harmelen, Frank Van. (2004). <i>A Semantic Web Primer</i>. MIT Press. 26. Uschold, Michael. (2022). <i>Demystifying OWL for the Enterprise</i>. Springer Nature. 27. Maria Keet, C. (2018). <i>An Introduction to Ontology Engineering</i>. College Publications. 28. Negus, Christopher. (2020). <i>Linux Bible</i> (10th Edition). Wiley.	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5

h. Rubric for Seminar

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

Course Code : LIS2035
Course Name : Digital Library & Content Management – Practice

Credit Distribution			Total Credits	Internal Marks					Total Marks
L	T	P	L+T+P	C1	C2	C3	C4	C5	C1+...+C5
0	0	2	2	20	20	20	20	20	100

a. Course Outcome (CO)

After completion of this course, students will be able to design and develop an infrastructure to provide services using Content Management Systems (CMS) and Repository Software.

	Course Outcome	Level
CO 1	Identify the basic requirements of CMS& Repository Software installation procedure	Understand
CO 2	Carryout the installation and configuration of the CMS& Repository Software	Apply
CO 3	Examine the functionality of CMS& Repository Software	Analyse
CO 4	Construct a functional web platform for managing the content and a repository for the documents	Create
CO 5	Plan and deploy websites and digital repositories	Skill

b. Syllabus

Units	Content	Hrs.
I	Content Management Systems – Joomla/WordPress Installation and Configuration – Control Panel, Global Settings, Customization of User Interfaces, Themes, Managing Users – Creating Users, Access Control.	12
II	Content Management Systems – Joomla/WordPress Managing the Content –Adding Pages/ Articles, Managing Templates, Managing Menus, Using Extensions/Widgets.	12
III	Designing Digital Library – DSpace Installation and Configuration, Customization of User Interfaces- Menus, Side bar, Adding users- E-persons, Groups, Managing Themes.	12
IV	Collection Management – DSpace Developing Communities – Create, Delete, Edit, Managing Collections- Create, Delete, Edit, Export, Managing Items; Add items, Editing, Deleting, Authorization, Embargo, Harvesting Metadata using OAI-PMH.	12
V	Content Administration -DSpace Customization of Item Submission Workflow, Item Metadata, Managing Indexing and Searching the Content.	12
	Tasks and Assignments: Each student is required to perform the following: Task 1: Customize the CMS user interface with changing the themes and templates.	

	Task 2: Demonstrate the collection development and management using the repository software. Task 3: Showcase how to design and manage the content using CMS by creating a website. Task 4: Exhibit the configuration of indexing and searching in a digital repository.	
	References: 1. Joomla Documentation https://docs.joomla.org/Special:MyLanguage/Portal:Administrators 2. WordPress Documentationhttps://wordpress.org/documentation/ 3. DSpace Documentation https://wiki.lyrasis.org/pages/viewpage.action?pageId=230827454 4. Boiko, Bob. (2004). Content Management Bible. Wiley. 5. Casey, Meghan. (2015). The Content Strategy Toolkit: Methods, Guidelines, and Templates for Getting Content Right. New Riders 6. Krug, Steve (2015). Don't Make Me Think, Revisited: A Common-Sense Approach to Web Usability. Pearson. 7. Shreves, R. (2013). Joomla! bible (Vol. 814). John Wiley & Sons	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	3	2	1
CO 2	3	3	3	2	1
CO 3	3	2	2	3	3
CO 4	3	3	3	3	2
CO 5	3	3	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal 1	10	10	10	10	10	50
Internal 2	10	10	10	10	10	50
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (100 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Rubric for Assignments/Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LISEC02
Course Name : Academic Library System

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will become aware of the functions and activities of Academic libraries, and their working system.

	Course Outcome	Level
CO 1	Understand the objectives, functions and services of academic libraries.	Understand
CO 2	Design collection development policy and programmes in academic libraries.	Apply
CO 3	Understand major financial resources and essentials of physical and human resource development in academic libraries.	Understand
CO 4	Compare staffing norms and standards in various types of academic libraries.	Analyze
CO 5	Explain consortia services for academic libraries.	Understand

b. Syllabus

Units	Content	Hrs.
I	Academic Library: Objectives and Functions Role of Academic Library in Higher Education; Academic Library Management; Academic Library Services; Role of UGC for Academic Library Development.	12
II	Collection Development Collection Development Policy / Weeding Out Policy; Collection Organisation; Collection Development Programmes.	12
III	Physical & Financial Resource Management Physical Resources including ICT Infrastructure; Financial Resource Management.	12
IV	Human Resource Management Staffing Norms and Standards; Continuing Education Program for Academic Libraries.	12
V	Academic Library Networks and Consortia INFLIBNET: Objectives, Functions and Services; MoE/UGC-INFLIBNET Initiatives for Academic Library Development – ONOS; CERA, HELINET, CSIR E- Journals Consortium (NKRC).	12
	Tasks and Assignments: Each student is required to do the following: Task 1: Prepare a collection development policy for a school library. Task 2: Submit an assignment on staffing norms and standards for a university library.	

	Task 3: Make a PowerPoint presentation on INFLIBNET initiatives for academic libraries.	
	References: 1. Box, Kausik. (1991). Information Networks in India: Problems and Prospects. Ess Ess. 2. Cowley, John. (1982). Personnel Management in Libraries. Clive Bingley 3. Dale, Penny. Beard, Jill & Holland, Matt (2016). University Libraries and Digital Learning Environment. Ashgate 4. Evans, G. E. (1983). Management Techniques for Librarians. Academic Press. 5. Gelfand, M A. (1974). University Libraries for Developing Countries. University Book and Stationery. 6. Girja Kumar. (1987). Library Development in India. Vikas. 7. Gurdev Singh. (2015). Academic Library System and Services. Ess Ess. 8. Hingwe, K S. (1982). Management of University Libraries in India. The World Press. 9. Kent, A and Galvin, TJ. (1979). The Structure and Governance of Library Networks. New York: Marcel Dekker. 10. Krishan Kumar. (1987). Library Administration and Management. Vikas. 11. McDonald, Joseph & Micikon, Basney. (1994). Academic Libraries: The Dimensions of their Effectiveness. Greenwood Press. 12. McKee, Bob. (1989). Planning Library Service. Clive Bingley. 13. Mittal, R L. (1993). Library Administration: Theory and Practice. Metropolitan 14. Ranganathan, S R. (1989). Library Book Selection. Sarada Ranganathan Endowment for Library Science. 15. University Grants Commission. (1993). Report of the curriculum Development Committee in Library and Information Science. New Delhi: UGC.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	3	2	1	3
CO 2	3	3	3	2	3
CO 3	3	3	3	2	3
CO 4	2	3	3	2	3
CO 5	3	3	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay- 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO2, CO3, CO4
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO2, CO3, CO4

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO5,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO5

Course Code : LISEC03
Course Name : Public Library System

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will be thorough with the functions and activities of public libraries, and their working system.

	Course Outcome	Level
CO 1	Understand the distinguished responsibilities of public libraries and explain their role as a social institution	Understand
CO 2	Explain the role of various agencies in the development of public library system	Understand
CO 3	Describe methods of collection development, major financial resources and essentials of physical and human resource development in public libraries	Analyze
CO 4	Learn various services in public library	Apply
CO 5	Understand new trends in public libraries and make students able to design activities and services accordingly	Synthesize

b. Syllabus

Units	Content	Hrs.
I	Public Library: Objectives and Functions Public Library: Concept and Definition; Origin and Growth of Public Libraries in India; Role of Public Libraries – Public Library as a Social Institution, Public Library as Knowledge Centres; Public Library Management; Organizational Structure of Public Library System.	12
II	Role of Various Agencies Role of Various Agencies in Promotion and Development of Public Libraries - UNESCO, IFLA, RRRLF, National Knowledge Commission (NKC), Indian Public Library Movement (IPLM).	12
III	Resource Development Information / Intellectual Resources; Physical Resources including ICT Infrastructure; Human & Financial Resource; Resource Mobilization in Public Library.	12
IV	Public Library Services Public Library Services; Public Library as Community Information Centre; ICT Application in Public Libraries.	12
V	Public Libraries: Trends and Development Resource Sharing and Networking; Changing Dimensions of Public Libraries.	12

	Tasks and Assignments: Each student is required to do the following: Task 1: Prepare an assignment on public library movement in India. Task 2: Design a service for the farmer community of the society. Task 3: Make a PowerPoint presentation on potential areas of public library involvement in the society.	
	References: 1. American Library Association. (1967). Minimum Standards for Public Library Systems. Chicago. ALA. 2. Barua, B P. (1992). National Policy on Library and Information Systems and Services for India: Perspectives and Projections. Popular. 3. Batt, Chris. (1998). Information Technology in Public Libraries. Library Association. 4. Corbett, E V. (1978). Fundamentals of Library organization and Administration. New York: Oxford IBH. 5. Gardner, F M. (1971). Public Library Legislation: A Comparative Study. UNESCO. 6. Gates, J K. (1990). Introduction to Librarianship. Neal-Schuman. 7. IFLA. IFLA Guidelines for Public Libraries. The Hague: IFLA 8. IFLA. The Public Library Service: IFLA/UNESCO Guidelines for development. 9. Martin, Lowell A. (2003). Enrichment: A history of the Public Library in the United States in the Twentieth Century. Scarecrow. 10. McClure, Charles R., and Jaeger, Paul T. (2009). Public Libraries and Internet Service Roles: Measuring and Maximizing Internet Services. ALA 11. Murison, W J. (1988). The Public Library: Its origin, purpose and significance. Clive Bingley. 12. Patel, Jashu and Kumar, Krishan (2004). Libraries and Librarianship in India. Westport: Greenwood 13. Ranganathan, S R. (1959). Library Administration. Bangalore: SRELS. 14. Shera, Jesse H. (1965). Foundations of the Public Library: The Origins of the Public Library Movements in New England (1629-1855). Shoestring Press. 15. Venkatappaiah, V. (1990). Indian Library Legislation. Vol.I&II Union Library Bills and Acts. Daya Publishing House. 16. White, Horbert S. (1985). Library Personnel Management. Knowledge Industry Publications	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	2	1	3
CO 2	2	2	2	1	3
CO 3	3	3	3	2	3
CO 4	3	3	3	2	3
CO 5	3	3	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay- 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific	Ideas are presented but not particularly developed or supported	Content is not sound	Not attended	CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion	Organizational tools are weak or missing	No organization	Not attended	CO4, CO5

Course Code : LISSE01
Course Name : Personality Development & Communication Skills

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
2	0	0	2	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Understand the traits of personality and its role in personal grooming.	Understand
CO 2	Illustrate the different types of communication skills	Apply
CO 3	Examine the public relation skills and liasoning with users.	Analyze
CO 4	Formulate the concept of leadership and vision of the organization	Create
CO 5	Understand the management approaches of organizational environment.	Skill

b. Syllabus

Units	Content	Hrs.
I	Personality and its Characteristics Personality Types, Traits and Characteristics; Soft Skill Development; Attitude, Appearance.	6
II	Communication Skill Professional Communication Skills (Verbal, Non-Verbal & Written); Presentation Skill; Body Language; Interpersonal Skills; Listening Skill.	6
III	Public Relation Skills Publicity; Public Relations; Promotion; Liasoning with Library Authority and Patrons.	6
IV	Leadership and Vision Skills Team Leadership; Problem Solving; Negotiation Skills & Strategies; Visionary and Futuristic Approach.	6
V	Management Skills Time Management; Stress Management; Project Management; Conflict Management and Crisis Management Skills.	6
	Tasks and Assignments: Each student is required to do the following: Task 1: Learn and develop the soft skills in themselves. Task 2: Observe the self-appearance and improve the appearance style. Task 3: Analyze the body language of your best friend and suggest for improvement. Task 4: Explore the interpersonal skills in self. Each student is required to submit the following Assignment 1: Write a detailed plan for publicity of library services.	

	Assignment 2: Assess the need of liaisoning between library staff and users and submit a report. Assignment 3: Submit a report on different management skills.	
	References: 1. Aitchison, J. (1988). Teach Yourself Linguistics. Hodder and Stoughton. 2. Gladis, S. D. (1993). Write type, personality types and writing styles. Amherst, Mass.: Human Resource Development Press. 3. Gupta, S. (2009). Personality development and communication skills. Jaipur, India: Book Enclave. 4. Harrison, C. (1980). Readability in the Classroom. Cambridge: Cambridge University Press. 5. Huckin, T. N. and Olsen, L. A. (1991). Technical Writing and Professional Communication for Non-Native Speakers of English. 2nded. New York: McGraw-Hill. 6. James, G. Gray. (1986). Strategies and Skills of Technical Presentations. Westfort: Greenwood Press. 7. Karten, N. (2010). Presentation skills for technical professionals achieving excellence. Ely: IT Governance Publications. 8. Masters, L. A., Wallace, H. R., & Harwood, L. (2011). Personal development for life and work (10th ed.). Australia: South-Western Cengage Learning. 9. McMurry, J. H. (2002). The etiquette advantage: personal skills for social success. Wilmington, NC: Stellar Publications. 10. Swain, D. V. and Swain, J. R. (1991). The Issue of Audience. In Scripting for the New Audio-Visual Technologies. 2nd ed. Chapter 4. Boston: Focal Press. 11. Born, Paul. (2012). Community conversations: mobilizing the ideas, skills, and passion of community organizations, governments, businesses, and people. BPS books. 12. Cain, Susan. (2013). Quiet: The power of introverts in a world that can't stop talking. Penguin. 13. Cartwright, Roger. (2002). Mastering team leadership. Macmillan. 14. Dewey, Barbara & Creth, Sheila D. (1993). Team Power: Making Library Meetings Work. ALA 15. HBR's 10 Must Read: On Leadership (2011). Harvard Business Review. 16. HBR's 10 Must Reads: On Managing People. (2011). Harvard Business Review. 17. HBR's 10 Must Reads: On Managing Yourself. (2011). Harvard Business Review. 18. HBR's 10 Must Reads: On Strategy (2013). Harvard Business Review. 19. HBR's 10 Must Reads: On Teams (2013). Harvard Business Review. 20. Scott, Cynthia, D. Jaffe, Tobe, Dennis T. & Glenn, R. (1995). Organizational vision, values and mission. Crisp.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	1	3	3	3
CO 2	3	1	2	2	3
CO 3	3	1	3	3	3
CO 4	2	1	3	3	3
CO 5	2	1	2	1	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments/Tasks

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5

2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5
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FOURTH SEMESTER

SN	Course Code	Course Name	Credit Pattern				Hours /Week	Marks System		
			L	T	P	Total		CIA	Sem.	Total
FOURTH SEMESTER										
24	LIS2041	Project Work/ Dissertation & Viva-Voce	0	8	0	8	16	---	100	100
25	LIS2042	Intellectual Property Rights	3	0	0	3	3	40	60	100
26	LISEC04	Technical Communication	4	0	0	4	4	40	60	100
	LISEC05	Knowledge Management								
27	LISEC06	Informetrics & Scientometrics	4	0	0	4	4	40	60	100
	LISEC07	Information Needs & Seeking Behaviour								
28	LISEC08	Information Literacy	3	0	0	3	3	40	60	100
	LISEC09	Open Access & E-Resource Management								
Total			14	8	0	22	30	160	340	500

Course Code : LIS2041
Course Name : Project Work/Dissertation & Viva-Voce

Credit Distribution			Total Credits	Dissertation Report	Viva-Voce	Total Marks
L	T	P	L+T+P			
0	8	0	8	60	40	100

a. Course Outcome (CO)

After completion of the course, students will be able to

	Course Outcome	Level
CO 1	Explain the research concept and its process	Understand
CO 2	Illustrate the research problems & research design	Apply
CO 3	Examine the research method and techniques	Analyze
CO 4	Formulate the solutions for their research problems	Create
CO 5	Assess the proficiency with the help doing research	Skill

b. Syllabus

Content
Every student shall have to choose a topic for the dissertation on LIS related areas approved by the Department Council, under the guidance of a Faculty Member. The final prepared Dissertation / Project Report shall be submitted to the Department before the commencement of the 4th Semester Examination for evaluation. The Dissertation/ Project Report shall be evaluated by the internal examiners followed by a Viva-Voce. The grading shall be divided into two parts: a) Dissertation Report Evaluation (60 Marks) and b) Viva-Voce (40 Marks).

c. Mapping of Program Outcomes with Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO 1	3	1	2	3	2
CO 2	3	1	2	2	2
CO 3	3	1	1	3	3
CO 4	3	1	2	2	3
CO 5	3	1	2	3	2

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal / Viva	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Rubric for Internal/Viva-Voce

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LIS2042
Course Name : Intellectual Property Rights

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

On completion of this course, students will acquire knowledge about different types of Intellectual property rights, national laws related IPR and their implications in libraries.

	Course Outcome	Level
CO 1	Define Intellectual Property and enumerate different types of IPR	Remember
CO 2	Differentiate between different types of IPR	Understand
CO 3	Learn international treaties and laws related to IPR	Analyze
CO 4	Examine copyright issues while sharing web-based content	Apply
CO 5	Learn about challenges and evolving issues in IPR	Evaluate

b. Syllabus

Units	Content	Hrs.
I	Intellectual Property Rights Meaning and Scope; Categories of IP.	9
II	International Treaties on IPR Berne Convention; Universal Copyright Convention; Stockholm Conference; Paris Conference; WIPO Copyright treaty; GATT; TRIPS.	9
III	National Laws Copyright Law of India and its Amendments; Fair Use Provision; Patent Law of India and Amendments; Other Laws related to IPR.	9
IV	Implications of IPR Protection of Web-based Content; Copyright and Libraries; Copy Left Movement; Creative Commons.	9
V	Emerging Issues in IPR Challenges for IP with Advances in ICT: E-Commerce, Domain Names; IT Act 2000; Biotechnology and IP; Traditional Knowledge, Folklore and IP, Biodiversity and IP, AI and IPR.	9
	Tasks and Assignments: Each student is required to do the following: Task 1: Analyze the given two cases and determine their patentability. Task 2: Submit an assignment on copyright issues in libraries in the digital information context. Task 3: Make a PowerPoint presentation on patent law of India. Task 4: Participate in the discussion about the need for protecting Traditional Knowledge.	

	References: 1. Agnew, Grace. (2008). Digital Rights Management: A Librarian's Guide to Technology and Practise. Chandos 2. Andrew Murra. (2010). Information Technology Law: The law and society. Oxford. 3. Carlos M. Correa and Abdulqawi A. Yusuf. (2008). Intellectual Property and International Trade: The TRIPS Agreement. Oxford. 4. Deborah E. Bo choux. (2012). Intellectual Property: The Law of Trademarks, Copyrights, Patents, and Trade Secrets. Cengage. 5. Munari, Federico & Oriani, Raffaele. (2011). The Economic Valuation of Patents: Methods and Applications. Edward. 6. Fishman, Stephen. (2008). The copyright handbook: what every writer needs to know. Berkeley. Nolo. 7. Freeman, Lee & Peace, A. Graham. (2005). Information ethics: privacy and intellectual property. Information Science Pub. 8. Jessica Littman. (2001). Digital Copyright: Protecting Intellectual Property on the Internet. Prometheus. 9. May, Christopher. (2007). Digital Rights Management: The Problem of Expanding Ownership Rights. Chandos. 10. Much, Jude C. (2008). Trade Marks and Copyright for Dummies. Amazon.com. The World beyond Digital Rights Management. Wiley. 11. Pandey, N. & Dharni, K. (2014). Intellectual Property Rights. Delhi: PHI Learning. 12. Tian, Y.J. & Winn, J. (2008). Re-thinking Intellectual Property: The Political Economy of Copyright Protection in the Digital Era. Routledge.	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	2	2	3
CO 2	3	3	3	1	2
CO 3	3	3	3	2	2
CO 4	3	3	3	3	3
CO 5	1	2	2	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO4
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO4

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO5,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO5

Course Code : LISEC04
Course Name : Technical Communication

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

On completion of this course, the students will be familiar with the process of technical writing, layout and presentation of information in different types of technical write-ups, and they also will be trained in audio visual presentation skills.

	Course Outcome	Level
CO 1	Define communication and explain its types	Remember
CO 2	Differentiate between creative writing and technical writing	Understand
CO 3	Measure readability of text	Apply
CO 4	Compare the structure of different types of technical write-ups	Analyze
CO 5	Prepare different types of technical documents and presentations	Skill

b. Syllabus

Units	Content	Hrs.
I	Communication Process Communication Process; Types: Verbal, Non-verbal; Formal, Informal; Types of Writing; Technical Writing: Principles, Characteristics; Audience Research.	12
II	Linguistic Aspects in Writing Language as a Medium for Communication; Readability; Readability Formulae; Common Problems in Spelling, Grammar, Usage and Punctuation.	12
III	Mechanics of Writing Writing Process – Steps; Paragraph Organization, Writing Styles; Style Manuals; Copy Editing and Proof Reading.	12
IV	Organization, Layout and Presentation of Information Research Paper; Review Articles; Technical Reports; Theses and Dissertations; Project Proposal; Book Design and Page Layout.	12
V	Oral Presentation Parts of Presentation – Introduction, Body and Conclusion; Common Presentation Types; Audio-Visual Presentation.	12
	Tasks and Assignments: Each student is required to submit the following: Task 1: Prepare an indicative and informative abstract of a research paper. Task 2: Develop a project proposal. Task 3: Take seminar with PPTs on the assigned topic.	

	References: 1. Booth, P. F. (1991). Report Writing. 2nd Ed. Huntington. 2. Chandra, A. & Saxena, T. P. (1979). Style Manual. Metropolitan Books. 3. Cooper, B. M. (1986). Writing Technical Reports. Penguin. 4. Gerson, S. J. & Gerson, S. M. (1992). Technical Writing, Process and Product. Prentice Hall. 5. Huckin, T. N. & Olsen, L. A. (1991). Technical Writing and Professional Communication for Non-Native Speakers of English. 2nd Ed. McGraw-Hill. 6. James, G. Gray. (1986). Strategies and Skills of Technical Presentations. Greenwood Press. 7. Sherman, T. A. and Johnson, S. S. (1990). Modern Technical Writing. 5th ed. Englewood Cliffs: Prentice Hall. 8. Van Alstyne J. S. (1986). Professional and Technical Writing Strategies. Englewood Cliffs, New Jersey: Prentice-Hall Inc. 9. Weisman, H. M. (1980). Basic Technical Writing. Charles Oren ill Publishing	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	1	2	2	1	3
CO 2	2	3	3	2	3
CO 3	3	2	2	3	3
CO 4	3	3	3	2	3
CO 5	3	3	3	3	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO3, CO4
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO3, CO4

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO2, CO5,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO2, CO5

Course Code : LISEC05
Course Name : Knowledge Management

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will be able to design and develop a knowledge management infrastructure for an organization.

	Course Outcome	Level
CO 1	Explain the concept of knowledge along with categorization of knowledge.	Remember
CO 2	Understand the concepts and characteristics of knowledge-based economy	Understand
CO 3	Knowledge management strategies and tools in various environments	Apply
CO 4	Analyze the KM strategies through various case studies	Analyze
CO 5	Assess knowledge needs and map the knowledge sources in an organization	Skill

b. Syllabus

Units	Content	Hrs.
I	Knowledge Economy Concept of – Data, Information, Knowledge and Wisdom (DIKW); Knowledge Economy: Communities, Services and Markets.	12
II	Knowledge Management Meaning and Definition of KM; Need for Knowledge Management – Concept, Knowledge Culture – Sharing, Preservation and Reuse of Knowledge; KM Architecture – People, Technology, Process; Types of Knowledge; Knowledge Creation and Transfer Cycle.	12
III	Knowledge Management Strategies Capturing Tacit Knowledge – Experts – Types; Level of Expertise, Single vs Multiple Experts; Methods - Interview, Brainstorming, Protocol Analysis, Consensus Decision Making, The Repertory Grid, Nominal Group Technique (NGT), Concept Mapping, The Delphi Method; Knowledge Codification – Tools and Procedures – Knowledge Maps, Decision Trees, Frames, Case-based Reasoning, Knowledge based Systems.	12
IV	Technologies of Knowledge Management KM Systems – Knowledge Audit; KM System – Analysis, Architecture, Design and Development; KM System Deployment; Tools for Collaborative Environments; Inferencing Knowledge from Data – Tools and Methods.	12
V	Knowledge Organizations	12

	Concept; Skills for Knowledge Worker; Managing Knowledge Workers; Knowledge Management in Library and Information Centers.	
	Tasks and Assignments: Each student is required to do the following: Assignment 1: Illustrate the Knowledge Economy initiatives in India. Assignment 2: Critically evaluate a given case study.	
	References: 1. Awad, E.M. (2007). Knowledge Management. Pearson India, Delhi. 2. Chris J. Collison, Paul J. Corney and Patricia Lee Eng. (2019). The KM Cookbook: Stories and strategies for organizations exploring Knowledge Management Standard. Facet Publishing 3. Christee Gabour Atwood. (2009). Knowledge Management Basics. ASTD Press. 4. Dalkir, Kimiz & Liebowitz, Jay (2011). Knowledge Management Theory & Practice. MIT Press 5. Hislop, Donald. (2009). Knowledge Management in organization. Oxford. 6. Joseph Hilger and Zachary Wahl (2022). Making Knowledge Management Clickable: Knowledge Management Systems Strategy, Design, and Implementation. Springer. 7. Liebowitz, Jay (2012). Knowledge Management Handbook: Collaboration and Social Networking. Taylor and Francis. 8. Patrick Lambe (2023). Principles of Knowledge Auditing: Foundations for Knowledge Management Implementation. The MIT Press. 9. Von Krogh, G., Ichijo, K., & Nonaka, I. (2000). Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation. Oxford university press. 10. Wenger (2002). Cultivating Communities of Practice: A Guide to Managing Knowledge. Harvard Business Review Press.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	2	3	1	3
CO 2	3	3	3	2	3
CO 3	2	3	3	3	3
CO 4	3	3	1	3	2
CO 5	3	3	1	3	3

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3

h. Rubric for Seminar

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Knowledge & Understanding 50%	Exceptional knowledge of facts, terms, and concepts	Detailed knowledge of facts, terms, and concepts	Considerable knowledge of facts, terms, and concepts	Minimal knowledge of facts, terms, and concepts	Not Attended	CO4, CO5
2	Presentation 50%	Well Communicated with logical sequences, examples, and references	Communicated with sequences	Just Communicated	No coherent communication	Not Attended	CO4, CO5

Course Code : LISEC06
Course Name : Informetrics & Scientometrics

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

After completion of the course, students will be aware of various Scientometric indicators and laws, different software's and application of metrics to draw the inferences from published literature.

	Course Outcome	Level
CO 1	Explain the various Scientometric indicators and laws.	Understand
CO 2	Illustrate the the use of various software's and application of metrics.	Apply
CO 3	Examine the different bibliometric indicators.	Analyze
CO 4	Formulate the methods to be adopted in the qualitative measurement of published literature.	Create
CO 5	Assesses the ability of the students on their practical awareness of bibliometric software.	Skill

b. Syllabus

Units	Content	Hrs.
I	Informetrics Informetrics: Genesis, Scope and Definition; Librametry, Bibliometrics, Scientometrics, Webometrics, Altmetrics; Bibliometric Laws and their Applications: Zipf's Law, Lotka's Law, Bradford's Law, Bookstein's Law, Garfield's Law, Price's Law.	12
II	Growth and Obsolescence of Literature Various Growth Models – Exponential Model, Power Model, Logistic Model, Non-linear Models; Obsolescence, Aging Factor and Half-Life.	12
III	Application of Bibliometrics Citation Analysis: Principles; Strengths & Limitations of Citation Studies; Bibliographic Coupling; Co-citation Analysis; Impact & Journal-level Indicators: Journal Impact Factor, Eigen Factor, SCImago Journal Ranking (SJR), Source Normalized Impact per Paper (SNIP); Author-level Indicators: h-index, g-index, i-10index; Field-normalized Indicators: Field-Weighted Citation Impact (FWCI), Relative Citation Ratio (RCR).	12
IV	Data Sources, Mapping and Visualisation Data Sources; Tools for Bibliometric Analysis; Mapping of Science; Visualisation Techniques: Co-citation, Bibliographic Coupling, Keyword Map, Country Collaboration Map.	12

V	Trends and Developments Altmetrics; Altmetrics Scores; Science Policy Studies; Current Trends and Developments in Informetrics and Scientometrics, AI-driven Scientometrics.	12
	Tasks and Assignments: Each student is required to perform the following: Task 1: Prepare an assignment on current trends and developments in Informetrics and Scientometrics. Task 2: Survey the problems and shortcomings of the quantitative studies based on databases. Task 3: Hands on training in visualization software.	
	References: 1. Almind, T C & Ingwersen, P. (1997) Informetric analysis of World Wide Web: Methodological approaches to webometrics. <i>Journal of Documentation</i>, 53(4).412-420. 2. Andres, Ana. (2009). Measuring academic research: How to undertake Bibliometric Study. Oxford. 3. De Bellis, N. (2009). Bibliometrics and citation analysis: From the Science Citation Index to Cybermetrics. Scarecrow press. 4. Egghe, L & Rousseau, R. (1990). Introduction to Informetrics: Quantitative methods in library, documentation and information science. Elsevier Science. 5. Egghe, L. (2006). Theory and practice of the g-index. <i>Scientometrics</i>, 69(1): 131-152 6. Egghe, L. (2010). The Hirsch Index and related impact measures. <i>ARIST</i>, Vol.44, 65-114. 7. Hertz, Dorothy H. (2003). Bibliometric history. In <i>Encyclopaedia of Library & Information science</i>. Ed.2. Vol. 1. Miriam A. Drake. Ed. New York: Marcel Dekker Inc. 8. Lancaster, F W. (1991). Bibliometric methods in assessing productivity and impact of research. Bangalore: SRELS 9. Mahapatra, Gayathri. (2009). Bibliometric studies: In the electronic era. Indiana Books 10. Moed, H F. (2000). Citation Analysis in research evaluation. Springer. 11. Ravichandra Rao, I K (1985). Quantitative methods of Library & Information science. Wiley. 12. Ravichandra Rao, I K. (2010). Growth of Literature and measures of scientific productivity: Scientometric models. Delhi: Ess Ess. 13. Sudhler, K.G. (2017). Informetric studies. Delhi: B R Publishing Corporation. 14. Vinkler, P. (2010). The evaluation of research by scientometric indicators. Oxford: Chandos Publishing. 15. White, Howard D & Mc Cain, Katherine (1989). Bibliometrics. In William, Martha E. Ed. <i>ARIST</i>, Vol. 24. Amsterdam: Elsevier science pub. 16. Wilson, C. S. (1999). Informetrics. In Williams, M E. Ed., <i>ARIST</i>, Vol.34. Medford: Information Today.	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	2	3	3	2	2
CO 2	3	1	3	3	3
CO 3	3	3	2	3	3
CO 4	2	2	1	3	2
CO 5	2	3	2	2	2

d. Evaluation Scheme

	CO1	CO2	CO3	CO4	CO5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5

g. Rubric for Seminar

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

Course Code : LISEC07
Course Name : Information Needs & Seeking Behavior

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
4	0	0	4	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Explain the role of information in the society	Understand
CO 2	Illustrate the different types of users	Apply
CO 3	Examine the user needs and seeking behavior	Analyze
CO 4	Formulate the solutions for the dissemination of information	Create
CO 5	Assess user education	Skill

b. Syllabus

Units	Content	Hrs.
I	Information Users Identification of Users; User Categories: Students, Teachers, Scientists and Technologists, R&D Personnel, Planners, Policy Makers; Information Needs: Concept of Need, Want, Demand & Requirement; Types of Information Needs.	12
II	Information Seeking Behavior & Models Information Seeking Behaviour: Meaning, Definition, Patterns of Information Seeking; Models of Information Seeking: Wilson's Model, Dervin Model, Ellis Model, Kuhlthou's Model, Foster's Non-Linear Model, Kerkelas's Model, Johnson's Model.	12
III	User Studies Meaning, Definition, Importance, Scope and Content of User Studies; Planning and Organization of User Studies; Studies by Types of Libraries: Different User Groups, Different Disciplines; Critical Review of Some Large-scale User Studies; Information Use Studies.	12
IV	Methodology of User Studies Qualitative & Quantitative Techniques; Survey Methods; Data Collection Techniques: Questionnaire, Interview, Observation, Diary, Record Analysis and Citation Studies; Specific Techniques: Scenario Analysis, Interaction Analysis, Delphi Method, Repertory Grid; Evaluation of User Survey.	12
V	User Education Meaning, Definitions and Importance; User Education in the Electronic Environment; Different Methods of Conducting User Education; Evaluation of User Education Programs (UEP); Resource based Instruction.	12

	Tasks and Assignments: Each student is required to do the following: Task 1: Submit a detailed comparative note on information seeking behaviour models. Task 2: Conduct a comparative analysis on different methodologies of user studies.	
	References: 1. Alvite, L. and Barrionuevo, L. (2011). Libraries for Users: Services in Academic Libraries. Oxford: Chandos Publishing. 2. Biblarz, D., Bosch, S. and Sugnet, C. (2001). Guide to Library User Needs Assessment for Integrated Information Resource Management and Collection Management. Maryland: Scarecrow Press, Inc. 3. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited. 4. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited. 5. Ford, N. (2015). Introduction to Information Behavior. London: Facet Publishing. 6. Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc. 7. Henry, M. and Morgan, S. (2002). Practical strategies for modern academic library. London: Aslib-IMI. 8. Kawatra, P. S. (1997). Library user studies: Manual for librarians and information scientists. Mumbai, Jaico. 9. Kumar, P. S. G. (2004). Library and Users: Theory and Practice. Delhi: B. R. Publishing Corporation. 10. Lushington, N. (2002). Libraries Designed for Users: A 21st Century Guide. Chikago: Neal-Schuman Publishers. 11. Balasubramanian, P. (2011). Users and Uses of Library. New Delhi, Deep and Deep Publications Pvt. Ltd. 12. Ruthven, I and Kelly, D. (2011). Interactive Information-seeking Behaviour and Retrieval. London: Facet Publishing. 13. Spiller, D. (2000). Providing Materials for Library Users (6th Ed.). Chicago: Library Association Publishing. 14. Trehan, G. L. (1985). College library management: Academic library system, service and use. New Delhi: Sterling. 15. Allen, B. (1990) 'The Effects of Academic Background on Statements of Information Need' Library Quarterly 60(2): 120-138. 16. Busha, Chand Harter, S. P. (1980). Research Methods in Librarianship: Techniques and Interpretation. London: Academic Press, INC 17. Ellis, D. (1993) 'Modelling the Information Seeking Patterns of Academic Researchers' Library Quarterly 63(4): 469-486. 18. Ford, N. (2015). Introduction to Information Behavior. London: Facet Publishing.	

	19. Ford, N. (2015). Introduction to Information Behaviour. London: Facet Publishing. 20. Hayes, R.M. (1993). Strategic Management for Academic Libraries. London: Greenwood Press. 21. Wilson, T. D. (2022). Exploring Information Behaviour: An Introduction. Sheffield, UK: T.D. Wilson. 22. Wilson, T. D. (January 1981). On User Studies and Information Needs. Journal of Documentation. 37(1): 3–15. doi:10.1108/eb026702. S2CID 14390097.	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments/Tasks

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Course Code : LISEC08
Course Name : Information Literacy

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Explain the role of nature and in the development of an individual	Understand
CO 2	Illustrate the information literacy development skill and competencies	Apply
CO 3	Examine the information literacy in different circumstances	Analyze
CO 4	Formulate the solutions for dissemination of information	Create
CO 5	Assess information literacy proficiency	Skill

b. Syllabus

Units	Content	Hrs.
I	Introduction to Information Literacy Information: Definition, Characteristics, Nature, Value, Obsolescence; Historical Development of Information Literacy; Information Literacy: Definition, Key Components, Lifelong Learning, Information Society.	9
II	Information Literacy Standards Information Literacy Models; Standards: IFLA, ACRL, ALA and SCONUL.	9
III	Types of Information Literacy Media Literacy; Computer Literacy; Digital Literacy; Technology Literacy.	9
IV	Information Literacy and Libraries Information Literacy Programmes in School, College, University and Special Libraries; Library & Resource Literacy; Library & Research Literacy.	9
V	Recent Trends on Information Literacy Programmes and Policies International and National Initiatives; Policies and Guidelines; Information Literacy Skills, Competences and Best Practices; Information Literacy Assessment Evaluation.	9
	Tasks and Assignments: Each student is required to do the following: Task 1: Prepare an assignment on different literacy models. Task 2: Discuss the recent trends in information literacy.	
	References: 1. Association of College and Research Libraries (ACRL). (2000). Information Literacy Competency Standards for Higher Education. American Library Association.	

	2. Bawden, D. (2001). Information and digital literacies: a review of concepts. <i>Journal of Documentation</i>, 57(2), 218-259. 3. Bruce, Christine. (1997). <i>The Seven Faces of Information Literacy</i>. Auslib Press. 4. Council of Australian University Librarians. (2001). <i>Information Literacy Standards</i>. Canberra Council of Australian University Librarians. 5. Society of College, National and University Libraries (SCONUL). (1999). <i>Information skills in higher education: a SCONUL Position Paper</i>. London: 6. SCONUL. http://www.sconul.ac.uk/activities/inf_lit/papers/Seven_pillars.html 7. Torras, M. C. & Saetre, T. P. (2009). <i>Information Literacy Education</i>. Oxford: Chandos Publishing. 8. Association of College and Research Libraries (ACRL). (2000). <i>Information Literacy Competency Standards for Higher Education</i>. American Library Association. 9. Bruce, Christine. (1997). <i>The Seven Faces of Information Literacy</i>. Auslib Press. 10. Council of Australian University Librarians. (2001). <i>Information Literacy Standards</i>. Canberra Council of Australian University Librarians. 11. Torras, M. C. & Saetre, T. P. (2009). <i>Information Literacy Education</i>. Oxford: Chandos Publishing.	
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c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	2
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	2	2	1	3	2
CO 5	1	1	1	1	2

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay- 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO5

h. Rubric for Seminars

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO3, CO4,
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO3, CO4

Course Code : LISEC09
Course Name : Open Access & E-Resource Management

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

a. Course Outcome (CO)

On the successful completion of the course, the student will be able to.

	Course Outcome	Level
CO 1	Understand the basics of e-resources.	Understand
CO 2	Illustrate the different types of e-resources.	Apply
CO 3	Examine the various aspects of web-based e-resources.	Understand
CO 4	Formulate the search to find out the resources from databases.	Analyze
CO 5	Assess the openly available e-resources.	Skill

b. Syllabus

Units	Content	Hrs.
I	E-Resources Definition & Types of E-Resources; Benefits / Advantage of E-Resources; Information / Subject Gateways; Open Course Ware; MOOCs; Swayam; Access of E-Resources through Library Consortia; E-Resource Life Cycle.	9
II	E-Resource Management Electronic Resource Management Systems (ERMS): Selecting, Acquiring/ Subscription/ Purchasing – Vendor Negotiation and Pricing Models; Techniques for Electronic Resource Management (TERMS); Strategic Planning for ERM – Media and Format Migration; Access Management – DRM; Metadata: Requirements, Types; Electronic Usage Statistics; Standards and Guidelines (SUSHI – COUNTER) – LOCKS, CLOCKS.	9
III	Open Access: Concept, Policies and Mandates Open Access Concepts; Open Access Types – Green, Gold, Diamond, Hybrid; Budapest Open Access Initiative; Bethesda Statement on Open Access Publishing; Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities; Plan S; Open Access Initiatives in India.	9
IV	Open Licensing & Open Educational Resources Definition; Creative Commons Licensing; GNU General Public License; Definition and Types of OER; UNESCO Mandate; OER Platforms; OER Initiatives in India; ETDs.	9
V	Infrastructure and Platforms of Open Access E-Resources Institutional Repositories; Preprint Repositories; Directory of Open Access Books (DOAB); Directory of Open Access Journals (DOAJ); Registry of Open Access Repositories (ROAR); SHERPA-RoMEO; FACT; Juliet; OpenDOAR; OAIster Database; Open Access Patent Databases.	9

	Tasks and Assignments: Each student is required to do the following: Task 1: List out the variety of e-resources available in different subjects. Task 2: List out the consortia available in different subjects. Assignment 1: Prepare and submit a detailed list of open educational resources. Assignment 2: Summarize the major open access initiatives in India. Assignment 3: Critically evaluate a given open access policies.	
	References: 1. Ashikuzzaman, Md. (2023a, April 13). E-Resource. Library & Information Science Education Network. https://www.lisedunetwork.com/the-life-cycle-of-e-resource/ 2. Ashikuzzaman, Md. (2023c, April 13). Parameters of information. Library & Information Science Education Network. https://www.lisedunetwork.com/parameters-of-information/ 3. Ashikuzzaman, Md. (2023d, April 13). The needs and importance of information. Library & Information Science Education Network. https://www.lisedunetwork.com/the-needs-and-importance-of-information/ 4. Ashikuzzaman, Md. (2023e, April 14). Advantages of e-resources. Library & Information Science Education Network. https://www.lisedunetwork.com/advantages-of-e-resource/ 5. Chai, W., & Wigmore, I. (2021, May 10). What is a MOOC (massive open online course)? WhatIs.com. https://www.techtarget.com/whatis/definition/massively-open-online-course-MOOC 6. Das, P. K. (n.d.). Subject gateways: The clever way to information. INFLIBNET Centre. https://ir.inflibnet.ac.in/bitstream/1944/107/1/cali_26.pdf 7. Directory of Open Access Books. (n.d.). https://www.doabooks.org/en/doab/purpose-of-doab 8. DOAJ. (n.d.). https://doaj.org/about/ 9. Home: The National Institute of Open Schooling (NIOS). (n.d.-a). https://nios.ac.in/media/documents/SrSecLibrary/LCh-008.pdf 10. Lisbdnetwork. (2023a, April 12). Nature & Benefits of information. Library & Information Science Education Network. https://www.lisedunetwork.com/nature-of-information/ 11. Lisbdnetwork. (2023b, April 13). Definition and types of e-resources. Library & Information Science Education Network. https://www.lisedunetwork.com/definition-and-types-of-e-resources/ 12. Open courseware initiatives in India OER commons. (n.d.-b). https://oercommons.org/courseware/lesson/57131/student/?section=2 13. Swayam Central. (n.d.). https://swayam.gov.in/ 14. Welcome to OpenDOAR - Sherpa Services. (n.d.). https://v2.sherpa.ac.uk/opensoar/ 15. Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. https://openaccess.mpg.de/Berlin-Declaration 16. Bethesda Statement on Open Access Publishing (2003). https://archive.org/details/jlis_it-8628	

17. Budapest Open Access Initiative. https://www.budapestopenaccessinitiative.org/	
18. Creative Commons. https://wiki.creativecommons.org/wiki/Marking_your_work_with_a_C_C_license	
19. OAIster. https://www.oclc.org/en/oaister.html	
20. SHERPA. https://www.sherpa.ac.uk/romeo/	
21. Peter, Suber. Open Access Overview (2007). https://web.archive.org/web/20121022140920/http://www.earlham.edu/~peters/fos/overview.htm	
22. Principles and Implementation of Plan S (2021). https://www.coalition-s.org/addendum-to-the-coalition-s-guidance-on-the-implementation-of-plan-s/principles-and-implementation/	
23. UNESCO OA policy. https://en.unesco.org/open-access/what-open-access	
24. UNESCO mandate in OER. https://www.unesco.org/en/open-educational-resources/mandate	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	1	1	2	3
CO 2	3	2	1	2	2
CO 3	3	1	1	1	1
CO 4	2	3	2	2	3
CO 5	1	2	2	2	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO1	CO2	CO3	CO4	CO5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay- 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

Odd Semester Open Elective

Course Code : LISOE02
Course Name : Artificial Intelligence and Ethics

Credit Distribution			Total Credits	Internal Marks	Semester Marks	Total Marks
L	T	P	L+T+P	CIA	ESE	100
3	0	0	3	40	60	

On the successful completion of the course, the student will be able to

	Course Outcome	Level
CO 1	Understand foundational concepts of AI and ethics	Understand
CO 2	Illustrate the ethical challenges of Artificial Intelligence systems	Apply
CO 3	Analyze the AI regulations and strategies and its effectiveness in managing responsible AI	Analyze
CO 4	Develop principles for the design of responsible AI systems	Create
CO 5	Critically examine AI systems for bias, fairness, accountability, and transparency	Skill

b. Syllabus

Units	Content	Hrs.
I	History of Artificial Intelligence Historical Development of AI and Everyday AI Examples (Search Engines, Recommendation Systems, Chatbots); Foundation Technologies of AI; Different Generations and Types of AI; AI Terminology.	9
II	AI and Society Social Impact of AI Tools; Applications of AI in Teaching, Learning and Research; AI Concerns – Social Discrimination and Data Privacy – Data Collection and Ownership, Consent and Informed Data Use; Plagiarism and Originality Concerns of AI Outputs.	9
III	Technical Dimensions of AI Understanding Algorithmic Bias; Sources of Bias in Data and Models; Fairness Metrics; Basics of Generative AI – Prompting, Common Errors (Hallucinations, Inaccuracies); Key Concepts in AI: Knowledge Representation, Machine Learning, Natural Language Processing (NLP).	9
IV	Transparency and Accountability of AI Platforms Black-box vs Explainable AI, Concept of Transparency, Robustness and Reliability, Concept of Human-AI Interaction, Responsible AI Design Principles.	9
V	AI Ethics and Regulations Need for AI Regulation, Overview of Global Frameworks – European Union AI Act, OECD AI Principles, UNESCO AI Ethics Recommendations and Policies; Compliance and Enforcement Challenges; AI Literacy Frameworks; Trends & Future of AI -	9

	Misinformation and Disinformation, Artificial General Intelligence (AGI) Risks.	
	Tasks and Assignments: Each student is required to do the following: Task 1: Analysis of selected AI platforms. Task 2: Critically examine AI platforms. Task 3: Explore data policies of selected AI tools.	
	References: 1. Negnevitsky, M. (2005). Artificial intelligence: a guide to intelligent systems. Pearson education. 2. Russell, S. J., & Norvig, P. (2021). Artificial Intelligence: A Modern Approach (4th ed.). Pearson Education. 3. Boddington, P. (2017). Towards a code of ethics for artificial intelligence (Vol. 1). Cham: Springer. 4. Coeckelbergh, M. (2020). AI ethics. MIT press. 5. Floridi, L. (2023). The ethics of artificial intelligence: Principles, challenges, and opportunities. 6. O'Neil, C. (2016). Weapons of Math Destruction: How Big Data Increases 7. Inequality and Threatens Democracy. Crown Publishing. 8. Kearns, M., & Roth, A. (2019). The ethical algorithm: The science of socially aware algorithm design. Oxford University Press. 9. Smith, R. E. (2019). Rage inside the machine: The prejudice of algorithms, and how to stop the internet making bigots of us all. Bloomsbury Academic. 10. Agarwal, S., & Mishra, S. (2021). Responsible AI: Implementing ethical and unbiased algorithms. Springer Nature. https://doi.org/10.1007/978-3-030-76860-7	

c. Mapping of Program Outcomes with Course Outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	1	2	1	1	3
CO 2	2	3	1	1	3
CO 3	2	3	2	2	3
CO 4	3	3	1	2	3
CO 5	3	3	2	2	3

d. Evaluation Scheme

	CO 1	CO 2	CO 3	CO 4	CO 5	Total
Internal	8	8	8	8	8	40
External	12	12	12	12	12	60
Total	20	20	20	20	20	100

e. Mapping Course Outcome with Internal Assessment (40 Marks)

	CO 1	CO 2	CO 3	CO 4	CO 5
Assignments	1	1	1	-	-
Seminar	-	-	-	1	1
Test	6	6	6	6	6
Attendance	1	1	1	1	1
Total	8	8	8	8	8

f. Mapping Course Outcome with External Assessment (60 Marks)

Category	CO 1	CO 2	CO 3	CO 4	CO 5
Part – A (MCQ - 10 x 1 = 10 Marks)	2	2	2	2	2
Part – B (Short Answer – 5 x 3 = 15 Marks)	3	3	3	3	3
Part – C (Essay - 5 x 7 = 35 Marks)	7	7	7	7	7
Total	12	12	12	12	12

g. Rubric for Assignments & Tests

SN	Criteria	100%	75%	50%	25%	0%	Relation to COs
1	Content 50%	Ideas are detailed, well developed, supported with specific evidence & facts and examples	Ideas are detailed, Developed and supported with evidence and facts mostly specific.	Ideas are presented but not particularly developed or supported.	Content is not sound	Not attended	CO1, CO2, CO3, CO4, CO5
2	Organization 50%	Includes title, introduction, statement of the main idea with illustration and conclusion.	Includes title, introduction, statement of main idea and conclusion.	Organizational tools are weak or missing	No organization	Not attended	CO1, CO2, CO3, CO4, CO5

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