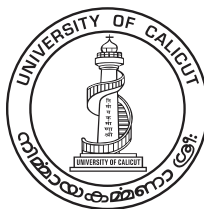


Scheme and Syllabus of

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

**(Choice Based Credit Semester System with Learning Outcomes-Based
Curriculum Framework effective from 2020 admission onwards)**



UNIVERSITY OF CALICUT

(Re-accredited by NAAC with A grade)

**DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE
2020**

Master of Library and Information Science (M.Lib.I.Sc.) at the Department of Library and Information Science, University of Calicut

(Under the Calicut University PG Regulations for the Choice-based Credit Semester System (CCSS)-2019 in the University Teaching Departments; Ref: U.O. No.4500/2019/Admn dated 26.03.2019)

Regulations and Programme Structure

The syllabi and curriculum of Master of Library and Information Science have been revised and restructured with effect from 2020 admissions.

Title of the Programme

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

Duration of the Programme

Two years with four semesters. Semester means a term consisting of minimum 90 working days, inclusive of examination, distributed over a minimum of 18 academic weeks. Academic week is a unit of 5 working days in which distribution of work is organized from day 1 to 5, with 6 contact hours of 1 hour duration in each day. A sequence of 18 such academic week constitutes a semester.

Eligibility and Admission

The eligibility criteria for admission to M.Lib.I.Sc. programme (CCSS) offered by the Department of Library and Information Science, University of Calicut for 2020 batch onwards is any UG degree of this university or an equivalent degree of recognised universities with at least 50 percent of aggregate marks or equivalent grade in the UG degree examination in Part I, Part II and Part III including subsidiary/complementary. The index has to be prepared by adding 50 percent of the aggregate marks obtained by the candidates in the qualifying examination and 50 percent of the marks scored in the entrance examination.

Medium of Instruction

The medium of instruction, examination, assignment, seminar, dissertation and other academic activities is English.

Mode of Teaching

The mode of teaching comprises lectures, tutorials, assignments, seminars, case studies, library observation work, laboratory work, field training/internships and study tours.

Attendance

The minimum requirement of attendance during a semester shall be 75 percent for each course. Condonation of shortage of attendance to a maximum of 10 percent (9 days) in a semester subject to a maximum of two times during the whole period of the programme may be granted by the university.

Programme Structure

The programme shall include three types of courses, Core courses, Elective Courses and Audit Courses. There shall be a compulsory Dissertation to be undertaken by all students.

Requirements	Credits
Accumulated minimum credits required for successful completion of the program	80
Minimum credits required from core courses (including dissertation, viva voce and internship)	64
Minimum credits required from elective courses	16
Minimum and maximum credits to be registered in a semester	16-24

In addition to the core courses, elective courses and compulsory dissertation, which are the mandatory requirement of the programme, each student should undergo audit courses - Ability Enhancement Course (AEC) and Professional Competency Course (PCC) – each with 2 credits in the first two semesters of the programme. These courses are mandatory for all programmes but their credits will not be counted for evaluating the overall SGPA & CGPA. After conducting the AEC and PCC, the evaluation/examination should be done either common for all students of the semester or individually depending upon the AEC and PCC conducted. Evaluation/examination on AEC and PCC must contain the following components: MCQ type written examination, report on study/investigation, presentation, viva voce, etc. as decided by the department council. Evaluation/examination must be conducted as in the theory courses and the GPA and overall grade of the AEC and PCC should be determined. The department shall conduct the evaluation/examination for these courses and have to intimate /upload the results of the same to the university on the stipulated date during the Third Semester. Students have to obtain only minimum pass requirements in the audit courses.

Credit Distribution Table

Semester	No. of Core Courses	Credits from Core Courses	No. of Elective Courses	Credits from Elective Courses	No. of Audit Courses	Credits from Audit Courses	Total Credits
I	4	4X4=16	Nil	Nil	1	2*	16
II	4	4X4=16	1	1X4=4	1	2*	20
III	3	3X4=12	2	2X4=8	Nil	Nil	20
IV	4	(3X4)+ (1X8)=20	1	1X4=4	Nil	Nil	24
Total							80

*The credits from the audit courses will not be counted for computing the SGPA/CGPA of the student. Students have to obtain only pass minimum requirements in the audit courses.

Scheme of Evaluation

Evaluation of all semester theory/ practical papers will be done in two parts namely by continuous internal evaluation and external evaluation. The distribution of marks between internal and external examinations will be as follows:

Internal Evaluation

The internal evaluation shall be based on a predetermined transparent system involving periodic examinations, assignments, seminars and attendance in respect of theory courses and based on lab tests, assignments, viva-voce and lab skill, attendance in respect of practical courses. 20 percent marks shall be given to the internal evaluation, which is conducted as a continuous assessment. The internal assessment marks awarded to the students in each course in a semester shall be notified on the notice board at least one week before the commencement of external examination. The distribution of marks for internal examination components shall be as follows:

Internal Evaluation of Theory Paper

Sl. No.	Components	Percentage	Marks
1	Examinations	40%	8
2	Assignments	20%	4
3	Seminars	20%	4
4	Attendance	20%	4
	Total	100%	20

Internal Evaluation of Practical Paper

Sl. No.	Components	Percentage	Marks
1	Lab tests	40%	8
2	Assignments	20%	4
3	Viva-voce and lab skill	20%	4
4	Attendance	20%	4
	Total	100%	20

External Evaluation

The remaining 80 percent marks shall be for the end semester external evaluation. The external examination in theory courses is to be conducted with question papers set by external examiners. The evaluation of the answer scripts shall be done by the teacher offering the course and an external expert based on a well-defined scheme of valuation.

Dissertation and Viva Voce

Students have to carry out research on a topic approved by the department council, under the guidance of a faculty member and prepare a dissertation. They have to follow research methodology suitable to the area of interest with the approval of the supervisor. The dissertation shall be free from plagiarism. Research ethics shall be followed in every step of the work. The approved style for referencing is APA and appropriate size of the dissertation shall be 100 typed pages in A4 size paper. The students should also appear for a viva-voce. The valuation shall be jointly done by the supervisor of the dissertation in the department and an external expert from the approved panel, based on a well-defined scheme of valuation.

Scheme of Valuation of Dissertations

Sl. No.	Components	Marks
1	Review of literature and formulation of the research problem/objectives	25
2	Methods and description of the techniques used	25
3	Analysis and discussion of results	30
4	Presentation of the report, organization, styling, references, etc.	20
5	Viva voce examination based on the dissertation	20
	Total	120

Internship

Students have to do one month internship in a library approved by the department council during the summer holidays between second and third semesters. The marks have to be awarded based on the performance appraisal report of the librarian of the library where the students have undergone internship and a viva conducted by the department council after the internship. If any student fails to fulfil this requirement, his/ her result will be withheld until the Internship requirement is met.

Study Tour

Students will have to undergo one study tour to visit the most important libraries and information centres across the country. A report of the tour has to be prepared by all students.

Question Paper Pattern

For each course there shall be an external examination of duration 3 hours. Each question paper will consist of three parts- Part-A consisting of ten short answer type questions, each of 2 marks, in which all the questions are to be answered, Part B consisting of Nine short essay type questions, each of 5 marks, in which any six questions are to be answered; Part-C consisting of four essay type questions of 15 marks. The candidate is required to answer two questions. The questions are to be evenly distributed over the entire syllabus within each part.

Instructions to Question Paper Setters

Questions shall be set to assess the knowledge acquired, application of knowledge in new situations, critical evaluation of knowledge and the ability to synthesise knowledge. Due weightage shall be given to each module based on content/teaching hours allotted to each module. It has to be ensured that questions covering all skills are set. The setter shall also submit a detailed scheme of evaluation along with the question paper. A question paper shall be a judicious mix of short answer type, short essay type and long essay type questions.

CCSS Regulations 2019

All matters not mentioned in this document shall be dealt with according to the provisions of the CCSS Regulations 2019 and the amendments thereof issued by the University of Calicut from time to time.

QUESTION PAPER TEMPLATE – THEORY COURSE

Reg. No.....

Name.....

M.Lib.I.Sc. I/II/III/IV SEMESTER DEGREE (CCSS) EXAMINATION MONTH-YEAR
Course Code and Course Title:

(2020 Admission onwards)

Time: Three Hours

Max. Marks: 80

I. Write short notes on the following, each one not exceeding 50 words
(10 x 2= 20 Marks)

- a)
- b)
- c)
- d)
- e)
- f)
- g)
- h)
- i)
- j)

II. Write short essays on any Six of the following, each one not exceeding 200 words
(6 x 5 = 30 Marks)

- a)
- b)
- c)
- d)
- e)
- f)
- g)
- h)
- i)

III. Answer the following, each one not exceeding 1000 words
(2 x 15 = 30 Marks)

- a) Either
- b) Or
- c) Either
- d) Or

Programme Specific Outcomes (PSO) for M.Lib.I.Sc

- PSO1** Understand the Library and Information Science profession as an interdisciplinary field, the role and history of the discipline, its basic concepts, principles, theories and the essential set of core values that define, inform and guide professional practice.
- PSO2** Understand the nature of information in all its formats and processes, the technologies that process it, and human interaction with information and associated technologies.
- PSO3** Understand and apply skills in carrying out professional activities such as acquisition, classification, cataloguing, physical processing of documents, and library housekeeping operations.
- PSO4** Understand Information Communication Technology standards, models, approaches, requirements and solutions for data capture, storage, management, processing, presentation, publishing, access, and use.
- PSO5** Preparing information professionals who will serve as intermediaries between information and information seekers, as well as serve crucial roles in a wide variety of settings with increasingly sophisticated technological tools.
- PSO6** Develop research proficiency in problem-oriented research which analyses the basis of issues encountered in Library and Information Science and attempts to provide possible solutions.
- PSO7** Capacity building of holistic professionals with ingrained ethics and humanistic values, such as professionalism, service, social responsibility, sustainability, education and lifelong learning, and access to information as a public good.

Scheme and Syllabus of MASTER OF LIBRARY AND INFORMATION SCIENCE

Course Code	Course Title	Type	Credits	Marks		
				Internal Evaluation	External Evaluation	Total
First Semester						
LIS1 C01	Library, Information and Society	Core	4	20	80	100
LIS1 C02	Library Management	Core	4	20	80	100
LIS1 C03	Knowledge Organisation Theory	Core	4	20	80	100
LIS1 C04	Knowledge Organisation Practice – Dewey Decimal Classification	Core	4	20	80	100
Total			16	80	320	400
Ability Enhancement Course (AEC)						
LIS1 A01	Soft Skills	Audit	2	(Credits are not counted)		
Second Semester						
LIS2 C05	Information and Communication	Core	4	20	80	100
LIS2 C06	Information Sources	Core	4	20	80	100
LIS2 C07	Information Technology -Theory	Core	4	20	80	100
LIS2 C08	Knowledge Organisation Practice - Cataloguing	Core	4	20	80	100
LIS2 E--	Elective - 1	Elective	4	20	80	100
Total			20	100	400	500
Professional Competency Course (PCC)						
LIS2 A02	Information Technology Competency - Practice	Audit	2	(Credits are not counted)		
One month internship in a library approved by the department council during the summer holidays between second and third semesters.						

Third Semester						
LIS3 C09	Research Methodology	Core	4	20	80	100
LIS3 C10	Information Technology Applications in Libraries-Theory	Core	4	20	80	100
LIS3 C11	Knowledge Organisation Practice – Universal Decimal Classification	Core	4	20	80	100
LIS3 E--	Elective - 2	Elective	4	20	80	100
LIS3 E--	Elective - 3	Elective	4	20	80	100
	Total		20	100	400	500
Fourth Semester						
LIS4 C12	Information Processing and Retrieval	Core	4	20	80	100
LIS4 C13	Information Systems and Services	Core	4	20	80	100
LIS4 C14	Information Technology Applications in Libraries - Practice	Core	4	20	80	100
LIS4 C15	Dissertation	Core	8		120	120
	Viva Voce				40	40
	Internship			40		40
LIS4 E--	Elective - 4	Elective	4	20	80	100
	Total		24	120	480	600
	TOTAL CREDITS		80	400	1600	2000

ELECTIVE COURSES

Course Code	Course Title	Credits	Marks		
			Internal Evaluation	External Evaluation	Total
CLUSTER I					
LIS2 E01	Digital Resources	4	20	80	100
LIS2 E02	Information Literacy	4	20	80	100
CLUSTER II					
LIS3 E03	Statistics and Informetrics	4	20	80	100
LIS3 E04	Knowledge Management	4	20	80	100
LIS3 E05	Digital Libraries	4	20	80	100
LIS3 E06	Organizing Information Resources - Practice	4	20	80	100
CLUSTER III					
LIS4 E07	Technical Communication	4	20	80	100
LIS4 E08	Personality Development & Communication Skills	4	20	80	100

FIRST SEMESTER**LIS1 C01 - LIBRARY, INFORMATION AND SOCIETY****4 Credits****Course Outcome:**

- CO1:** Understand libraries in its social context, its role in modern society, different types of libraries and its developments in India (Understand)
- CO2:** Understand the concept of resource sharing and library networking (Understand)
- CO3:** Understand library legislation and library legislation in India and Kerala (Analyse)
- CO4:** Identify and elaborate the aims and objectives of professional associations engaged in the library and information field and analyse in detail the activities of selected library and information associations within India and outside (Analyse)

Module 1 Library in the Social Context

Library: conceptual change
Role of libraries in modern society and education
Development of libraries in India
Five Laws of Library Science, implications of Five Laws

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the role of libraries in the society and education (Understand)
- MO1:** Get a historical perspective of library developments in India with highlights of some important landmarks (Evaluate)
- MO1:** Make use of the Five Laws as a set of logical principles to initiate any new activity in library, documentation, information work and services (Understand)

Module 2 Types of Libraries

Types of libraries: their distinguishing features and functions
Public libraries, special libraries
Academic libraries: school, college and university libraries
National libraries: UK, USA, USSR
National library of India

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Understand different types of libraries, their distinguishing features and functions (Understand)
- MO2:** Understand the functions and services of national libraries of India, UK, USA and USSR (Understand)

Module 3 Resource Sharing and Extension Services

Resource sharing

Library consortia: ShodhSindhu, FORSA, CeRA

Library extension services, library publicity

Library Networks: OCLC, NICNET, CALIBNET, DELNET, ERNET, INFLIBNET

Library public relations

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand the concept, purpose and services of library resource sharing and extension activities including library consortia, library networks and library public relations (Understand)

Module 4 Library Legislation

Need for library legislation

Essential features of library legislation

Library legislation in India- Model Public Library Bill of

Dr. S. R. Ranganathan

Public library legislation in Kerala

Kerala Public Libraries Act, 1989

Indian Copy Right Act, Delivery of Book and Newspapers Act and the Press and Registration of Books Act

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand the need and essential features of library legislation and Kerala Public Libraries Act, 1989 (Understand)

MO4: Understand the essential features of Indian Copyright Act (Understand)

Module 5 Library and Information Science Profession

Librarianship as a profession

Professional skills and competencies

Professional ethics

Professional associations and their role: IFLA, ILA, IASLIC, IATLIS, CILIP, SLA, ALA, ASLIB

Promotion of library and information services by UNESCO, UGC and RRRLF

Library and Information Science education in India

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand librarianship as a profession, professional competencies and ethical values which enhance quality in professional performance (Understand)

MO5: Understand and elaborate the aims and objectives of professional associations engaged in the library and information field (Analyse)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

Learning Resources

1. Baker, D., & Evans, W. (2011). *Libraries and society: role, responsibility and future in an age of change*. Chandos Publishing.
2. Chowdhury, G. G. (2009). *Librarianship: an introduction*. Facet.
3. Dhiman, A. K. (2008). *A handbook of special libraries and librarianship*. Ess Ess Publication.
4. Dhiman, A. K., & Sinha, S. C. (2002). *Academic libraries*. Ess Ess Publications.
5. Kumar, P.S.G. (2019). *Student's manual of library and information science*. BR Publishing Corporation.
6. MacDougall, A., & Prytherch, R. J. (1997). *Handbook of library cooperation*. Jaico Publication House.
7. Pālacuppiramaṇiyaṅ Pa, & Baladhandayutham, A. (2013). *Manual of library and information science*. Regal Publications.
8. Ranganathan, S. R. (2006). *The five laws of Library science*. Sarada Ranganathan Endowment.
9. Raval, A. (2013). *Handbook of public library system*. New Delhi: Discovery Pub. House.
10. Sahu, N. B., & Chakrabarti, B. (2014). *Library and society: an introduction*. Mitram.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS1 C02 - LIBRARY MANAGEMENT**4 Credits****Course Outcome:**

- CO1:** Articulate and exemplify basic knowledge about concept, functions, and schools of management thoughts (Understand)
- CO2:** Understand different techniques and procedures of library housekeeping operations (Understand)
- CO3:** Understand different management activities related to space management, e-resources management, disaster management, crisis management, etc. (Understand)
- CO4:** Articulate basic knowledge about financial management and record management

Module 1 Management in General

Concept, definition, scope and functions
 Management schools of thought
 Principles of scientific management
 Fayol's principles, POSDCORB, MBO
 Quality management: TQM, Six Sigma

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Describe the concept, functions and management schools of thought and principles of scientific management (Understand)
- MO1:** Gain insight into quality improvement programmes for library and information centres (Apply)

Module 2 Management of Library Operations

Collection development: policies and procedures
 Acquisition procedures: selection, ordering and accessioning
 Technical processing: classification, cataloguing, and physical processing
 Circulation control: charging systems
 Serials control: selection, ordering, receipt and display
 Maintenance of documents: stock verification and shelf rectification, withdrawals, preservation and conservation of library resources
 Project management: SWOT, PEST, PERT/CPM
 MIS, Decision Tables, DFD (Data Flow Diagram)

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Get a good insight into procedures of collection development of information materials and their products (Understand)

MO2: Understand and apply various techniques and procedures for library housekeeping operations and project management techniques (Apply)

Module 3 Library Building and Space Management

Library building, furniture and equipments
 Space requirements and space management
 Green library building, Information Commons, Makers Spaces,
 security and safety
 E-resources management, technology and change management
 Disaster management and crisis management

Module Outcome:

After completion of this module, the student should be able to:

MO3: Describe the concept and planning strategy of library building, furniture, and equipments (Understand)

MO3: Understand and apply the space management to overcome issues related to space in libraries (Apply)

MO3: Understand disaster and crisis management for minimizing the impact of crisis (Understand)

Module 4 Human Resource Management

Planning, job analysis, job description and job evaluation
 Recruitment, selection, induction
 Continuous professional development
 Motivation, training and development
 Performance appraisal
 Stress management and time management

Module Outcome:

After completion of this module, the student should be able to:

MO4: Appreciate and grasp the value of human resource management techniques including job analysis, job description, job evaluation, recruitment and continuous professional development (Understand)

MO4: Understand the concept of stress management and time management and its implementation strategy (Understand)

Module 5 Financial and Record Management

Sources of finance
 Methods of financial estimation
 Budgeting techniques-Line, PPBS, Zero based budgeting
 Cost effective and cost benefit analysis
 Library authority and committee
 Annual report, staff manual, library rules and regulations

Module Outcome:

After completion of this module, the student should be able to:

MO5: Know the sources of finance for libraries and describe the financial estimation methods (Understand)

MO5: Understand budgeting and budgeting techniques in libraries (Apply)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

Learning Resources

1. Balakrishnan, S., & Paliwal, P. K. (2001). *Management of library information services*. Anmol Publications.
2. Bryson, J. (2006). *Managing information services: a transformational approach*. Ashgate.
3. Bryson, J. (2018). *Effective library and information centre management*. Routledge.
4. Evans, G. E., & Greenwell, S. (2020). *Management basics for information professionals*. Facet Publishing.
5. Kishore, J. (2001). *Handbook of library administrations*. Crest Pub. House.
6. Koontz, H. (2012). *Essentials of management*. Tata MacGraw-Hill.
7. Kumar, K. (2005). *Library administration and management*. Vikas Publishing House.
8. Kumar, P. S. G. (2003). *Management of library and information centres*. B.R. Publication.
9. Mittal, R. L. (2007). *Library Administration: Theory and Practice*. Ess Ess Publications.
10. Panwar, B. S., & Vyas, S. D. (1986). *Library management*. B.R. Publication.
11. Stueart, R. D., & Moran, B. B. (2007). *Library and information center management*. Libraries Unlimited.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS1 C03 – KNOWLEDGE ORGANISATION THEORY**4 Credits****Course Outcome:**

- CO1:** The students would be able to understand the concept of Universe of Subjects and different modes of formation of subjects (Understand)
- CO2:** The students would be able to familiarize the enumerative and faceted schemes of library classification (Understand)
- CO3:** Understand the different types of library catalogues, its functions and standards

Module 1 Theory of Library Classification

Universe of knowledge – nature and attributes
 Modes of formation of subjects
 Need and purpose of library classification
 Normative principles of classification and their usefulness
 Canons for idea plane and verbal plane
 Principles of helpful sequence
 Notation: types, qualities

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the nature of universe of knowledge and modes of formation of subjects (Understand)
- MO1:** Explain the Normative Principles for Idea plane and verbal plane in the library classification (Understand)
- MO1:** Describe the principles of helpful sequence in the library classification (Understand)

Module 2 Facet Analysis and Fundamental Categories

Concept of facet analysis
 Fundamental categories
 Principles for facet sequence
 Call No., Class No., Book No., Collection No.

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Describe facet analysis and fundamental categories (Understand)
- MO2:** Understand the principles of facet sequence (Understand)

Module 3 Classification Schemes

Species of library classification schemes
 Enumerative and faceted models
 Salient features of CC, DDC and UDC
 Trends in library classification

Automatic classification, classification in online system
Web Dewey, Folksonomy

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand the enumerative and faceted schemes of classification and analyse features of CC, DDC and UDC (Understand)

MO3: Describes the trends in library classification, automatic and online classification (Understand)

Module 4 Bibliographic Description

Library catalogue : its purpose and functions
Physical forms : book form, card form, OPAC/WebOPAC
Types of catalogue: author catalogue and title catalogue
Dictionary catalogue and classified catalogue
Models of catalogue codes - CCC and AACR-II
Bibliographic description & metadata standards – ISBD, MARC 21
CCF, RDA, FRBR, Bibframe, Dublin Core, METS MODS, EAD
Standards of Bibliographic Information Interchange ISO2709
OAI, Z39.50 and Z39.71

Module Outcome:

After completion of this module, the student should be able to:

MO4: Describe the different physical forms of library catalogues and compare their relative advantages and disadvantages (Understand)

MO4: Define what a bibliographic record format is (Understand)

MO4: Explain the nature of different types of bibliographic formats and describe the structure of them (Apply)

Module 5 Subject Cataloguing, Centralized Cataloguing and Cooperative Cataloguing

Tools for subject cataloguing - LCSH, Sears List of Subject
Headings, authority lists
Subject cataloguing: chain procedure and list of subject headings
Centralised cataloguing: types, advantages and disadvantages
Cooperative cataloguing: NPAC, union catalogues

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand about subject cataloguing, centralised cataloguing and cooperative cataloguing (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

Learning Resources

1. Bavakutty, M. (1981). *Canons of library classification*. Kerala Library Association.
2. Bowman, J. H. (2008). *Essential cataloguing*. Facet.
3. Foskett, A. C. (2012). *The subject approach to information*. Facet.
4. Foulonneau, M., & Riley, J. (2014). *Metadata for Digital Resources: Implementation, Systems Design and Interoperability*. Elsevier Science.
5. Husain, S. (2004). *Library classification: facets and analyses*. B.R. Publishing Corporation.
6. Kaula, P. N. (1985). *A treatise on colon classification: appended with a select bibliography on the scheme*. Sterling Publishers.
7. Kumar, G., & Kumar, K. (1986). *Theory of cataloguing*. Vikas Publishing House.
8. Kumar, K. (2003). *Theory of classification*. Vikas Publishing House.
9. Kumbhar, R. (2012). *Library classification trends in the 21st century*. Chandos.
10. Ranganathan, S. R. (1962). *Elements of library classification*. Asia Pub. House.
11. Ranganathan, S. R. (2006). *Philosophy of library classification*. Ess Ess Publications.
12. Ranganathan, S. R. (2006). *Prolegomena to library classification*. Sarada Ranganathan Endowment.
13. Sangma, S. K. (2013). *Cataloguing rules in library science*. Centrum Press.
14. Śarma Sūraja Kānta. (1979). *Dewey decimal classification for Indology: expansion and modification of Dewey decimal classification (18) for classifying Indological books with special reference to Indian philosophy and Indian religions*. Uppal Publishing House.
15. Satija, M. P. (2013). *The theory and practice of the Dewey Decimal Classification system*. Chandos Publication.
16. Satija, M. P., & Comaromi, J. P. (1990). *Introduction to the practice of Dewey Decimal Classification*. Envoy Press.
17. Taylor, A. G., Wynar, B. S., & Miller, D. P. (2004). *Wynar's introduction to cataloging and classification*. Libraries Unlimited.
18. Welsh, A., & Batley, S. (2012). *Practical cataloguing: Aacr, Rda and MARC21*. Facet.

Codes / Standards

1. Anglo-American Cataloguing Rules II (most recent edition to be used)
2. Bristow, B. A., Farrar, C. S., & Sears, M. E. (2014). *Sears list of subject headings* (21st ed.). H.W. Wilson.
3. MARC 21 and related standards for bibliographic records
4. OCLC (2002). *Bibliographic formats and standards* (3rd ed.)
5. Ranganathan, S.R. (1964). *Classified catalogue code* (5th ed.). Asia Publishing House.

Assessment

- 20 percent continuous / formative assessment
- 80 percent end-semester/summative assessment: 3 hour written exam

**LIS1 C04 – KNOWLEDGE ORGANISATION PRACTICE – DEWEY
DECIMAL CLASSIFICATION****4 Credits****Course Outcome:**

CO1: The students would be able to classify simple and complex subjects with DDC (23rd Ed.) (Understand)

Module 1 Dewey Decimal Classification: Basic Subjects

Familiarization of main classes, subdivisions and relative index, classification of simple specific subjects

Module Outcome:

After completion of this module, the student should be able to:

MO1: Describe the main classes of DDC (Understand)

MO1: Analyse the subdivisions and relative index of DDC (Analyse)

MO1: Classify the simple specific subjects with DDC (Apply)

Module 2 Dewey Decimal Classification: Compound and Complex Subjects

Complicated titles by applying schedules, tables and 'add.....' instructions in the Dewey Decimal Classification (23rd ed.)

Module Outcome:

After completion of this module, the student should be able to:

MO2: Analyse and classify complex subjects with DDC (Analyse)

MO2: Classify titles by applying schedules, tables and 'add...' instructions (Apply)

Module 3 Record of Term Work: DDC

Classification of not less than 75 documents, indicating the steps followed.

Module Outcome:

After completion of this module, the student should be able to:

MO3: Prepare a record of term work of classification (Create)

MO3: Classify the documents by following the steps (Classify)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Discussions
- Tutorials
- Practical

Learning Resources

1. Chan, L. M., Comaromi, J. P., Mitchell, J. S., & Satija, M. P. (1996), *Dewey Decimal classification: A practical guide*. Albany: Forest Press.
2. Dewey, M., & Beall, J. (2019), *Dewey decimal classification*: Dublin, Ohio: OCLC Online Computer Library Center, Inc.
3. Dewey, M., In Fox, V. B., In Kyrios, A., & OCLC. (2020), *Dewey decimal classification*. Dublin, Ohio : OCLC, Inc.
4. Dewey, M., Mitchell, J. S., Beall, J., Green, R., Martin, G., & Panzer, M. (2011), *Dewey decimal classification and relative index*.
5. Kumar, P. S. G. (2010), *Practical guide to Colon classification*, edition-6. Agra: Associated Pub. House.
6. Raju, A. A. N. (2001), *Colon Classification: Theory and practice: A self-instructional manual*. New Delhi: Ess Ess Publications.
7. Ranganathan, S. R. (2006), *Colon classification*. New Delhi: Ess Ess Publications.
8. Sagar, R. (2003), *New concepts of practical colon classification*. New Delhi: EssEss Publications.
9. Satija, M. P. (2011), *A guide to the theory and practice of colon classification*. New Delhi: Ess Ess Publications.
10. Satija, M. P. (2013), *The theory and practice of the Dewey Decimal Classification system*. Oxford: Chandos Pub.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour practical exam

SECOND SEMESTER

LIS2 C05 - INFORMATION AND COMMUNICATION

4 Credits

Course Outcome:

- CO1:** Articulate and exemplify basic knowledge about communication, channels of communication, barriers of communication and models of communication (Understand)
- CO2:** Understand the development of information science as a discipline
- CO3:** Enunciating the Information society and information industry
- CO4:** Articulate basic knowledge about information and knowledge management
- CO5:** Understand the methods of user studies and pattern of user behaviour

Module 1 Information and Communication

Information: characteristics, nature, value and uses
 Conceptual difference between data, information, knowledge and wisdom
 Information life cycle – generation, collection, storage and dissemination
 Role of information in planning, management, socio-economic, cultural, educational and technological development
 Communication: channels – formal and informal
 Communication models; communication barriers
 Trends in scholarly communication

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Differentiate between data, information and knowledge (Understand)
- MO1:** Describe the characteristics, nature, value and uses of information (Understand)
- MO1:** Understand the channels and models of communication (Understand)

Module 2 Information Science

Genesis, development, definitions and scope
 Information Science as a discipline and its relationship with other subjects
 National Knowledge Commission
 National Mission on Libraries

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Describe the genesis and development of Information Science and its relationship with other subjects (Understand)
- MO2:** Explain the NKC and National Mission on Libraries (Understand)

Module 3 Information Society

Information society: genesis and characteristics
Intellectual Property Rights: IPR legislations in India
Fair use provision in copyright; censorship, data security
Right to Information Act (RTI), Information Technology Act
National policy of information
Open access movement

Module Outcome:

After completion of this module, the student should be able to:

MO3: Describe the genesis and characteristics of information society (Understand)

MO3: Explain the IP Acts, RTI, fair use provision, data security, national policy of information, OA movement (Understand)

Module 4 Economics of Information

Information industry-categories, conventions, treaties, laws
Information audit; marketing of information services and products
Knowledge management: types of knowledge
Knowledge management procedures
Role of library professionals in knowledge management

Module Outcome:

After completion of this module, the student should be able to:

MO4: Describe the Information industry and information audit (Understand)

MO4: Describe the concept of knowledge management and the role of library professionals on KM (Understand)

Module 5 Sociology of Information

User studies and user behaviour
Methods of data collection
Patterns of user behaviour
Information behaviour models

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand user studies and explain user behaviour and information behaviour models (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Andal, N. (2005), *Communication theories and models*. Mumbai: Himalaya Publishing House.
2. Bawden, David and Robinson, Lyn. (2012) *Introduction to Information Science*. London: Facet Publishing
3. Case, Donald O. (2007), *Looking for information: a survey of research on information seeking, needs and behaviour*. 2nd ed. Amsterdam: Academic Press.
4. Feather, John. (2008), *The information society: a study of continuity and change*. 5th ed. London: Facet Publishing.
5. Mc Garry, K. J. (1975), *Communication, knowledge and librarian*. London: Clive Bingley.
6. Mc Garry, K. J. (1993), *Changing context of information: an introductory analysis*. 2nd ed. London: Library Association.
7. Mc Quail, Denis and Windahl, Sven. (1981), *Communication models for the study of mass communications*. London: Longman.
8. Meadows, A. J., ed. (1991), *Knowledge and communication: essays on the information chain*. London: Library Association.
9. Norton, Melanie J. (2008), *Introductory concepts in Information Science*. New Jersey: Information Today.
10. Vickery, Brian C. and Vickery, Alina. (2004), *Information Science in theory and practice*. 3rd ed. Munchen: K. G. Saur.

Assessment

20 percent continuous/formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS2 C06 - INFORMATION SOURCES**4 Credits****Course Outcome:**

- CO1:** Articulate and exemplify basic knowledge about primary, secondary and tertiary sources (Understand)
CO2: Articulate basic knowledge about electronic resources (Understand)
CO3: Develop skill for searching, retrieving and evaluating various information source
CO4: Evaluating the different reference sources along with their recent trends

Module 1 Introduction to Information Sources

Nature, evolution, characteristics of information sources
 Sources of information-primary, secondary and tertiary sources
 Documentary and non-documentary sources
 Print and non-print sources

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Describe the evolution of physical media (Understand)
MO1: Explain the classification of information sources (Understand)

Module 2 Primary Sources

Periodicals and e-journals
 Patents, technical reports, specification, standards
 Research reports, theses and dissertations
 Conference proceedings, trade literature

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Understand and evaluate different primary sources (Understand)

Module 3 Secondary and Tertiary Sources

Indexing, abstracting and reviewing periodicals
 Dictionaries and encyclopaedias
 Bibliographical, biographical and geographical sources
 Statistical sources, handbooks and manuals
 Directories, yearbooks and almanacs
 Union catalogues, Guides to literature
 Bibliography of bibliographies

Module Outcome:

After completion of this module, the student should be able to:

MO2: Understand and evaluate different secondary and tertiary sources (Understand)

Module 4 Electronic Sources

Databases and multimedia sources
Bibliographic, numeric, full text, open access databases
Search tools and techniques
Institutional and human resources
BIOSIS, PubMed
EBSCO, ProQuest, Elsevier, Ingenta, J-Gate

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand and evaluate different types of electronic Information sources (Understand)

MO4: Describe different search tools and techniques (Understand)

Module 5 Project

Evaluation of not less than 25 print reference sources and 25 electronic sources of different kinds

Module Outcome:

After completion of this module, the student should be able to:

MO5: Examine the different reference sources along with their recent trends (Evaluate)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Project evaluation

Learning Resources

1. Bopp, Richard E. and Smith, Linda C. (2011), *Reference and information services: An introduction*, 4th ed., Libraries Unlimited.
2. Cassel, Kay Ann and Hiremath, Uma. (2013), *Reference and information services: An introduction*, 3rd ed., London: Facet Publishing.
3. Gurdev Singh. (2013), *Information Sources, Services and Systems*. New Delhi: PHI Learning.
4. Hurt, C. D. (1998), *Information Sources in Science and Technology*. 3rd ed. Westport, Conn.: Libraries Unlimited.
5. Katz, William A. (1997) *Introduction to reference work*, 7th ed. New York: McGraw Hill.
6. Krishan Kumar. (2004), *Reference service*, 5th ed. New Delhi: Vikas Publishing House.
7. Ranganathan, S. R.(1961), *Reference Service*. 2nd ed. Bombay: Asia Pub. House.
8. Santa Barbara. (2005), *Evaluate information sources.*: Libraries Unlimited.
9. Sewa Singh. (2004), *Manual of reference and information sources*. New Delhi: B R. Publishing.
10. Webb, William H. et al (1986), *Sources of information with social sciences*. 3rd ed. Chicago: ALA.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS2 C07 – INFORMATION TECHNOLOGY THEORY**4 Credits****Course Outcomes:**

- CO1:** Develop a thorough understanding of the architecture of computer, types of software, various operating systems and programming languages, database and database management systems (Understand)
- CO2:** Understand the fundamentals of telecommunication technology, media, nature and components of networking devices, computer network types and LAN topologies (Understand)
- CO3:** Understand the Internet connectivity, protocols, search engines, and web 2.0/3.0.
- CO4:** Describe the societal Impacts of Information Technology with regard to the privacy, security and integrity of information (Understand)

Module 1 Computer: Architecture and Technology

Introduction to Information Technology
 Computer hardware, software and storage devices
 Types of software: system software and application software
 Operating system-Windows and Linux
 Programming languages –object oriented, procedural, high level, scripting, web languages

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Describe the architecture of computer and the types of software (Understand)
- MO1:** Explain various operating systems and programming languages (Understand)

Module 2 Data Processing

File design, data files, records
 File organization: serial, sequential, direct access, indexed sequential and random access file organization
 Database: concepts, organization and types
 Database Management System (DBMS) - Architecture

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Describe file design and various file organisation methods (Understand)
- MO2:** Explain database concepts and DBMS architecture (Understand)

Module 3 Computer Networks and Networking

Computer networks - definition and examples

Network media-UTP, Optical fiber, Ethernet, Network Interface

Cards, Hubs, Routers, Gateway, ISDN, PSDN

Network types PAN, LAN, MAN, CAN, WAN, SAN

LAN topologies: bus, star, ring, tree, mesh and token ring networks

Wireless Network: WiFi, WiMAX, Bluetooth, LiFi

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand computer networks, wireless networks, network media, network types, and LAN topologies (Understand)

Module 4 Internet

History and development of the Internet

Internet protocols and standards-HTTP, SHTTP, FTP, SMTP, TCP/IP

Internet applications/services/utilities

Search engines and metasearch engines

Web 2.0/3.0 technologies, Social Media, Semantic Web, Invisible

Web, Internet of Things (IoT), Ontology

Module Outcome:

After completion of this module, the student should be able to:

MO4: Describe the history and development of the Internet (Understand)

MO4: Describe the Internet connectivity, protocols, search engines, Web 2.0/3.0 (Understand)

MO4: Explain Internet of Things, Semantic Web, and ontology (Understand)

Module 5 Societal Impacts of Information Technology

Privacy, security and integrity of information

Computer security, cyber security and cyber crimes

Firewall, proxy server, and cryptographic techniques

The Information Technology Act, 2000

Module Outcome:

After completion of this module, the student should be able to:

MO5: Describe the societal impacts of information technology with regard to the privacy, security and integrity of information (Understand)

MO5: Understand the Information Technology Act, 2000(Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Demonstration

Learning Resources

1. Arthur, L. J. & Burns, T. (1994). *UNIX shell programming* (3rd ed). New York: Wiley.
2. Blum, R. (2007). *Professional Linux programming*. John Wiley & Sons.
3. Borgman, C. L. (2015). *Big data, little data, no data: Scholarship in the networked world*. MIT press.
4. Date, C. J. (1987). *A guide to the SQL standard: A user's guide to the standard relational language SQL*. Addison-Wesley Longman Publishing Co., Inc.
5. Date, C. J. (1999). *An introduction to database systems* (7th ed.). MA, USA: Addison-Wesley Longman.
6. Elmasri, R., & Navathe, S. B. (2011). *Fundamentals of database systems* (6th ed.). Boston: Pearson/Addison-Wesley.
7. Godbole, A. & Atul Kahate (2013). *Web technologies: TCP/IP, Web/Java programming, and cloud computing* (3rd ed.). McGraw-Hill.
8. Gosselin, D., Guthrie, R., Lopez, L. A., Sklar, J., Slaybaugh, M., & Soe, L. (2003). *The web warrior guide to web design technologies*. Course Technology.
9. Haravu, L. J. (2007). *Library automation design principles and practice*. New Delhi: Allied Publishers.
10. Hennig, N. (2017). *Keeping up with emerging technologies: Best practices for information professionals*. Santa Barbara, CA: Libraries Unlimited.
11. Joiner, I. A. (2018). *Emerging library technologies: It's not just for Geeks*. Chandos Publishing.
12. Mathew, Neil et al. (2000). *Professional Linux programming*. Apress.
13. Michael, R. K. (2003). *Mastering UNIX shell scripting*. Wiley.
14. Petersen, R. (2007). *Linux: The complete reference*. Tata McGraw-Hill Education.
15. Williams, B. K., Sawyer, S. C., & Hutchinson, S. E. (1999). *Using information technology: A practical introduction to computers and communications* (3rd ed.). New Delhi: Tata McGraw-Hill.

Assessment

- 20 percent continuous / formative assessment
- 80 percent end-semester/summative assessment: 3 hour written exam

**LIS2 C08 – KNOWLEDGE ORGANISATION PRACTICE -
CATALOGUING****4 Credits****Course Outcome:**

- CO1:** Familiarize with the practical awareness about cataloguing (Understand)
O2: Impart skills in cataloguing documents with AACR II
CO3: Experiment the process involved in cataloguing

Module 1 Cataloguing of single authored and joint authored books**Module Outcome:**

After completion of this module, the student should be able to:

- MO1:** Articulate and exemplify the preparation of bibliographic description of books, periodical publications and e-resources as per AACR2 (Understand)
MO1: Involve in cataloguing of single authored and joint authored books (Analyse)

Module 2 Cataloguing of edited books, multi volume books, and pseudonymous authors**Module Outcome:**

After completion of this module, the student should be able to:

- MO2:** Involve in cataloguing of edited books, multi volume books, and pseudonymous authors (Analyse)

Module 3 Cataloguing of uniform titles and serial publications**Module Outcome:**

After completion of this module, the student should be able to:

- MO3:** Involve in cataloguing of uniform titles and serial publications (Analyse)

Module 4 Cataloguing of works of corporate authors: Govt. publications, institutional publications, society publications, conference/ seminar proceedings, workshop materials**Module Outcome:**

After completion of this module, the student should be able to:

- MO4:** Involve in cataloguing of works of corporate authors: Govt. publications, institutional publications, society (Analyse)

Module 5 Cataloguing of non book materials: cartographic materials, films, CDs/DVDs

Module Outcome:

After completion of this module, the student should be able to:

MO5: Involve in cataloguing of non book materials: cartographic materials, films, CDs/DVDs (Analyse)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Discussions
- Practical

Learning Resources

1. Chan, L. M. (2007). *Cataloging and classification: An introduction* (3rd ed.). New York: Scarecrow Press.
2. Gorman, M., & Winkler, P. W. (Eds.). (1988). *Anglo-American cataloguing rules* (2nd ed.). Ottawa: Canadian Library Association.
3. Ranganathan, S. R. (1938). *Theory of library catalogue*. Madras Library Association, Madras.
4. Ranganathan, S. R., & Neelameghan, A. (2006). *Classified catalogue code: With additional rules for dictionary catalogue code*. New Delhi: Ess Ess Pub.
5. Ranganathan, S.R. (1990). *Cataloguing practice* (2nd ed.). Bangalore: Sarada Ranganathan Endowment for Library Science.
6. Sears, M. E. (2018). *Sears list of subject headings* (22nd ed.). HW Wilson.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour practical exam

THIRD SEMESTER

LIS3 C09 - RESEARCH METHODOLOGY

4 Credits

Course Outcomes:

- CO1:** Develop research skills in students
- CO2:** Understand the research design and methods for conducting research (Understand)
- CO3:** Familiarize the art and style of writing a research report (Understand)
- CO4:** Acquaintance with intensive techniques and skills of research process

Module 1 Research

Concept, meaning, need and functions of research
Types of research-fundamental, applied including Inter-disciplinary and multi-disciplinary approach
Ethical aspects of research

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the concept, need and types of research (Understand)
- MO1:** Understand the ethical aspects of research (Understand)

Module 2 Research Design

Types of research design
Identification and formulation of research problem
Literature search: print, non-print and electronic sources
Review of related literature
Hypothesis: formulation, types and testing

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Familiarize with research design (Understand)
- MO2:** Understand the research problem, literature search and hypothesis (Understand)

Module 3 Research Methods

Scientific method, Historical method, Descriptive method
Survey method, Case study method, Experimental method
Delphi method, Brainstorming method

Module Outcome:

After completion of this module, the student should be able to:

MO3:Familiarize with different research methods (Understand)

Module 4 Research Techniques and Tools

Questionnaire

Interview

Observation

Scales and scaling techniques

Online research tools

Sample and sampling techniques

Module Outcome:

After completion of this module, the student should be able to:

MO4:Evaluate the various tools used in data collection (Understand)

MO4:Understand the sample and sampling techniques (Understand)

Module 5 Data Analysis, Interpretation and Report Writing

Processing data: editing, coding and analyzing data

Descriptive and inferential data analysis

Presentation of data- tables and graphs

Techniques of interpretation

Structure, style and contents of research report

Style manuals- APA and MLA

E-citation and reference management tools – Zotero, EndNote

How to avoid plagiarism- best practices and methods

Trends in Library and Information Science research

Module Outcome:

After completion of this module, the student should be able to:

MO5:Understand the preparation of data for analysis (Understand)

MO5:Evaluate the structure and guidelines for research reporting (Understand)

MO5:Understand reference management software (Understand)

MO5:Understand the current trends in Library and Information Science research (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: New vistas for qualitative research*. London: sage.
2. Busha, C. H., & Harter, S. P. (1980). *Research methods in librarianship: Techniques and interpretation*. Academic press.
3. Busha, C. T. & Harter, S. P. (1980). *Research methods in librarianship*. New York: Academic Press.
4. Connaway, L. S., & Powell, R. R. (2010). *Basic research methods for librarians*. ABC-CLIO.
5. De Leeuw, E. D., Hox, J. J., & Dillman, D. A. (2008). *In the international handbook of survey methodology*. Routledge.
6. Greenfield, T. (1996). *Research methods: Guidance for postgraduates*. London; Toronto: Arnold; Wiley.
7. Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
8. Krishan Kumar (1999). *Research methods in library and information science*. (Rev. ed.). New Delhi: Har-Anand Publications.
9. Kumar, P S G. (2004). *Research methods and statistical techniques*. New Delhi: B. R. Publications.
10. Line, M. B. (1967). *Library Surveys: An Introduction to their use, planning procedure and presentation*. London: Clive Bingley.
11. Martyn, J., & Lancaster, F. W. (1981). *Investigative methods in library and information science*. Arlington, VA: Information resources press.
12. Powell, R. R. & Silipigni, C. L. (2004). *Basic research methods for librarians*. (4th ed.). Westport: Libraries Unlimited.
13. Slater, M. (1990). *Research methods in library and information studies*. London: Library Association.
14. Trochim, W. M.K. (2003). *Research Methods* (2nd ed.). New Delhi: Biztantra.
15. Williamson, K. (2002). *Research methods for students, academics and professionals: Information management and systems*. Elsevier.
16. Young, P.V. (1939). *Scientific social surveys and research*. New York: Prentice-Hall.

Assessment

20 percent continuous / formative assessment
80 percent end-semester/summative assessment: 3 hour written exam

LIS3 C10 – INFORMATION TECHNOLOGY APPLICATIONS IN LIBRARIES- THEORY**4 Credits****Course Outcomes:**

- CO1:** Understand the need, planning and implementation of library automation, and automated in-house library operations with library management software(Understand)
- CO2:** Understand the design and development of digital libraries and institutional repositories (Understand)
- CO3:** To discuss the adoption of various emerging technologies in libraries and information centres

Module 1 Library Automation

Need for library automation
 Areas of library automation
 Automation of library housekeeping operations
 Selection of hardware and software for automation
 Integrated library management systems: Koha
 OPAC/WebOPAC, Webscale Discovery Services

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the need and areas of library automation (Understand)
MO1: Learn the selection of hardware and software for library automation (Understand)

Module 2 Digital Libraries

Digital library: definition, scope and characteristics
 Major digital library initiatives in the world and in India
 Digital library technologies-digital representation and compression
 Identification of, accessing, processing, storage, delivery and use of digital resources
 Digital library creation - prerequisites; content development
 Metadata development; and search options
 Open source digital library software – GSDL

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Understand the concept and characteristics of digital libraries (Understand)
MO2: Learn the major digital library initiative in the world and in

India(Understand)

MO2: Understand the creation of digital libraries, its prerequisites and digital library technologies (Understand)

Module 3 Institutional Repositories

Institutional repositories-concepts, characteristics and purpose

Institutional repositories in India

Design and architecture of institutional repositories

Contents and standards of institutional repositories

Institutional repository software – DSpace, EPrints, Fedora

ROAR, DOAR, SHARPA-ROMIO

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand the concept, characteristics, design and architecture of institutional repositories (Understand)

MO3: Evaluate different institutional repository software (Evaluate)

Module 4 RFID in Libraries

RFID-characteristics and features

RFID components; how does RFID works

Application of RFID in libraries

Barcode, QR Code, Biometric, Smartcards: features and applications

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand the characteristics, features and components of RFID (Understand)

MO4: Learn the application of RFID in libraries (Understand)

Module 5 Application of Emerging Technologies in Libraries

Library 2.0/3.0

Application of Artificial Intelligence, Expert Systems, Robotics,

Machine Learning, Block Chain technology, Cloud computing,

Virtual Reality and Augmented Reality in libraries

Role of libraries in Research Data Management

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand the application of emerging technologies like artificial intelligence, expert systems, robotics, machine learning, block chain technology, cloud computing, virtual reality and augmented reality in libraries (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Demonstration

Learning Resources

1. Arms, William Y. (2000). *Digital libraries*. Cambridge, London: MIT Press.
2. Ayo, C. K. (2001). *Information technology: Trends and applications in science and business*. Lagos: Concept Publications Limited.
3. Cohn, John M. (2001). *Planning for integrated systems and technologies: A how to-do-it manual for librarians*. New York: Neal-Schuman.
4. Cooper, M. D. (1996). *Design of library automation systems: File structures, data structures, and tools*. New York: John Wiley & Sons
5. Dickson, G. W., & DeSanctis, G. (2000). *Information technology and the future enterprise: New models for managers*. Prentice Hall.
6. Gallimore, A. (1997). *Developing an IT strategy for your library*. Library Assn Pub Limited.
7. Kimber, R. T., & Boyd, A. H. (1974). *Automation in libraries*. Oxford, New York: Pergamon Press.
8. Lesk, M. (1997). *Practical digital libraries: Books, bytes, and bucks*. Morgan Kaufmann.
9. Ramana, P. V. (2004). *Information technology applications in libraries*. Ess Ess Publications.
10. Ravichandra Rao, I. K. (1990). *Library automation*. New Delhi: Wiley Eastern.
11. Rowley, Jennifer. (1998). *The electronic library*. London: Library Association Publishing.
12. Williams, Brian K., & Sawyer, Stacey C. (2014). *Using information technology: A practical introduction to computers & communications* (11th ed.). McGraw-Hill.

Assessment

20 percent continuous / formative assessment
80 percent end-semester/summative assessment: 3 hour written exam

LIS3 C11 – KNOWLEDGE ORGANISATION PRACTICE - UNIVERSAL DECIMAL CLASSIFICATION 4 Credits

Course Outcomes:

CO1: Practical awareness of document classification (Understand)

CO2: Application of subject classification based on UDC (Understand)

Module Classification of simple, compound and complex subject books and periodicals according to standard edition of UDC.

Module Outcome:

After completion of this module, the student should be able to:

MO: Describe the Universal Decimal Classification (Understand)

MO: Classify simple and complicated specific subjects (Apply)

MO: Explain Common and Special auxiliaries (Understand)

MO: Solve the titles not less than 75 documents in UDC (Apply)

MO: Determine book numbers have to be derived from the name of author(s)
(Apply)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Record of term work
- Practical

Learning Resources

1. Fosket, A. C. (1973). *Universal Decimal Classification: The history, present status and future prospects of a large general classification scheme*. London, Bingley.
2. McIlwaine, I. C. (2007). *The Universal Decimal Classification: A guide to its use*. The Hague, Netherlands: UDC Consortium
3. *Universal Decimal Classification* (Latest Edition). London: British Standards Institution.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour practical exam

FOURTH SEMESTER

LIS4 C12 -INFORMATION PROCESSING AND RETRIEVAL

4 Credits

Course Outcome:

- C01:** The students would be able to understand information retrieval system
- C02:** The students would be able to understand different types of indexing systems
- C03:** The students would be able to understand information retrieval models and evaluation of information retrieval system
- C04:** The students would be able to understand concepts and applications of natural language processing
- C05:** The students would be able to search information through web-based information retrieval systems

Module 1 Information Retrieval Systems

Information retrieval systems - purpose, functions and components
Shannon & Weaver model
Online search strategy

Module Outcome:

After completion of this module, the student should be able to:

MO1: Understand the basic concepts and components of IR (Understand)

Module 2 Subject Indexing

Pre-coordinate and post-coordinate indexing systems
Thesaurus, uniterm indexing, keyword indexing, citation indexing, automatic indexing

Module Outcome:

After completion of this module, the student should be able to:

MO2: Describe different types of indexing systems and techniques (Understand)

Module 3 Information Retrieval Models

IR models: Boolean, probabilistic and vector processing models
Bayesian network model; structured text retrieval models
Evaluation of information retrieval systems - ASLIB and Cranfield study, MEDLARS study, SMART and TREC

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand different information retrieval models and evaluation of information retrieval systems (Understand)

MO3: Examine steps for evaluation of information retrieval system and evaluation projects like Aslib Cranfield, MEDLARS, SMART and TREC

Module 4 Natural Language Processing (NLP)

Concept of NLP

Application of NLP in IRS

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand the concept, meaning and applications of NLP (Understand)

Module 5 Web-based Information Retrieval Systems

Web-based information retrieval

Web search through search engines, metasearch engines, web indexes, and advanced search techniques

Keyword search, Boolean operators, proximity search, phrase search, field searching, concept searching, wild card search, truncation, searching of databases, catalogues, etc

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand web based information retrieval systems (Understand)

MO5: Understand search methods and techniques in a web based environment (Understand)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions
- Tutorials

Learning Resources

1. Balakrishnan, S., & Paliwal P. K. (2001). *Principles of information retrieval*. New Delhi: Anmol Publications.
2. Balasubramanian, P., & Vasanthakumar N. (2015). *Information processing and retrieval: In library and information science*. New Delhi: Regal Publications.
3. Chowdhury, G. G. (2010). *Introduction to Modern information retrieval* (3rd ed.). London: Facet publishing.
4. Chowdhury, G. G., & Chowdhury, S. (2007). *Organizing information: From the shelf to the web*. London: Facet Publishing.
5. Date, C.J. (1999). *An introduction to database systems*. MA, United States: Addison-Wesley.
6. Dhawan, K.S. (1997). *Principles of information retrieval*. New Delhi: Commonwealth Publishers.
7. Korfhage, Robert R. (1997). *Information storage and retrieval*. New York: John Wiley & sons Inc.
8. Kumar, P S G (2003). *Knowledge organization, information processing and retrieval practice*. B. R. Publishing Corporation.
9. Lancaster, F W. (1979). *Information retrieval systems: Characteristics, testing and evaluation* (2nd ed.). New York: Wiley.
10. Richardo, B.Y. (1999). *Modern information retrieval*. Delhi: Pearson Education.
11. Satyanarayana, N.R. (2016). *An introduction to information processing and retrieval: For library and information professionals*. New Delhi: ESS ESS publication.
12. Sharma, C. K., & Sharma, A. K. (2007). *Information process and retrieval*. Atlantic Publishers.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS4 C13 – INFORMATION SYSTEMS AND SERVICES**4 Credits****Course Outcome:**

- CO1:** The students would be able to understand different products and services provided by libraries (Understand)
- CO2:** The students would be able to describe global and national information systems and networks (Understand)
- CO3:** The students would be able to explain the importance of information system in technology transfer and national development (Understand)
- CO4:** The students would be able to describe personalised services provided by library
- CO5:** The students would be able to understand the concept of user studies and user education (Understand)

Module 1 Information Products and Services

Concept, need and trends of information services
 Concept and types of reference services
 Reference interview and search techniques
 Need, techniques and evaluation of alerting services-CAS
 Referral service

Module Outcome:

After completion of this module, the student should be able to:

MO1: Explain the concept, trends and types of information services (Understand)

Module 2 Information System

Concept, characteristics, components and types of information systems
 Role of information system in technology transfer and national development
 Global information systems and networks - BIOSIS, AGRIS, ERIC, INIS, PIS, BIT, INSPEC, MEDLINE, OCLC, JANET, PubMed
 National information systems and networks-NISCAIR, NASSDOC, DESIDOC, SENDOC, INFLIBNET, DELNET, NICNET, ERNET, NKN

Module Outcome:

After completion of this module, the student should be able to:

MO2: Evaluate the services provided by various information systems (Understand)

MO2: Understand different types of national and global information systems and networks (Understand)

MO2: Understand the role of information systems in knowledge transfer (Understand)

Module 3 Personalized Information Services

Indexing and abstracting services
Document Delivery Services
Translation services
Cloud based library services
Mobile based library services

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand the personalised information services provided by libraries (Understand)

MO3: Describe the cloud and mobile based library services (Understand)

Module 4 Information Users and their Needs

Categories of information users
Information needs: definition and types
Information seeking behaviour
User studies-methods, techniques and evaluation

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand information needs of different categories of users and techniques of user studies (Understand)

Module 5 User Education

Goals and objectives
Techniques and methods
User education in electronic environment
Information literacy: areas, standards, types and models
Trends in information literacy

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand the importance and techniques of user education (Understand)

MO5: Understand the areas, models and trends of information literacy (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Bopp, R. E., & Smith, L. C. (2011). *Reference and information services: An introduction* (4th ed). Englewood: Libraries Unlimited.
2. Cassell, K. A. & Uma H. (2013). *Reference and Information Services: An introduction* (3rd ed.). Chicago: ALA.
3. Devarajan, G. (1995). *Library Information Users and Use Studies*. New Delhi: Beacon books.
4. Dhiman, A. K., & Rani, Y. (2005). *Learn information and reference sources and services*. New Delhi: Ess Ess Publications.
5. Guha, B. (1983). *Documentation and Information Services, Techniques and Systems*. Calcutta: world Press.
6. Hurt, C.D. (1998). *Information Sources in Science and Technology* (3rd ed.). Westport Conn.: Libraries Unlimited.
7. Katz, W. A. (1986). *Reference and information services: A reader for the nineties*. London: Scarecrow Press.
8. Kawatra, P. S. (1992). *Library User Studies: A Manual for Librarians and Information Scientists*. New Delhi: Jaico Publishing House.
9. Khanna J.K. (1996). *Handbook of library and information systems and services*. New Delhi: Beacon books.
10. Kumar, K. (2004). *Reference Service*, (5th ed.). New Delhi: Vikas Publishing House.
11. Kumar, P. S.G. (2004). *Library and Users: Theory and Practice*. New Delhi: B.R. Publishing Corporation.
12. Rastogi, K.G. (2006). *Reference services in Library Science*. New Delhi: Alfa Publications.
13. Satyanarayana, N. R. (ed.). (1988). *User Education in Academic Libraries*. New Delhi: Ess Ess Publications.
14. Singh, G. (2013). *Information Sources, Services and Systems*. New Delhi: PHI Learning.
15. Stebbins, L. F. (2005). *Student guide to research in the digital age: how to locate and evaluate information sources*. Santa Barbara: Libraries Unlimited.
16. Valecich, J. (2009). *Information systems today: Managing the digital world*. New Delhi: PHI.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS4 C14 – INFORMATION TECHNOLOGY APPLICATIONS IN LIBRARIES – PRACTICE**4 Credits****Course Outcome:**

- CO1:** The students would be able to acquire skills for installation, customization and use of Koha Library Management Software, GSDL and DSpace digital library/institutional repository software
- CO2:** The students would be able to achieve practical knowledge to design and develop library websites/portals
- CO3:** The students would be able to acquire practical knowledge in SPSS, Zotero and EndNote reference management software

Module 1 Library automation package – Koha**Module Outcome:**

After completion of this module, the student should be able to:

MO1: To install, customize and use Koha Library Management Software

Module 2 Digital Library/Institutional Repository software – Greenstone/DSpace**Module Outcome:**

After completion of this module, the student should be able to:

MO2: To install, customize and use digital library/Institutional repository with GSDL and DSpace

Module 3 Library website / portal design**Module Outcome:**

After completion of this module, the student should be able to:

MO3: Design and develop library websites/portals

Module 4 Statistical Package-SPSS**Module Outcome:**

After completion of this module, the student should be able to:

MO4: Understand and use SPSS for data analysis

Module 5 Reference management software -- Zotero; EndNote**Module Outcome:**

After completion of this module, the student should be able to:

MO5: Understand and handle Zotero and EndNote for reference management

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Demonstration / Hands on training

Learning Resources

1. Brain, A. (2001). *Web Design*. New Delhi: Dreamtech Publications.
2. Digital Library Planning and Implementation. (2020, March 18). <https://www.youtube.com/watch?v=015urPL5FxM&feature=youtu.be>
3. Faruqi K. K. (1995). *Online database searching and retrieval: Strategies, procedures, commands, and problems: A brief Guide*. Bangalore: Sarada Ranganathan endowment.
4. Kumari, N. (2016). Web-based services in library and information science. *International Journal of Next Generation Library and Technologies*, 2(1), 8.
5. Mishar, V. K. (2016). *Basics of library automation: Koha library management software and data migration*. New Delhi: Ess Ess Publications.
6. Poornima G. N. & Girish R. N. (2019). *Creating and Managing Institutional Repository Using DSpace: A Case Study*. Chhattisgarh: Educreation Publishing.
7. Rohith, K. (2001). *HTML 4 U*. New Delhi: APH Publishing Corporation.
8. Sue, Jenkins. (2007). *Web Design: The L Line, the Express Line to Learning*. New Delhi: Wiley India Publication.
9. Tripathi, A., Prasad H. N., & Mishra, R. (2010). *Open Source Library Solutions*. New Delhi: Ess Ess Publications.
10. Uma V, Suseela J. (2017). *Automation of Library integration operation: A how to do manual*. New Delhi: Ess Ess Publications.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour practical exam

LIS4 C15 – DISSERTATION, VIVA VOCE AND INTERNSHIP**8 Credits**

Students have to carry out research on a topic approved by the department council, under the guidance of a faculty member and prepare a dissertation. They have to follow research methodology suitable to the area of interest with the approval of the supervisor. The dissertation shall be free from plagiarism. Research ethics shall be followed in every step of the work. The approved style for referencing is APA and appropriate size of the dissertation shall be 100 typed pages in A4 size paper. The students should also appear for a viva-voce. The valuation shall be jointly done by the supervisor of the project in the department and an External Expert from the approved panel, based on a well-defined scheme of valuation.

Students have to do one month internship in a library approved by the department council during the summer holidays between second and third semesters. The marks have to be awarded based on the performance appraisal report of the librarian of the library where the students have undergone internship and a viva conducted by the department council after the internship. If any student fails to fulfil this requirement, his/ her result will be withheld until the Internship requirement is met.

Apart from this, the students will have to undergo one study tour to visit the most important libraries and information centres across the country. A report of the tour has to be prepared by all students.

ELECTIVE COURSES

Among the following courses, the Department Council can select the elective courses for different semesters

LIS2 E01 - DIGITAL RESOURCES

4 Credits

Course Outcome:

- CO1:** Understand digital resources and their types (Understand)
- CO2:** Grasp the techniques and processes involved in digital collection development
- CO3:** Understand the techniques and methods of digital resources management (Understand)
- CO4:** Aware digital resource initiatives in India
- CO5:** Illuminate the concept of various open education resources (Understand)

Module 1 Introduction to Digital Resources

Digital resources: definition, characteristics, scope and challenges
 Variety of digital resources: e-books, e-journals, e-zines, databases, geospatial e-resources
 Electronic Theses and Dissertations (ETDs)
 Subject gateways, digital libraries, institutional repositories

Module Outcome:

After completion of this module, the student should be able to:

MO1: Narrate the characteristics and scope of different types of digital resources (Understand)

Module 2 Electronic Resources: Collection Development

Selection tools
 Licensing and negotiation
 Digital Rights Management
 Open digital resources
 Incorporating free resources into library collections

Module Outcome:

After completion of this module, the student should be able to:

MO2: Understand the different process and tools involved in digital collection development (Understand)

Module 3 Electronic Resources Management

Electronic resources life cycle
 ERAMS – A 2 Z lists, Open URL, Link resolvers, Federated search services, Web discovery services

Managing multiple formats, preservation and archiving of e-resources
 Marketing strategies for the digital resources in the library
 Innovative library services using digital resources

Module Outcome:

After completion of this module, the student should be able to:

MO3: Learn how to manage electronic resources (Understand)

MO3: Identify different tools and techniques used for e-resource archiving and preservation (Understand)

MO3: Familiarize innovative library services used in digital resources (Understand)

Module 4 Digital Resources Initiatives in India

Initiatives for the production, storage and dissemination of digital information

Library consortia: UGC ShodhSindhu, DAE, FORSA

Scholarly Journals: Indian Academy of Sciences, INSA, MedIND, IndianJournals.com

ETDs: ETDs of IITs, IISc. Vidyanidhi, ShodhGanga,

Digital Library of India, EPrints@iisc, Librarian's Digital Library

Module Outcome:

After completion of this module, the student should be able to:

MO4: Enlightened on digital resources initiatives in India (Understand)

MO4: Understand various library consortia and ETDs in India (Understand)

Module 5 Open Educational Resources

Learning Management System

Open Educational Resources

MIT OpenCourseWare

Online Courseware: NPTEL, e-PG-Pathshala, Swayam

Module Outcome:

After completion of this module, the student should be able to:

MO5: Well informed on different types of open educational resources (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Andrew, C. (2010). *Introduction to digital library management*. London: Facet Publishing.
2. Chowdhury, G. G. & Chowdhury, S. (2003). *Introduction to digital libraries*. London: Facet Publishing.
3. Gunjal, B., Pradhan, D. K., & Mishra, V. K. (eds.). (2016). *Electronic resource management in libraries*. New Delhi: ESS publication.
4. Jones, R., Andrew, T., & MacColl, J. (2006). *The institutional repository*, Oxford: Chandos Publishing.
5. Kaushik, A. (2017). *Massive open online course (MOOC) in Library Science Domain*, New Delhi: B.R. publishing.
6. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition* (Vol.1). New Delhi: B.R Publishing.
7. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition*. (Vol.2). New Delhi: B.R Publishing.
8. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition*. (Vol.3). New Delhi: B.R Publishing.
9. Kumar, P.S.G. (2016). *Fundamentals of information science: fourth revised and enlarged edition*. (Vol.4). New Delhi: B.R Publishing.
10. Penny, D., Beard, J., & Holland, M. (eds.). (2017). *University Libraries and digital learning environments*. Routledge.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS2 E02 - INFORMATION LITERACY**4 Credits****Course Outcome:**

- CO1:** Understand the need, types and models of information literacy (Understand)
CO2: Understand different information literacy policies, standards and assessment tools
CO3: Understand the different methods to access information (Understand)
CO4: Illuminate the role of libraries in information literacy (Understand)

Module 1 Introduction to Information Literacy

Meaning, definition and need for information literacy
 Levels of information literacy: entry level, mid level, high level, and advance level
 Technological component of information literacy
 Digital divide and information literacy
 Barriers of information literacy

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the need and levels of information literacy (Understand)
MO1: Understand the technological components and barriers of information literacy (Understand)

Module 2 Types of Information Literacy

Library literacy, technology literacy, media literacy, computer and digital literacy, resource literacy, research literacy, publishing literacy, meta literacy
 Models of Information literacy: Big6, 8Ws Model, The Research Cycle, PLUS Model, DIALOGUE Model, SCONUL Seven Pillars of Information Literacy, Empowering 8IL Model

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Understand the different types and models of information literacy (Understand)

Module 3 Information Literacy Policies and Standards

International and national initiatives, policies and guidelines
 IFLA, ALA, UNESCO,
 Information literacy standards
 Information literacy best practices
 Information literacy assessment tools

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand different information literacy policies, standards and assessment tools (Understand)

Module 4 Retrieval of Information

Library catalogues, indexes, OPAC/WebOPAC, Webscale

Discovery

Search strategy, techniques and methods, use of Boolean logic

Search engines, metasearch engines and web directories

Techniques of retrieving relevant information from the Internet

Evaluation of information from the Internet

Ethics of creating and using information

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand the different methods to access library catalogue (Understand)

MO4: Assess different search strategies and techniques (Analyse)

MO4: Evaluate information accessed from internet (Evaluate)

Module 5 Role of Libraries in Information literacy

Information literacy instructions in different types of libraries and information centers

Study of information literacy programs in the world

Information literacy competencies

Challenges facing information literacy

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand different information literacy programs take place around the world (Understand)

MO5: Understand various information literacy competencies (Understand)

MO5: Analyse the challenges in information literacy (Analyse)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Bruce, C. (1997). *The Seven Faces of Information Literacy* (p.110). Adelaide: Auslib Press.
2. Buckingham, D. (2003). *Media Education: Literacy, learning and contemporary*. Cambridge, MA: Polity Press.
3. Cordell, R. M. (Ed.) (2013, June). Library Reference Services and Information Literacy: Models for Academic Institutions: Models for Academic Institutions. IGI Global. doi:10.4018/978-1-4666-4241-6
4. Horton Forest Woody, J. (2007). *Understanding Information Literacy:A Primer*;United Nations Educational,Scientific and Cultural Organization.
5. *Media and Information Literacy; Policy and Strategy Guidelines; UNESCO*; (2013). United Nations Educational, Scientific and Cultural Organization. Retrieved from <http://www.unesco.org/new/en/communication-and-information>
6. Potter, W. J. (2004). *Theory of Media Literacy:A Cognitive Approach*. Thousand Oaks,CA: Sage.
7. Radcliff, C. J., Jensen,, M. L., Jr., J. S., Burhanna, K. J., & Gedeon, J. A. (2007). *A Practical Guide to Information Literacy Assessment for Academic Librarians*. Greenwood Publishing Group.
8. Silverstone, R. (2007). *Media and Morality: On the Rise of Mediapolis*. Cambridge: Polity Press. Retrieved from <http://www.polity.co.uk/book.asp?ref=9780745635033>

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS3 E03 - STATISTICS AND INFORMETRICS**4 Credits****Course Outcomes:**

- CO1:** Articulate and exemplify various statistical methods in Library and Information Science research (Understand)
- CO2:** Application of various statistical tools and techniques for data analysis (Understand)
- CO3:** Recognize application of metrics study in Library and Information Science

Module 1 Introduction to Statistics

Origin and meaning of Statistics
 Scope and general uses
 Limitations of Statistics
 Use of Statistics in libraries and information centres

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Describe origin, meaning and scope of statistics (Understand)
- MO1:** Explain the use of statistics in libraries and information centres (Understand)

Module 2 Measures of Central Tendency

Arithmetic Mean and Weighted Arithmetic Mean
 Median and Mode
 Geometric Mean
 Harmonic Mean

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Distinguish different types of measures of central tendency (Analyse)

Module 3 Measures of Dispersion

Definition and characteristics of good dispersion
 Range, Quartile Deviation, Mean Deviation, Standard Deviation, Percentiles and Deciles
 Relative measure of dispersion – coefficient of variation
 Definition of measures of Skewness and measures of Kurtosis.

Module Outcome:

After completion of this module, the student should be able to:

MO3: Define and understand the characteristics of dispersion (Understand)
MO3: Analyse different types of measures of dispersion (Analyse)
MO3: Describe measures of Skewness and measures of Kurtosis (Understand)

Module 4 Correlation and Regression

Karl Pearson's coefficient of correlation
 Concept of rank correlation, Spearman's rank correlation coefficient
 Simple regression- properties and uses
 Testing of hypothesis: significance level, one tailed test, two tailed tests, Type I error and Type II error, T test, Chi square test, F test, ANOVA

Module Outcome:

After completion of this module, the student should be able to:

MO4: Explain different types of correlation (Understand)
MO4: Understand different methods used in testing hypothesis (Understand)

Module 5 Metric Studies

Definition, scope and genesis of Bibliometrics, Scientometrics, Webometrics and Altmetrics
 Bibliometrics laws-Bradford's law, Zipf's law and Lotka's law
 Citation analysis and citation study, Bibliographic coupling
 Co-citation analysis
 Growth and obsolescence of literature
 Software tools for informetric analysis
 Impact factors-Journals, Authors and Institutions; h-index, g-index, i-10 index

Module Outcome:

After completion of this module, the student should be able to:

MO5: Describe the definition, scope and genesis of bibliometrics, scientometrics, webometrics and altmetrics (Understand)
MO5: Explain different laws in bibliometrics (Understand)
MO5: Understand different methods of impact factors (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Croxton, F E, D J Cowden and S Klein, (1979). *Applied General Statistics*, Prentice Hall of India, New Delhi.
2. Egghe, L., & Rousseau, R. (1990). *Introduction to informetrics: Quantitative methods in library, documentation and information science*. Elsevier Science Publishers.
3. Egghe, L., & Rousseau, R. (2003). *Elementary statistics for effective library and information service management*. Routledge.
4. Gupta, C.B., and Vijay Gupta, (1998), *An Introduction to Statistical Methods*, Vikas Publishing House Pvt. Ltd., New Delhi.
5. Gupta, S.C., and Kapoor, V.K., *Fundamentals of Mathematical Statistics*, Sultan Chand & Sons, New Delhi.
6. Gupta, S.P., (1999), *Statistical Methods*, Sultan Chand & Sons, New Delhi.
7. Mentgomery, D.C. and L.A. Johnson. (1996), '*Forecasting and Time Series Analysis*' McGraw Hill : New York.
8. Spiegel, M R, 1992. *Statistics*, Schaum's Outline Series, Mc Graw Hill, Singapore.
9. Spiegel, M R. (1992). *Statistics*, Schaum's Outline Series, McGraw Hill, Singapore.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS3 E04 - KNOWLEDGE MANAGEMENT**4 Credits****Course Outcomes:**

- CO1:** Articulate and exemplify basics of knowledge management (Understand)
CO2: Distinguish different types of knowledge (Understand)
CO3: Enunciating the concepts of KM Systems, knowledge architecture etc
CO4: Express effectively about Knowledge Management systems, tools and portals
CO5: Articulate basic knowledge about knowledge capturing, codification, transferring and sharing

Module 1 Knowledge Management Basics

Knowledge Management -concepts and definition
 Need for Knowledge Management
 Knowledge Management systems
 Issues in Knowledge Management

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the basic concept of knowledge management and knowledge management systems (Understand)
MO1: Analyse issues in knowledge management (Analyse)

Module 2 Types of Knowledge

Characteristics of knowledge
 Subjective and objective view of knowledge
 Procedural vs. Declarative knowledge
 Tacit vs. Explicit knowledge
 General vs. Specific knowledge
 Technically vs. Contextually Specific knowledge

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Understand the characteristics and different types of knowledge (Understand)

Module 3 Knowledge Creation & Knowledge Architecture

Knowledge creation, Nonaka's Model of Knowledge Creation & Transformation,
 Knowledge Architecture, acquiring the KM System capturing tacit knowledge – methods
 Knowledge codification – tools and procedures
 Knowledge testing; knowledge transfer

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand knowledge architecture and grasp the process involved in knowledge creation (Understand)

MO3: Remember the concept of knowledge testing and knowledge transfer (Understand)

Module 4 Knowledge Base

Knowledge mapping

Decision trees, decision tables, frames

Knowledge works

Knowledge markets

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand the knowledge mapping and describe different types of knowledge mapping (Understand)

Module 5 Knowledge Management System Tools and Portals

Data visualization

Tools and techniques of knowledge management

Knowledge based systems vs expert systems

Neural networks, data mining; managing knowledge workers

Knowledge management in library and information centres

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand basics of data visualisation (Understand)

MO5: Understand the different tools and techniques used in knowledge management (Understand)

MO5: Application of knowledge management in library and information centres (Remember)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Alavi, M. and Leidner, D.E. (2001) *Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues*. MIS Quarterly, 25, 107-136.
<http://dx.doi.org/10.2307/3250961>
2. Becerra-Fernandez, I., & Sabherwal, R. (2014). *Knowledge Management: Systems and Processes*. Routledge
3. D.G. Schwartz, (2006). 538–543. Hershey, PA: Idea Group Publishing
4. Davenport, T. H., & Prusak, L. (1998). *Working knowledge*. Boston, MA: Harvard Business School Press.
5. Desouza, K.C. & Paquette, S. (2011). *Knowledge management: an introduction*, London: Neal Schuman Publishing.
6. Dhiman, A. K., & Sharma, H. (2009). *Knowledge Management for librarians*. New Delhi: Ess Ess Publication.
7. Elliasm, Awad and Hassan M Ghaziei. (2010). *Knowledge management*. 2nd ed. New Delhi: PHI Leans.
8. Gupta, A. (2015). *Application of Knowledge for Management in Digital Era*. New Delhi: Centrum Press.
9. King, W.R.. In "*Knowledge transfer*": *The encyclopaedia of knowledge management*, ed.
10. Koenig, Michael EP & Srikantalah, T.K. (Eds.). (2008). *Knowledge management lessons learned: what works & what doesn't*. New Delhi, Ess Ess Publications.
11. Liebowitz, J. and Wilcox, L.C. (1997). *Knowledge management and its integrative elements*. USA: CRC Press.
12. Liebowitz, J. (1997). *Knowledge management: lessons learned from knowledge engineering*. US: CRC Press.
13. Management systems: Conceptual foundations and research issues. MIS Quarterly,
14. McInerney, Claire, and Koenig, Michael E. D. (2011). *Knowledge Management (KM) Processes in Organizations: Theoretical Foundations and Practice*, Morgan and Claypool.
15. Michael Earl (2001). *Knowledge Management Strategies: Toward a Taxonomy*, *Journal of Management Information Systems*, 18:1, 215-233, DOI: [10.1080/07421222.2001.11045670](https://doi.org/10.1080/07421222.2001.11045670)
16. Natarajan, M. (2015). *Knowledge management: challenges and applications*. New Delhi: EssEss Publication.
17. Nonaka, I., Takeuchi, H., (1995). "*The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*", Oxford University Press.
18. Rupali Shah. (2013). *Practical knowledge management*. New Delhi: Horizon Press.
19. Sanchez, R. (1996). *Strategic Learning and Knowledge Management*. Chichester: Wiley.
20. Srikantiah, T. K., Koenig, M. (2000). "*Knowledge Management for the Information Professional*" Information Today, Inc.

Online Sources

21. Knowledge codification(2017).[video] retrievable from <https://www.youtube.com/watch?v=CLxS-jX28mA>
22. Knowledge management system (2017).[video] retrievable from <https://www.youtube.com/watch?v=1K3mUa0-1Js>
23. Knowledge Management. [pdf]. Retrievable, from https://www.tutorialspoint.com/knowledge_management/knowledge_management_tutorial.pdf.
24. Knowledge Management.(2020).[video] Retrievable from <https://www.youtube.com/watch?v=Zaffxj5f5hg>
25. Ponzi, Leonard., & Koenig, M.E.D. (2002). Knowledge Management: Another Management Fad?" Information Research, 8(1). Retrievable from <http://informationr.net/ir/8-1/paper145.html>

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS3 E05 - DIGITAL LIBRARIES**4 Credits****Course Outcome:**

- CO1:** Articulate and exemplify the concept of digital library (Understand)
CO2: Enlighten with different digital library resources (Understand)
CO3: Familiarize with the processes involved in the digital library creation and use (Understand)
CO4: Understand the rights and issues related to digital information
CO5: Understand the design and development of digital library with GSDL

Module 1 Introduction to Digital Libraries

Digital library: definition, scope and characteristics
 Major digital library initiatives in the world and in India
 Design and organization of digital libraries - architecture, interoperability, and compatibility
 User interfaces, protocols and standards

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the concept and architecture of digital library (Understand)
MO1: Evaluate the major digital library initiatives in India and world (Evaluate)

Module 2 Digital Library - Resources

Digital collection - nature and scope
 Digital objects, files and file formats
 Identification of, accessing, processing, storage, delivery and use of digital resources
 Digital library user - assessment of user behaviour and needs

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Understand the nature, scope and formats of digital resources (Understand)
MO2: Evaluate digital library user's needs and behaviours (Evaluate)

Module 3 Digital Library-Creation and Use

Digital library creation - prerequisites; content development
 Digitization - scanning, OCRing and conversion to PDF
 Information access, user behaviour and Interaction
 Metadata development
 Digital preservation and conservation - archiving

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand the process involved in digital library creation (Understand)

MO3: Evaluate the techniques used in digital preservation and conservation (Evaluate)

Module 4 Digital Library Technologies

Digital representation and compression

Access control and DRM

Network platforms and server management

Digital information - Intellectual property issues

Rights management

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand various digital library technologies, and intellectual property issues (Understand)

Module 5 Digital Library Software

Open source software – GSDL

Design and architecture of GSDL

Digital library case studies

Module Outcome:

After completion of this module, the student should be able to:

MO5: Understand the design and development of digital library with GSDL (Understand)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Andrews, J. (2010). *Digital libraries*. London: Ashgate.
2. Cornish, G. P. (1990). *Copyright interpreting the law for libraries and archives*. London: Library Association.
3. Dahl, M.V., Banerjee, K., & Spalti, M. (2006). *Digital libraries: Integrating content and systems*. London: Chandos.
4. Fenner, A. (Ed.). (2005). *Managing digital resources in libraries*. New York: Haworth.
5. Gopal, K. (2000). *Digital libraries in electronic information era*. New Delhi: Authors Press.
6. Lesk, M. (1996). *Understanding digital libraries* (2nd ed.). San Francisco: Morgan Kaufmann.
7. Pitkin, G. M. (Ed.). (1996). *The National electronic library: A guide to the future for library managers*. London: Greenwood Press.
8. Tedd, L.A., & Large, A. (2005). *Digital libraries: Principles and practice in a global environment*. Munchen, Germany: K. G. Saur.
9. Arms, W.Y. (2005). *Digital libraries*. New Delhi: Ann Peterson- kemp.
10. Witten, I.H., & Bainbridge, D. (2005). *How to build a digital library*. Amsterdam: Morgan Kaufmann.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS3 E06 - ORGANIZING INFORMATION RESOURCES - PRACTICE 4 Credits**Course Outcome**

CO1: Understand the Dublin Core metadata in detail (Understand)

CO2: Understand the creation of metadata according to Dublin Core schema

Module Creating metadata records according Dublin Core and other specialized metadata, standards for a variety of electronic resources. Use of online ontologies for subject indexing

Module Outcome:

After completion of this module, the student should be able to:

MO: Identify the types of metadata (Analyse)

MO: Understand the creation of metadata according to Dublin Core schema (Understand)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Demonstration / Hands on training

Learning Resources

1. Faiez, G. & Wassim, J. (2010). *Ontology theory, management and design advanced tools and models*. Hershey Information Science.
2. Lubas, R.L., Jackson, A.S & Schneider, I. (2013). *Metadata manual: a practical workbook*. Oxford: Chandos Pub.
3. Robert, M.C. (2007). *Ontology and the semantic web*. Washington DC, IOS Press.
4. Stephen, M.J. (2011). *Metadata for digital collections a how-to-do-it manual*. London Facet.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour practical exam

LIS4 E07 - TECHNICAL COMMUNICATION**4 Credits****Course Outcome:**

- CO1:** Gain knowledge about the communication process and different types of writing
- CO2:** Diagnose audience recognition and involvement
- CO3:** Create layout and presentation of information
- CO4:** Identify common problems spelling, grammar, usage and punctuation
- CO5:** Gain awareness about style manuals, proof reading and reference management

Module 1 Communication Process

Types: verbal, non-verbal, formal, informal
 Types of writing
 Technical writing: principles, characteristics
 Language as a medium for communication, readability
 Audience Research

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Explain verbal and non-verbal communication (Understand)
- MO1:** Describe the basic concepts and types of writing (Understand)
- MO1:** Gain awareness about technical writing, its process, characteristic and principles (Understand)
- MO1:** Evaluate audience recognition and involvement (Evaluate)

Module 2 Organization, Lay out and Presentation of Information

Learned papers
 Popular articles
 Technical reports
 Project proposals
 Book design and page layout
 Forms of electronic communication

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Achieve familiarity in layout and structure of reports, articles, proposals, books, etc (Understand)

Module 3 Repackaging and Consolidation

Trend reports
 Reviews
 State-of- the art reports

Digests
Abstracts – types, preparation, guidelines

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand how to repackage and consolidate information (Understand)

Module 4 Mechanics of Writing

Common problems in spelling, grammar, usage and punctuation
Writing process, paragraph organization, writing style
Technical, creative and scientific writing
Copy editing and proof reading
Scholarly publishing platforms

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand the mechanics of writing (Understand)

MO4: Examine the various problems in spelling, grammar, usage and punctuation (Analyse)

MO4: Describe copy editing; proof reading; reference management (Understand)

Module 5 Oral Presentation

Analysis of speakers and speaking styles
The parts of a presentation: introduction, body and conclusion
Practice with common presentation types
Tips for the use of effective visual aids

Module Outcome:

After completion of this module, the student should be able to:

MO5: Analyse different types of speaking styles (Understand)

MO5: Examine the different parts of a presentation (Analyse)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Anderson P. V. (2007). *Technical Communication: A Reader centered approach* (6th ed.). Australia: Cengage Learning.
2. Ashraf Rizvi, M. (2001). *Effective technical communication*. New Delhi: Tata McGraw Hill.
3. Day, R.A., & Gastel, B. (2012). *How to write and publish a scientific paper* (7th ed.). Cambridge, UK: Cambridge University Press.
4. Gerson, S.J., & Gerson, S. M. (2000). *Technical Writing: Process and Product*. (3rd ed.). New Delhi: Pearson Education.
5. Gibaldi, J.(2004). *MLA Handbook of writers and research papers* (6th ed.). New Delhi: Affiliated East West.
6. Raman, M., & Sharma, S. (2012).*Technical communication: Principles and practices* (2nd ed.). New Delhi: Oxford University Press.
7. Sathish S. (2010). *Recent developments in technical writing*. New Delhi: Arise Publications.
8. Sunil, G. (2004). *Essentials in technical communication*. Mumbai: Himalaya Publishing House.
9. Devarajan, G. (2012). *Technical Communication for Information Managers*. New Delhi: ESS ESS Publications.
10. Sajitha, J. (2013). *Technical Writing*. Mumbai: Himalaya Publishing House.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

LIS4 E08 - PERSONALITY DEVELOPMENT & COMMUNICATION SKILLS**4 Credits****Course Outcome:**

- CO1:** Gain knowledge to personality development(Understand)
- CO2:** Flourish effective communication skills
- CO3:** Develop attractive technical writing skills
- CO4:** Grasp different techniques of non-verbal communication
- CO5:** Learn how to conduct meetings and negotiation

Module 1 Understanding Self

Personality-definition, elements and determinants
 Understanding personal strengths and weakness
 Personal grooming-personal hygiene and social effectiveness
 Emotional intelligence and competence

Module Outcome:

After completion of this module, the student should be able to:

- MO1:** Understand the elements and determinants of personality (Understand)
- MO1:** Recognize personal strengths and weakness(Understand)

Module 2 Communication Skills

Effective speaking
 Improving vocabulary and grammar
 Elements of effective speaking
 Types of speaking - briefings, teaching lectures, speeches and others
 Understanding the audience, audience analysis,
 subject gathering materials, evaluating materials
 Presenting a talk, and other process

Module Outcome:

After completion of this module, the student should be able to:

- MO2:** Develop an effective speaking skill (Understand)
- MO2:** Understand the audience (Evaluate)

Module 3 Writing skills

Principles of presentation of ideas
 Techniques, skills and tools for effective writing
 Writing process, paragraph organization, writing style
 Types of writing – technical, creative and scientific writing

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand the techniques, tools and skills needed for effective writing (Understand)

MO3: Discuss the process involved in technical writing (Understand)

MO3: Distinguish different types of writing (Evaluate)

Module 4 Non Verbal Communication

Body language

Leadership and working in teams

Working collaboratively

Working and sharing knowledge and experience

Team development

Module Outcome:

After completion of this module, the student should be able to:

MO4: Establish effective non-verbal communication skills (Understand)

Module 5 Meetings and Negotiation Skills

Different types of meetings

Conducting a meeting

Getting the best out of negotiation

Negotiation strategies

Module Outcome:

After completion of this module, the student should be able to:

MO5: Distinguish different types of meetings (Understand)

MO5: Learn how to conduct an effective meeting and negotiation (Understand)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Barker, Alan (2002). *Improve your communication skills*. Kogan
2. Berger, A. A. (1993). *Improving Writing Skills: Memos, Letters, Reports, and Proposals*. SAGE Publications.
3. Brad Jackson, Collinson, David L. Collinson, Keith Grint. (1997). *Leadership*. Oxford University Press.
4. Cloninger, Susan C. (1996). *Personality Description: Dynamics and Development*. W.H. Freeman And Company.
5. Kouzes, James M, Posner, Barry Z. *Learning leadership: the five fundamentals of becoming an exemplary leader*. Vanity Books International
6. Krishna Mohan and Meera Banerji. (1997). *Developing communication skills*. Macmillan India Limited.
7. Mary L. Connerley, Paul B. Pedersen. (2005). *Leadership in a diverse and multicultural environment*. Sage Publications.
8. McRae, Brad (1998). *Negotiating and influencing skills*. Sage Publications
9. Nahavandi, Afsanesh (2006). *Art and science of leadership*. Pearson.
10. Wright, Chrissie. (1999). *Handbook of practical communication skills*. Jaico Publishing House.

Assessment

20 percent continuous / formative assessment

80 percent end-semester/summative assessment: 3 hour written exam

AUDIT COURSES

ABILITY ENHANCEMENT COURSE (AEC)

LIS1 A01 – SOFT SKILLS

2 Credits

Course Outcome:

- CO1:** Understand the significance and categories of soft skills (Understand)
- CO2:** Understand types and structure of communication (Understand)
- CO3:** Understand stress and how to manage stress (Understand)
- CO4:** Understand time management, negotiation, problem solving and emotional intelligence skills (Understand)

Module 1 Soft Skills –An Introduction

Definition and significance of soft skills
 Importance and measurement of soft skill development
 Categories of soft skills - corporate skills, employability skills and life skills
 Personality development

Module Outcome:

After completion of this module, the student should be able to:

MO1: Understand the significance, measurement and categories of soft skills (Understand)

Module 2 Communication Skills

Types of communication – verbal and non-verbal communication
 Interpersonal communication, team communication
 Types of oral communication; structure of an oral presentation;
 body language; use of visual aids
 Telephonic communication skills
 Listening skills; types of listening -- passive listening,
 active listening, reflective listening
 Group discussion and interview skills

Module Outcome:

After completion of this module, the student should be able to:

MO2: Describe the different types of communication (Understand)

MO2: Understand different skills needed for communication (Understand)

Module 3 Stress Management

Understanding stress; types of stress
 Symptoms of work stress

Personality and stress
Stress management techniques

Module Outcome:

After completion of this module, the student should be able to:

MO3: Understand stress, symptoms of stress and its types (Understand)

MO3: Understand how to manage stress (Understand)

Module 4 Other Management Skills

Time management, techniques of time management

Teamwork and leadership skills

Negotiation skills: types of negotiation, stages of negotiation

Decision making and problem solving skills

Emotional Intelligence skills

Module Outcome:

After completion of this module, the student should be able to:

MO4: Understand time management, negotiation, problem solving and emotional intelligence skills (Understand)

Activities, Learning Resources and Assessment

Suggested Class Room Activities

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Banerji, M., Mohan, K. (2000). *Developing Communication Skills*. Macmillan India Limited.
2. Bryson, J. (2018). *Effective Library and Information Centre Management*. Routledge.
3. Jain, A. K., Sheikh, A. M. (2008). *Professional Communication Skills*. S. Chand Limited.
4. Kumar, P.S.G. (2003) *Management of library and information centres*. B.R.publishing Corporation.
5. Kumar, K. J. (2000). *Mass Communication in India (4th ed.)*. India: Jaico Publishing House.
6. Lahiri, R. (2001). Professionalism and Research in Library and Information Science. 1999. *Herald of Library Science*, 40(3/4), 263.
7. Mahapatra, R.K. (2010). *Capacity building and restructuring of library and*

- information centres*. Ess Ess publication.
8. Mehta, D. S. (1980). *Mass Communication and Journalism in India*. Allied Publishers Private Limited.
 9. Mitra, B. (2012). *Personality Development and Soft Skills*. Oxford University Press.
 10. Redley, Martin. (2019, June 26). Un employability and the lack of skills: How to be job- ready. *Hindustan times*.

Assessment

100 percent end-semester/summative assessment: 2 hour written exam.

PROFESSIONAL COMPETENCY COURSE (PCC)**LIS2 A02 – INFORMATION TECHNOLOGY COMPETENCY - PRACTICE****2 Credits****Course Outcome:**

- CO1:** Understand how to use and install Windows and Linux operating systems
CO2: Learn to use MS Word, Open Office Writer, MS Access, MS Excel and MS Power Point software (Apply)
CO3: Understand and use various internet tools, services and utilities (Understand)

Module 1 Operating system – Windows; Linux**Module Outcome:**

After completion of this module, the student should be able to:

MO1: Understand how to install and use Windows and Linux operating systems (Apply)

Module 2 Word processing – MS Word; Open Office Writer**Module Outcome:**

After completion of this module, the student should be able to:

MO2: Learn to install and use MS Word and Open Office Writer software (Apply)

Module 3 DBMS – MS Access**Module Outcome:**

After completion of this module, the student should be able to:

MO3: Learn to install and use MS Access software (Apply)

Module 4 Spreadsheet – MS Excel; Presentation – MS Power Point**Module Outcome:**

After completion of this module, the student should be able to:

MO4: Learn to use MS Excel and MS Power Point software (Apply)

Module 5 Internet tools / services / utilities**Module Outcome:**

After completion of this module, the student should be able to:

MO5: Understand and use various internet tools, services and utilities (Apply)

Activities, Learning Resources and Assessment**Suggested Class Room Activities**

- Assignments
- Seminar presentation on selected topics
- Quizzes
- Discussions

Learning Resources

1. Aityan, S. K. (2020). *Practical Guide to PC and Microsoft Office 365: Word, Excel, PowerPoint*.
2. Alexander, M., Walkenbach, J., Kusleika, R. (2018). *Excel 2019 Bible*. Wiley.
3. Borgen, J., Graham, M. J. (2017). *Google Tools Meets Middle School*. Sage Publications.
4. Burke, D., Calabria, J. (1997). *Microsoft PowerPoint 97 Exam Guide*. QUE.
5. Godbole, A. S., Kahate, A. (2013). *Web Technologies: TCP/IP, Web/Java Programming, and Cloud Computing*. McGraw Hill Education (India).
6. Haff, G. (2021). *How Open Source Ate Software: Understand the Open Source Movement and So Much More*. Apress.
7. Lambert, J. (2019). *Microsoft Word 2019 Step by Step*. Pearson Education.
8. Lee, W. (2009). *Windows 7: Up and Running: A Quick, Hands-on Introduction*. O'Reilly Media.
9. Livers, A. F. (2008). *Using Microsoft Office to Enhance Student Learning*. Sage Publications.
10. Noelle, R. (2010). *Microsoft Word 2010 in Simple Steps*. Pearson.

Assessment

100 percent end-semester/summative assessment: 2 hour practical exam.