

**SEMESTER-WISE COURSE STRUCTURE FOR THE TWO YEARS P.G. PROGRAMMES IN  
GOVERNMENT AUTONOMOUS COLLEGE ROURKELA(2023-25)  
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE**

Semester	Paper	Course Title	Credits	Marks		
				Mid Sem.	End Sem.	Total
I	AECC-I	Entrepreneurship Development	2	20+20(assign ment)	60	100
	101	Foundation of Library & Information Science	4	20	80	100
	102	Knowledge Organisation (Classification)	4	20	80	100
	103	Knowledge Organisation (Cataloguing)	4	20	80	100
	104	Information Sources, Systems & Services	4	20	80	100
	105	Library Classification Practical	2	--	50	50
	106	Library Cataloguing Practical	2	--	50	50
	<b>Total Credit /Marks for First Semester</b>			<b>22</b>		
II	AECC-II	Environmental Studies And Disaster Management	2	20+20(assign ment)	60	100
	201	ICT and Library Automation	4	20	80	100
	202	Information Storage and Retrieval System	4	20	80	100
	203	Information Indexing & Searching	4	20	80	100
	204	Management of Libraries & Information Centers	4	20	80	100
	205	Computer Application Practical	2	--	50	50
	206	Library Automation Practical	2	--	50	50
	<b>Total Credit /Marks for Second Semester</b>			<b>22</b>		
III	IDC	Research Ethics and Plagiarism (NON-CORE students)	3	20+20(assign ment)	60	100
	301	Internet and Web Resources	4	20	80	100
	302	Digital Library	4	20	80	100

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	<b>303</b>	Research Methodology	<b>4</b>	20	80	100
	<b>304</b>	Research Ethics and Plagiarism	<b>4</b>	20	80	100
	<b>305</b>	Digital Library Practical	<b>2</b>		50	50
	<b>306</b>	Practical (Internship)	<b>2</b>		50	50
	<b>307</b>	MOOC's one paper from Swayam or others	<b>3</b>	-	-	-
	<b>Total Credit /Marks for Third Semester</b>		<b>26</b>			<b>600</b>
<b>IV</b>	<b>401</b>	Preservation and Conservation of Library Resources	<b>4</b>	20	80	100
	<b>402</b>	Information Needs and Seeking Behaviour	<b>4</b>	20	80	100
	<b>403</b>	Electronic Resources Management	<b>4</b>	20	80	100
	<b>404</b>	Open Access and Scholarly Communication	<b>4</b>	20	80	100
	<b>405</b>	Project (Project Work (50)+ Viva (30)+ Presentation (20))	<b>4</b>	50+30+20		100
	<b>Total Credit /Marks for Fourth Semester</b>		<b>20</b>			<b>500</b>
	<b>Total Credit</b>		<b>90</b>			<b>2300</b>
<p><b>One Non-credit course will be taken by the students during the 2 year of study</b></p> <p><b>NCC/NSS/Sports/Yoga/Gardening/ Socially Useful Productive Work (SUPW)</b></p>						

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## FIRST SEMESTER

Course No.P-101 : FOUNDATION OF LIBRARY AND INFORMATION SCIENCE

(FM: 100/4

### Credits) Course Objective:

The objective of this course is to introduce the students with the role of libraries in the society along with the overview of the philosophy and principles library profession, and the concept of library related Acts and Policies.

### Course Outcome:

1. Remember and understand the basic concepts related to Library and Information Science
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

### Course Content:

#### UNIT-1 INFORMATION AND COMMUNICATION

- 1.1 Information: Definition, Types, Characteristics, Values and Use; Data, Information, Knowledge and Wisdom.
- 1.2 Information Science: Definition, Scope and linkages with other disciplines
- 1.3 Communication: Definition, Concept, Types, Communication Models (Theories): Shannon's Theory, Lasswell's Theory

#### UNIT-2 NORMATIVE PRINCIPLES OF LIBRARY INFORMATION SCIENCE, LIBRARY LEGISLATIONS AND ACTS

- 2.1 Five Laws of Library Science and Application of Five Laws in Library and Information Activities
- 2.2 Library Legislation-Concept, Need, Purpose and the Salient Traits
- 2.3 A brief sketch of Library Legislation so far made in different States in India
- 2.4 Press and Registration Act, Delivery of Books (Public Libraries) Act 1954, Indian Copyright Act, 1957, Right to Information Act, 2005

#### UNIT-3 LIBRARY DEVELOPMENT

- 3.1 Development of Libraries with Special reference to India since 1900
- 3.2 Role of UNESCO in development of Public Libraries
- 3.3 National Information Policies in India, National Knowledge Commission
- 3.4 Library Resource Sharing
- 3.5 Library Systems: Public Library, Academic Library and Special Library-Their distinguishing features and functions.

#### UNIT-4 LIBRARY AND INFORMATION PROFESSION AND EXTENSION ACTIVITIES

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- 4.1 Professional Ethics-The Concept and need
- 4.2 Philosophy and Ethics of Librarianship
- 4.3 Publicity and Extension Activities
- 4.4 Outreach Programmes

**UNIT-5 LIBRARY ASSOCIATIONS AND NATIONAL LIBRARIES**

- 5.1 Library Associations: Need, Objectives and Functions
- 5.2 Library Associations: ILA, IASLIC, IFLA
- 5.3 National Library: Its concept and role
- 5.4 National Library of India and Library of Congress (USA)

**Course No: P-102: KNOWLEDGE ORGANIZATION (CLASSIFICATION)**

**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to impart to the students an understanding of knowledge classification and the theories of library classification, to develop skills in document classification and content analysis. The students will also learn about the structure and design of various classification schemes such as DDC and UDC and CC.

**Course Outcome:**

- 1. Remember and understand the basic concepts related to library classification.
- 2. Analyse the Various Concepts to understand them through case studies
- 3. Apply the knowledge in understanding practical problems
- 4. Execute/create the Project or field assignment as per the knowledge gained in the

**Course Content:**

**UNIT-1 FUNDAMENTALS OF LIBRARY CLASSIFICATION**

- 1.1 Definition, Need, Purpose and Functions of Classification, Basic Terminologies and historical perspectives
- 1.2 Basic Terminologies of Library Classification
- 1.3 Species of Library Classification- Enumerative vs. Faceted
- 1.4 Call Number: Class Number, Book Number and Collection Number

**UNIT-2 GENERAL THEORY OF LIBRARY CLASSIFICATION**

- 2.1 Theory of Library Classification : Static and Dynamic
- 2.2 Major Schemes of Library Classification- DDC, UDC & CC
- 2.3 Three planes of work, Fundamental Categories (PMEST), Normative Principles of Library Classification, Postulates
- 2.4 Facet Analysis, Principles of Facet Sequence, Phase Relation, Common Isolates

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- UNIT-3 NOTATION
- 3.1 Notations: Definition, Purpose, Types, Qualities
  - 3.2 Canons of Notational Plane
  - 3.3 Patterns of Notation used in DDC, UDC and CC
  - 3.4 Design of Depth Classification Scheme: Basic considerations and methodology
- UNIT-4 UNIVERSE OF KNOWLEDGE
- 4.1 Universe of Subjects- Types of Subjects, Structure of subjects
  - 4.2 Modes of Formation of Subjects
  - 4.3 Mapping of subjects in different Schemes of classification
  - 4.4 Methodology for the Study of Subjects
- UNIT-5 RECENT TRENDS IN LIBRARY CLASSIFICATION
- 5.1 Relevance of Classification in the context of Computerized/Digital Libraries,
  - 5.2 Online Classification Schemes-Web Dewey, UDC Online, LCC
  - 5.3 Organizations, Societies and Research Groups-LRC, FID/CR, CRG, DRTC, ISKO
  - 5.4 Classification of Web resources, Folksonomy, Web ontology

**Course No: P-103: KNOWLEDGE ORGANISATION (CATALOGUING)**  
**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the principles and theoretical aspects of cataloguing. The students will also learn about the features of various cataloguing standards including computerized catalogue and use of subject headings.

**Course Outcome:**

1. Remember and understand the basic concepts related to library cataloguing
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

UNIT-1 BASICS OF LIBRARY CATALOGUING

- 1.1 Catalogue: Concept, Purpose and Objectives of Library Catalogue
- 1.2 Forms of Catalogue : Outer and Inner Forms
  - 1.2.1. Outer Forms: Conventional and Non-Conventional
  - 1.2.2. Inner forms: Alphabetical, Classified and Alphabetico-Classified Catalogue
- 1.3 Library Catalogue and Five Laws of Library Science

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- 1.4 Entries: Types, Formats & their functions, Data elements in different types of Entries

#### UNIT-2 CONCEPT OF SUBJECT CATALOGUING

- 2.1 Subject Cataloguing: Concept, Objectives, General Principles & Problems of Subject approach
- 2.2 Subject Heading Lists & their features: Library of Congress Subject Headings (LCSH) and Sears List of Subject Headings (SLSH)
- 2.3 Subject Cataloguing
- 2.4 Centralised and Co-operative Cataloguing

#### UNIT-3 CATALOGUING CODES

- 3.1 Cataloguing Codes: Definition, Need, Historical Developments
- 3.2. Features of Anglo-American Cataloguing Rules -2 (AACR-2, Revised Edition)
- 3.3 Features of Classified Catalogue Code (CCC 5<sup>th</sup> Edition)
- 3.4 Features of Resource Description and Access (RDA)

#### UNIT-4 COMPUTERISED CATALOGUING

- 4.1 Need for Computerized Cataloguing,
- 4.2 OPAC, WEBPAC, Social Online Public Access Catalog (SOPAC)
- 4.3 Cataloguing of Web Resources/Digital materials
- 4.4 Retro-conversion

#### UNIT-5 CURRENT TRENDS IN STANDARDIZATION OF BIBLIOGRAPHICAL DESCRIPTION & INFORMATION RETRIEVAL

- 5.1 ISBD
- 5.2. Dublin Core
- 5.3 MARC-21
- 5.4 Z39.50

#### Course No:P-104: INFORMATION SOURCES, SYSTEMS AND SERVICES

(FM: 100/4 Credits)

#### Course Objective:

The objective of this course is to familiarize students with a broad range of information source, i.e., from early forms to the modern forms and to develop evaluation and practical skills in dealing with information sources. Student will be trained in developing various information services and products. They will also get acquaintance with different Library Networks, National Information Systems and Global Information Systems.

#### Course Outcome:

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1. Remember and understand the basic concepts related to various information sources, systems and services
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

**UNIT-1 INFORMATION SOURCES**

- 1.1 Sources of Information-Primary, Secondary & Tertiary; Documentary and Nondocumentary
- 1.2 Bibliographical Sources: Bibliographies, Abstracting journals, Indexing Journals ; Bibliographical Control: Meaning, Purpose, UBC and UAP
- 1.3 Reference Sources: Dictionaries, Encyclopedias, Almanacs, Year Books, Directories, Handbooks, Manuals, News-Summaries, Concordances, Biographical, Geographical Information Sources

**UNIT-2 ECONOMICS OF INFORMATION**

- 2.1 Value of Information as a resource and commodity
- 2.2 Economics of Information Sources and Production
- 2.3 Information as a factor of production

**UNIT-3 INFORMATION SYSTEMS**

- 3.1 Information System: Basic Concept, Components and evaluation
- 3.2 Categories of information systems: libraries, documentation centres, referral centres, information analysis centres, databanks etc. their structure and functions.
- 3.3 Different types of information systems: Decision Support Systems, MIS etc.
- 3.4 National and International Information Systems and Library Networks: NISCAIR, DESIDOC, NASSDOC, NISSAT; Global Information Systems: INIS, AGRIS, MEDLARS; Library Networks:: DELNET and INFLIBNET - their objectives, functions, services, and activities.

**UNIT-4 INFORMATION SERVICES**

- 4.1 Information Services : Concept, Définition, Need & Purpose; Reference Service
- 4.2 Current Awareness Services (CAS), Selective Dissemination of Information (SDI), Bibliographic, Referral, Document Delivery Service (DDS) , Translation service
- 4.3 Abstracting and Indexing Services: Meaning, Use. Types and Parts.
- 4.4 Current trends in information service

**UNIT-5 INFORMATION ANALYSIS, CONSOLIDATION AND REPACKAGING**

- 5.1 Information Analysis and Consolidation: Concept, Need and Purpose
- 5.2 Packaging and Re-Packaging: Concept, Need, Purpose and Criteria
- 5.3 Information Consolidation Products: Types, Design and Development

**Course No:P-105: KNOWLEDGE ORGANIZATION CLASSIFICATION**

**PRACTICAL**

**(FM: 50/2Credits)**

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**Course Objective:**

The objective of this course is to impart practical training to the students in Classification and Cataloguing of various types of documents procured by a library. The students will be able to develop their practical skills in how to analyse subjects, structure, synthesize, assign class numbers and also prepare catalogue entries for documents in a library.

**Course Outcome:**

1. Remember and understand the basic concepts related to classification and cataloguing of documents in a library
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

## UNIT-1 CLASSIFICATION OF DOCUMENTS

Classification of Documents representing Simple, Compound and Complex Subjects using the following Schemes of Library Classification:

1. Dewey Decimal Classification (DDC)
2. UDC Medium Edition

**Course No:P-105: KNOWLEDGE ORGANIZATION CATALOGUING  
PRACTICAL****(FM: 50/2 Credits)****Course Objective:**

The objective of this course is to impart practical training to the students in Classification and Cataloguing of various types of documents procured by a library. The students will be able to develop their practical skills in how to analyse subjects, structure, synthesize, assign class numbers and also prepare catalogue entries for documents in a library.

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**Course Outcome:**

1. Remember and understand the basic concepts related to classification and cataloguing of documents in a library
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

UNIT-1 CATALOGUING OF BOOKS (According to AACR-2 Revised Edition)

- A. Works of Personal Authorship
- B. Works of Joint Authorship
- C. Works of Corporate Authorship
- D. Pseudonymous Works
- E. Serial Publication

UNIT-2 CATALOGUING OF NON-BOOK MATERIALS (According to AACR-2 Revised Edition)

- A. Cartographic Materials
- B. Manuscripts
- C. Motion Pictures
- D. Video Recording

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## SECOND SEMESTER

Course No: P-201: ICT AND LIBRARY AUTOMATION

(FM: 100/4

Credits)

### Course Objective:

The objective of this course is to introduce the students with the basic concept of information communication technology. The students will also learn about the process of library automation and its related technology.

### Course Outcome:

1. Remember and understand the basic concepts related to ICT and Library automation
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

### Course Content:

UNIT-1 COMPUTER AND BASIC TERMINOLOGIES OF IT

- 1.1 Computer: Definition, Concept, History, Characteristics and functions
- 1.2 Computer Hardware: Memory, Input & Output devices
- 1.3 Basic Terminologies and their Conceptual Meaning: Log-on and Log-off, Online, Offline,  
Command, End User and Intermediary, Modem, Password, Prompt, Bit and Byte, and Response Time, Bandwidth, Processors, ASCII, bug, Back up, Virus, Micro Processor

UNIT-2 PROGRAMMING LANGUAGES AND SOFTWARE FUNDAMENTALS

- 2.1 Programming Languages :Types, Characteristics and their Applications
- 2.2 Computer Software- System Software and Application Software
- 2.3 Operating System: Windows and Linux

UNIT-3 NETWORKING

- 3.1 Definition, Need, Client server Architecture
- 3.2 Network types & Topologies
- 3.3 Components of a Network

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UNIT-4 LIBRARY SOFTWARE AND AUTOMATION OF LIBRARIES

- 4.1 An Overview of Library Softwares, types and their features:
- 4.2 Library Automation: Definition and automated housekeeping operations
- 4.3 Selection and implementation of LMS software
- 4.4 Study of Individual Automation Software Packages and their application: LIBSYS, SOUL, KOHA & NewGenLib

UNIT-5 LATEST TRENDS IN ICT APPLICATION

- 5.1 Radio Frequency Identification (RFID) and its applications in libraries
- 5.2 Internet and Web technology: What is Internet, How does it work, Basic web terminologies- TCP/IP, DNS, URL, Telnet, FTP, WWW
- 5.3 Multimedia technology and its application in libraries

**Course No: P-202: INFORMATION STORAGE AND RETRIEVAL SYSTEM**

**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the concept of Information Storage and Retrieval System (ISRS), its types and models. The students will also learn about different methods used to evaluate ISRS.

**Course Outcome:**

1. Remember and understand the basic concepts related to Information storage and retrieval
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

UNIT-1 FUNDAMENTALS OF INFORMATION RETRIEVAL SYSTEM

- 1.1 Information Retrieval System (IRS): Definition, Concept, Components, Functions, and Qualities
- 1.2 ISRS Systems: Types of IRS- Design and Operation
- 1.3 Database: Definition, Concept and Components, Structures

UNIT-2 CLASSICAL MODELS OF INFORMATION RETRIEVAL

- 2.1 Information Retrieval Models: Basic Concept,
- 2.2 Boolean Model, Vector Space Model, Probabilistic Model
- 2.3 Alternative Set Theoretic Models: Fuzzy Set Model, Extended Boolean Model

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UNIT-3 EVALUATION AND COMPATIBILITY

- 3.1 Evaluation of ISRS: Purpose, Criteria and Steps
- 3.2 Common Evaluation Measures: Recall vrs Precision
- 3.3 Evaluation Experiments and Initiatives: Cranfield Tests, SMART, Evaluation of Search Engines
- 3.4 Compatibility of Information Storage and Retrieval System: Areas of Compatibility; Interface Compatibility, Principal issues

UNIT-4 INTELLIGENT INFORMATION RETRIEVAL

- 4.1 Intelligent Information Retrieval: Introduction, Intelligent Retrieval System: Artificial Intelligence (AI), Applications of AI technologies in Libraires
- 4.2 Expert Systems: Definition, Kinds & Components, Application of Expert System in Library & Information Services
- 4.3 Semantic Web: its application in knowledge management

UNIT-5 RECENT TRENDS IN INFORMATION RETRIEVAL

- 5.1 Web Information Retrieval-Characteristics of Web IR-Components of Web IR-Crawler, Page Repository, Indexing Module, Query Module, Ranking Module-Web IR Tasks
- 5.2 Natural Language Processing (NLP): its application in information retrieval
- 5.3 Data mining, Data Warehousing
- 5.4 Web Mining: Concepts, Techniques and applications

**Course No:P-203 : INFORMATION INDEXING AND SEARCHING**

**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to familiarize students with basic Search tools, techniques and to familiarize them different Indexing Languages and Indexing techniques. They will also get thorough knowledge on trends in Online Searching such as Cluster Based Web search; Federated Search; searching through Meta search engine.

**Course Outcome:**

1. Remember and understand the basic concepts related to Search tools and techniques
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

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**Course Content:**

**UNIT-1** INDEXING LANGUAGE AND VOCABULARY CONTROL

- 3.1 Indexing: Concept, Need, Function
- 3.2 Indexing Language: Types and Characteristics
- 3.3 Vocabulary Control: Definition and Purpose. Tools of Vocabulary Control
- 3.4 Thesaurus: Structure and Function; Design/Construction of Thesaurus.(Printed

material)

**UNIT-2** SEARCH STRATEGIES

- 4.1 Pre- Coordinate : Chain Indexing ,PRECIS,POPSI,  
Post Coordinate Indexing, Uniterm, KWIC, KWOC, Keyword Indexing, Citation Indexing
- 4.2 Citation Indexing – Meaning and importance, Different citation indexes: SCI, SSCI, AHCI
- 4.3 Automatic Indexing: Concept and Process; Manual vrs Automatic Indexing,
- 4.4 Automatic Term Extraction and Weighing, Automatic Text Retrieval

**UNIT-3**

- 1.1 Search Strategy: Concept, need, development of a search strategy
- 1.2 Process for Searching: Preparing to search, Feedback and Refining
- 1.3 Basic Search Techniques: Word and Phrase, Boolean, Truncation, Proximity, Field, Metadata, Limit Search Techniques

**UNIT-4** ONLINE SEARCHING

- 2.1 Online Searching and Retrieval: Definition, Historical development, basic features ;  
Searching vs. browsing
- 2.2 Online Search tools: Search Engines- Primary Search Engines, Meta search Engines,  
Focused crawler based search engines and Directories; Subject Gateways
- 2.3 Google Search tools and techniques.

**UNIT-5** CURRENT TRENDS IN ONLINE SEARCHING

- 5.1 Federated search: Concept, Need, Functions, Advantages, Disadvantages

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- 5.2 Federated Search providers- Free and Commercial; Federated Search Engine vs Meta search engine;
- 5.3 Cluster Based Web search

**Course No:P-204: MANAGEMENT OF LIBRARIES AND INFORMATION CENTERS**

**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the basic concept of management including Human Resource Management, Financial Management and its applicability in library operations. The students will also learn about stress management, time management, change management and project management.

**Course Outcome:**

1. Remember and understand the basic concepts related to library management
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

**UNIT-1 : BASICS OF MANAGEMENT**

- 1.1 Management: Concept, Administration vs. Management & Functions of Management (POSDCORB)
- 1.2 Management Schools of Thought: Classical, Neoclassical and Modern Management Theory
- 1.3 Principles of Management: Scientific Principles & Administrative Principles
- 1.4 Application of Management Principles in Libraries
- 1.5 Management Information System (MIS)

**UNIT-2: MANAGEMENT OF LIBRARY HOUSE KEEPING OPERATIONS**

- 2.1 Different Sections of libraries and information centers and their functions
- 2.2 Acquisition Procedures: Selection Principles Ordering and Accessioning
- 2.3 Technical Processing: Classification, Cataloguing and Physical Processing
- 2.4 Serial Control, Circulation and Maintenance
- 2.5 Stock Verification and Weeding: Policies and Procedures

**UNIT-3 : HUMAN RESOURCE MANAGEMENT**

- 3.1 Human Resource Management: Concept and Importance
- 3.2 Human Resource Planning: Estimating Manpower Requirements

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- 3.3 Methods of Manpower Planning Job Analysis, Job description, Recruitment, Selection, Induction & Deployment
- 3.4 Human Resource Development: Performance Appraisal, Training & Development

UNIT-4: FINANCIAL MANAGEMENT AND TQM

- 4.1 Sources of Finance
- 4.2 Budgeting: Concept, Types of budgets-Line, ZBB, PPBS
- 4.3 Total Quality Management (TQM): Its Concept, Contribution of TQM Pioneers
- 4.4 Quality Indicators in LIS: LibQUAL, ISO-9000

UNIT-5 : LATEST TRENDS IN LIBRARY MANAGEMENT

- 5.1 Stress Management: Meaning, Concept
- 5.2 Time Management : Meaning, Concept
- 5.3 Project Management: Meaning, Concept
- 5.4 Change Management: Meaning, Concept
- 5.5 Leadership: Concept, Types, Quality.

**Course No:P-205 : COMPUTER APPLICATION PRACTICAL**

**(FM: 50/2 Credits)**

**Course Objective:**

The objective of this course is to train the students with the use of software related to office automation and library automation. The students will also acquaint with few programming languages and use of database management systems.

**Course Outcome:**

1. Remember and understand the basic concepts of programming language and software related to library automation.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

UNIT-1 USE OF SYSTEM SOFTWARE AND APPLICATION SOFTWARE

- 1.1 WINDOWS-7, Linux
- 1.2 MS-Word, EXCEL, POWERPOINT, MS-ACCESS

UNIT-2 PROGRAMMING LANGUAGE AND DATABASES

- 2.1 Basic Programming in HTML, C
- 2.2 DBMS, RDMS, MS-ACCESS, MY-SQL

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**Course No: P-206: LIBRARY AUTOMATION PRACTICAL**

**(FM: 50/2 Credits)**

**Course Objective:**

The objective of this course is to train the students with the use of software related to office automation and library automation. The students will also acquaint with few programming languages and use of database management systems.

**Course Outcome:**

1. Remember and understand the basic concepts of programming language and software related to library automation.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course.

**Course Content:**

UNIT-2 HANDS ON EXPERIENCE WITH LIBRARY AUTOMATION SOFTWARE (ANY ONE)

- 2.1 New GENLIB
- 2.2 E-Granthalaya
- 2.3 Koha

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# Library Science & Information Science.

Course No. IDC      **RESEARCH ETHICS AND PLAGIARISM**

## UNIT-1: RESEARCH ETHICS

- 1.1 Research ethics: Definition, moral philosophy, nature of moral judgements and reactions.
- 1.2 Ethics in Academic Writing
- 1.3 Academic Integrity: meaning and fundamental values
- 1.4 Academic dishonesty: manipulation and falsification of research data

## UNIT-2: PLAGUE OF PLAGIARISM

- 2.1 Plagiarism: definition, meaning and forms of plagiarism
- 2.2 Types of plagiarism
- 2.3 Avoiding plagiarism
- 2.4 Plagiarism Policies, Penalties and Consequences

## UNIT-3: DEALING WITH PLAGIARISM

- 3.1 Plagiarism detection tools
- 3.2 Anti-plagiarism software: functions and features
- 3.3 Anti-plagiarism software: Turnitin, Urkund
- 3.4 Online tools for plagiarism detection

## UNIT- 4: PUBLICATION ETHICS

- 1.1 Publication ethics: definition and introduction
- 1.1 Publication misconduct: definition and concept
- 1.1 Predatory publishers and journals

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## THIRD SEMESTER

### Course No: P-301: INTERNET AND WEB RESOURCES

(FM: 100/4 Credits)

#### Course Objective:

The objective of this course is to familiarize students with a broad range of Web based information sources, i.e., Online Database, E-books, E-journals, E-prints, E-databases and to acquaint students with various internet based information resources such as Library Consortia, Open access resources and OA initiatives in India. Students will get detailed idea about various Subject Based Information Sources on web.

#### Course Outcome:

1. Remember and understand the basic concepts related to Internet and Web resources
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

#### Course Content:

#### UNIT-1

#### GROWTH OF INTERNET AND WEB RESOURCES

- 1.1 Internet: Definition & Concept, inception, growth and development
- 1.2 Basic Internet services-E-Mail, FTP, Telnet, IRC, News groups
- 1.3 Web Browser: Concept, function; Features of Internet Explorer & Firefox

#### UNIT-2

#### INTERNET AND ORGANIZATION OF WEB RESOURCES

- 2.1 Organization of Web Resources: Classification & Cataloguing
- 2.2 Selection and Acquisition of Web Resources: Need, Standards, and Criteria
- 2.3 Online Database: It's Concept and Taxonomy-Bibliographic, Full text, Numeric, Citation Searching

#### UNIT-3

#### INTERNET BASED INFORMATION RESOURCES

- 3.1 E-resources on the Web, E-books, E-journals, E-prints, E-databases
- 3.2 Open Access initiatives: Philosophy, grounds of OA, benefits, OA initiatives in India
- 3.3 Library Consortia: Definition, need, function; Library consortia initiatives in India

#### UNIT-4

#### SUBJECT BASED INFORMATION SOURCES

- 4.1 Web based Social Science Information
- 4.2 Web based Information Sources in Health and Medicine
- 4.3 Web based Information Sources in Business Management
- 4.3 Web Based Information Sources in Engineering

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- 3.2 Digital Library Components: Identifiers – Handles – Digital Object Identifier (DOI) Persistent Uniform Resource Locator (PURL), Interoperability, Security
- 3.3 Digital Library Software: Open Source – GSDL & DSpace
- 3.4 User Interface for DL – Need, Design principles for effective user interface

**UNIT-4 INFORMATION MANAGEMENT AND ACCESS**

- 4.1 Metadata: Role of Metadata in Digital Resource Management; Metadata Harvesting
- 4.2 Metadata Schemas: Generic Schemas: DCMI, MODS, TEI; Domain Specific Schemas: METS, VRA Core
- 4.3 Information Access in Digital Libraries-Open Access
- 4.4 Information Discovery in DL– Harvesters and Federated Search Engines, OAIPMH, OpenURL, Web Portals

**Course No: P-303: : RESEARCH METHODOLOGY (FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the basic concept of research methodology including research types and various methods, tools, techniques used in LIS research. The students will also be familiar with the concept of citation analysis and bibliometric study.

**Course Outcome:**

1. Remember and understand the basic concepts related to Research Methodology and Bibliometrics
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

**UNIT-1 FUNDAMENTAL CONCEPTS OF RESEARCH**

- 1.1 Research-Definition, Concept, Elements, Functions, Purpose and Scope
- 1.2 Research and its Classification - Pure Vs Applied Research, Individual Vs Collaborative, Interdisciplinary Vs Multidisciplinary, Team, Relay Research
- 1.3 Factors to be considered in determining Research Problems

**UNIT-2 RESEARCH METHODS AND DATA COLLECTION**

- 2.1 Methods of Research: Survey Method, Case Study Method and Delphi Techniques
- 2.2 Scientific Method-Its Concept, History and Procedural Steps
- 2.3 Methods of Data Collection: Primary data- Questionnaire, Interview and Observation 2.4 Secondary data; Historical/Recorded data

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3.3 Anti-plagiarism software: Turnitin, Urkund

3.4 Online tools for plagiarism detection

#### UNIT- 4: PUBLICATION ETHICS

1.1 Publication ethics: definition and introduction

1.1 Publication misconduct: definition and concept

1.1 Predatory publishers and journals

#### Course No: P-305: DIGITAL LIBRARY PRACTICAL

(FM: 50/2 Credits)

##### Course Objective:

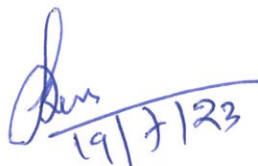
The objective of this course is to provide hands on experience to students on library software especially used for bibliographic data management and building digital libraries. The students will also be trained with how to install, customize and use different applications of the software.

##### Course Outcome:

1. Remember and understand the basic concepts related to library softwares for Digital Library, Content Management and reference management
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

##### Course Content:

UNIT-1	DIGITAL LIBRARY SOFTWARE
	2.1 GSDL
	2.2 D-Space
UNIT-2	CONTENT MANAGEMENT SOFTWARE
	1.1 Joomla
	1.2 Drupal
UNIT-3	Reference Management Software
	3.1 Mendeley
	3.2 Zotero

  
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## FOURTH SEMESTER

Course No:P-401: PRESERVATION AND CONSERVATION OF LIBRARY RESOURCES  
(FM: 100/4 Credits)

### Course Objective:

The objective of this course is to make the students familiar with the concept of preservation of different types of library materials. The students will also learn about digital preservation and various digital preservation initiatives.

### Course Outcome:

1. Remember and understand the basic concepts related to preservation and conservation of library materials.
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

### Course Content:

#### UNIT-1 CONCEPT OF PRESERVATION AND CONSERVATION

- 1.1 Preservation and Conservation: Concept, Need & History
- 1.2 Evolution of Writing Materials
- 1.3 Inherent characteristics of the Library Materials – Manuscripts, Books, Periodicals and Newspapers

#### UNIT-2 HAZARDS TO LIBRARY MATERIALS

- 2.1 Environmental Factors – Temperature, Humidity, Light and Dust
- 2.2 Biological Factors – Fungi, Insects and Other Pests
- 2.3 Chemical Factors – Chemicals used in Production and Preservation of Documents

#### UNIT-3 PREVENTIVE METHODS OF PRESERVATION OF LIBRARY RESOURCES

- 3.1 Preventive Measures for Environmental Factors
- 3.2 Preventive Measures for Biological and Chemical Factors
- 3.3 Disaster Preparedness/Response
- 3.4 Care and Handling of Library Resources

#### UNIT-4 NON-BOOK MATERIALS AND THEIR PRESERVATION

- 4.1 Variety of Non-Book Materials
- 4.2 Physical Environment for Storing of Non-Book Materials
- 4.3 Care and Handling of Non-Book Materials

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UNIT-5 CURRENT TRENDS IN PRESERVING THE LIBRARY MATERIALS

- 5.1 Digital Preservation: It's Need
- 5.2 Challenges and Strategies for Preserving Digital Contents
- 5.3 Role of International/National Organisations
- 5.4 Indian Initiatives towards Digital Preservation

**Course No: P-402 : INFORMATION NEEDS AND SEEKING BEHAVIOUR**

**(FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the basic concept of information seeking behavior and information literacy. The students will also learn different techniques of user studies and methods of user education programmes.

**Course Outcome:**

1. Remember and understand the basic concepts related to Information needs and Seeking Behaviour
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

UNIT-1 TYPES OF USERS AND THEIR NEEDS

- 1.1 Composition of User Community
- 1.2 Classification of Users: Planners, Policy Makers, Managers, R&D Personnel, People at Grass Root, Academics
- 1.3 Assessment of Information Needs of Users

UNIT-2 METHODS AND TECHNIQUES OF USER STUDIES

- 2.1 User Study: Its Need, Types, benefits, and Steps in Planning User Studies, impact on LIS 2.2 Questionnaire Method
- 2.3 Case Study Method & Interview Method
- 2.4 Observation Method and Survey Method

UNIT-3 INFORMATION SEEKING AND USES OF INFORMATION

- 3.1 Information Seeking Behaviour (ISB): Concept and Models
- 3.2 Information Seeking Behaviour of different user groups
- 3.3 Uses of Information in various activities: Management activities, Decision Making, R & D, Teaching & Learning, social development

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- UNIT-4 USER EDUCATION AND EVALUATION OF USER STUDIES
- 4.1 User Education: Concept, need,
  - 4.2 Methods of User Education
  - 4.3 Evaluation of User Studies: Definition, Need, and Criteria
  - 4.4 Methods and Steps in Evaluation

- UNIT-5 INFORMATION LITERACY
- 5.1 Information Literacy: Meaning and Concept
  - 5.2 Salient Features of Information Literacy
  - 5.3 Digital Information literacy and Library Users

**Course No: P-403: ELECTRONIC RESOURCE MANAGEMENT (FM: 100/4 Credits)**

**Course Objective:**

The objective of this course is to introduce the students with the basic concept of electronic resources, and Electronic Resource Management System (ERMS). The students will be acquainted with the application, workflow and technology framework of popular ERMS.

**Course Outcome:**

1. Remember and understand the basic concepts related, to Electronic resource management
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

- UNIT-1 INTRODUCTION TO E-RESOURCES
- 1.1 Electronic Resources: Definition, Emergence, features, advantages and disadvantages, Print vs E-resources
  - 1.2 Types of E-Resources: Databases, E-Books, E-Journals, Multimedia objects, E-references, Scholarly materials, Subject Guides, Web Search Tools, Subject Gateways
  - 1.3 Effective E-Resource Framework, E-Resource Life Cycle
- UNIT-2 ELECTRONIC RESOURCE MANAGEMENT SYSTEM (ERMS)
- 2.1 ERMS: Concept, need, features, types, functional requirements, benefits
  - 2.2 Application Modules of ERMS
  - 2.3 ERM Technology Framework: Open URL, DLFERM
- UNIT-3 ERM WORKFLOW
- 3.1 Principles and Policies of E-Resource Development, Selection, Licensing, Renewal, Deselection
  - 3.2 Acquisition, Technical Services, Delivery, ILL, Marketing and maintenance
  - 3.3 Content Providers, Library-vendor relation, and collaboration

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- UNIT-4 USAGE, EVALUATION AND IPR
- 4.1 Use Statistics-COUNTER, Citation Studies, Observation Logs, Interviews and Focus Groups
  - 4.2 Evaluation of E-Resources: Need, Criteria and Methods
  - 4.3 Copyright, Fair use, Relevant Acts, Digital Rights Management (DRM)
- UNIT-5 ARCHIVING AND PRESERVATION
- 5.1 E-Archives: Meaning, Features, Registry Models
  - 5.2 Preservation of E-Resources: Meaning, Challenges, issues and strategies
  - 5.3 Preservation Policies, Preservation Initiatives-LOCKS and CLOCKS

**Course No: P-404 : OPEN ACCESS SCHOLARLY COMMUNICATION**

**(FM: 100/4 Credits)**

**Course Objectives:**

The objective of the course is to help students to understand the concepts of Open access, its benefits & different paths or routes of open access. It aims for helping students to understand importance of Open Licenses and Open Educational Resources.

**Course Outcome:**

1. Remember and understand the basic concepts related to Open Access and Open Educational Resources
2. Analyse the Various Concepts to understand them through case studies
3. Apply the knowledge in understanding practical problems
4. Execute/create the Project or field assignment as per the knowledge gained in the course

**Course Content:**

- UNIT-1 INTRODUCTION TO OPEN ACCESS
- 1.1 Open Access: Definition, Purpose, Merits and pitfalls
  - 1.2 Philosophy and history of Open Access
  - 1.3 Open Access types- Gold, Green, Diamond, Hybrid, Bronze and Black
  - 1.4 Advocates of Open Access
- UNIT-2 OPEN ACCESS INITIATIVES
- 2.1 Open Access Conventions- Budapest, Bethesda and Berlin
  - 2.2 Global Open Access initiatives
  - 2.2 OA initiatives in India
  - 2.3 OA Policies and Mandates in India

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- UNIT-3 POPULAR OPEN ACCESS RESOURCES AND INSTITUTIONAL REPOSITORIES  
 3.1 Open Access Digital Resources: arXiv, PubMed, Shodhganga  
 3.2 Networked Digital Library of Theses and Dissertations (NDLTD), Directory of Open Access Journal (DOAJ), Directory of Open Access Books (DOAB), Directory of Open Access Repositories (DOAR)  
 3.3 Institutional repositories: Definition, objectives, purpose, technology and workflows.
- UNIT-4 OPEN LICENSES  
 4.1 Introduction to Open Licenses, Need and Purpose  
 4.2 Guide to Open Licensing, Principles and features  
 4.3 GNU Open License for documents  
 4.3 Creative Common Licenses- features and types
- UNIT - 5 OPEN EDUCATIONAL RESOURCES (OER)  
 5.1 Introduction to OER, Definition, types, features, forms, benefits  
 5.2 OER Platforms in India- SWAYAM, NPTEL, E-PG Patshala  
 5.3 Major International OER Platforms  
 5.4 OER Policy- objective, elements, execution- a few case studies

**Course No: P-405 : PROJECT WORK**

**(FM: 100/4 Credits)**

Project Work of 4<sup>th</sup> semester will be assigned to the students (jointly or individually) at the beginning of the Third

Semester and will be completed in the Fourth Semester. The distribution of the works/marks will be as follows

Semester wise work and distribution of marks (in %) for the project			
Third Semester (20%): Evaluation of interim Report of the Project Work			
Background of the problem (5%)	Review of Literature (5%)	Objectives (5%)	Methodology (5%)
Fourth Semester (80%): Evaluation of Final Report of the Project Work			
Project Work (50%)		Viva-voce (30%)	

The Evaluation and Viva-voce of the Final Project Report will done jointly by the Internal and External Examiners.

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 Greena 19/7/23