SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH
(A Deemed to be University Declared under Section 3 of UGC Act, 1956)
Comprising Sri Devaraj Urs Medical College
[Constituent Unit of Sri Devaraj Urs Educational Trust for Backward Classes (Regd.)]
TAMAKA, KOLAR-563103, KARNATAKA, INDIA
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(With effect from 2015-16 batches)

Curriculum for Masters in Library and Information Science

Dean
Faculty of Allied Health Sciences
Sri Devaraj Urs Academy of
Higher Education & Research
Tamaka, Kolar-563 101

Based on Approval BOM- 34-2015, (Resolution No-XXXIV-06/15 (h)) Dated-19/06/2015

REGULATIONS AND CURRICULUM GOVERNING 2015-16

In Master of Library and Information Science

Credit Based System

Under Faculty of Allied Health Sciences

Sri Devaraj Urs Academy of Higher Education and Research
SDUAHER Campus, Tamaka, Kolar-563101, Karnataka, INDIA
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2015

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

VISION

University of excellence: " Knowledge for Posterity".

MISSION

- To be a global center of excellence for Teaching, Training and Research in the field of Higher Education.
- To inculcate scientific temper, research attitude and social accountability amongst faculty and students.
- To promote with value based education for the overall personality development and leadership qualities to serve the humanity.
-

OBJECTIVES

The objectives of the Academy shall be:

- To provide need based infrastructure and facilities to students to become responsible professionals with social commitment and accountability.
- To implement effectively innovative programmes in teaching learning and evaluation.
- To impart scientific and socio cultural temperament among students to forge National identity and needs.
- To provide instruction and training in basic and advanced branches of learning.
- To provide facilities for research for the advancement and dissemination of knowledge.
- To undertake extra mural studies, consultancy, extension programmes and field outreach services for the development of society.
- To collaborate with other Universities, Institutions of excellence and Research Organizations within the country and outside for the purpose of teaching, training and research.
- To undertake need based activities for the betterment of socially and educationally backward society.

At a glance this logo is abstract, yet it contains the vital ingredients for an institution like Devaraj Urs Academy of Higher Education & Research.

The Institution's medical background, humanitarian values, compassions, approachability, social commitment and the subsequent research towards the most precious thing, the human life, is the core theme.

The graphic form a person in the centre of a bud which represent humanity. It denotes the growing process of life and its existence. And the two hands safeguarding them show the care and a sense of security. It is also capable of holding something within the vast expanse of knowledge by the University for the People's Benefit. Hence, the motto "Knowledge for Posterity" is very appropriate and gives a punch in Red. The four light blue half cricles (smaller to bigger) depict the unending quest for knowledge and imparting it to a wider horizon, growing higher and higher.

And finally, the whole unit is embedded in a "D" shaped graphic templet as background to give it a corporate identity.

COLORS USED:

Deep Blue: Credible, Confident and dependable. Represents Peace, tranquility, stability, harmony, trust security, cleanliness and loyalty

Light Blue: for Sky and water (colour scheme for 4 half circles)

Red: A dominant colour for strengths.

Green: for nature, health and generosity. It's cool quality and has great healing powers.

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
Comprising Sri Devaraj Urs Medical College
A-DEEMED-TO-BE-UNIVERSITY
Declared under Section 3 of UGC Act, 1956, MHRD GOI No.F.9-36/2006-U.3(A) Dt. 25th May 2007
POST BOX NO.62, TAMAKA, KOLAR-563 101, KARNATAKA, INDIA
Ph:08152-243244, 210604, 210605, Fax:08152-243008, E-mail: registrar@sduu.ac.in/office@sduu.ac.in, website: www.sduu.ac.in

No: SDUAHER/KLR/ADMN/ 2050 / 2015-16 **Date: 03.08.2015**

NOTIFICATION

Sub: Regulations and Curriculum for **Master of Library and Information Science** – reg.

Ref: 1. Proceedings of the 21st meeting of Academic Council held on 25.04.2015.
2. Proceedings of the 34th meeting of Board of Management held on 19.06.2015.

Sri Devaraj Urs Academy of Higher Education and Research was declared as Deemed to be University under Section 3 of UGC Act, 1956, MHRD GOI No.F.9-36/2006-U.3(A), Dated 25th May 2007. In accordance with the resolutions of 21st meeting of Academic Council and 34th meeting of Board of Management, it was decided to approve Regulations and Curriculum for the Master of Library and Information Science

In exercise of the power conferred on the University under Section 6 of MoA rules as per UGC Regulations – 2010, the University is pleased to notify the Regulations and Curriculum for students admitted to course of Master of Library and Information Science from the academic year 2015-16.

By Order,

Sd/-
Registrar

Sri Devaraj Urs Academy of Higher Education and Research

Tamaka, Kolar, Karnataka 563101

Regulations and Curriculum for
M.Lib.I. Sc (Master of Library and Information Science)
Credit Based System

SECTION

INTRODUCTION

1. INTRODUCTION

Master of Library and Information Science is a discipline which includes the intersection of information science, computer science and health science. It deals with the resources, devices and methods required to optimize the acquisitions, storage, retrieval, use and more importantly the health science information management.

Library and Information Science is being conducted in more than 200 Universities in the country, wherein, SDUAHER is offering exclusively the specialized program in Master of Library and Information Science to meet the specialized need of the Libraries and Information Centers of Health Science Universities, Colleges, Institutions, Hospitals, Research Organization, Pharmaceutical Industries, Governmental and Non-Governmental Organizations etc.

Health Science librarians and information managers play a vital role in making medical knowledge accessible to health professionals, academicians, researchers, policy makers etc. The role of health science librarians need to be sharply enhanced, as today's rapidly changing health care environment increases the demand for more effective management of information in the form of patient education materials, clinical practice guidelines, decision support systems, computer based patient records and many such related practices.

2. AIMS, OBJECTIVES AND SCOPE

The Master of Library and Information Science is meant to impart higher skills, training and knowledge for the students and the purpose of the program is also to support those who are already in service at different type of health science libraries, in their professional development and betterment of employment

Manpower studies conducted by various experts in the field of health science librarianship have revealed that there is a great need for highly trained manpower of managerial cadres to organize and manage the different health science libraries and information centers in the country. Presently, none of the universities in India are offering the specialized Post Graduate Programs in Master of Library and Information Science. The aim of this course is to meet the need and demand for the such quality manpower.

Presently there are about 4000+ health science academic institutions in the country and 650 health science academic programs, which needs manpower specialized in health information management to manage the libraries effectively and efficiently in line with emerging tools and technologies. Hence, there is a huge demand for qualified Librarians and Health Information Managers to equip and render the quality oriented professional services.

Master of Library and Information Science is multidisciplinary in nature, Biomedical librarians will function over the next decade in ways shaped by a number of significant factors such as changing elements and structures of medical information and rapid introduction of new technologies and techniques for information handling.

The candidate at the end of the course shall be able to:

- Improve the health science library and information services with the help of improved knowledge and the state-of-the-art training
- Develop and upgrade professional skills among his staff
- Meet the information demands and requirements of the health science professionals in their education, research, or practice
- Develop healthy interpersonal relation with health science professionals
- Develop the latest and the most relevant information handling tools and techniques
- Improve following areas of study which are essential for effective and efficient work by health science library and information professionals.

- Domain specific knowledge
- Communication skills
- Leadership and Managerial skills
- Effective understanding of communication in health sciences
- E-learning
- Understanding of Users: methods
- Information search & retrieval
- Specialized information resources in health sciences

Section – II

Regulations for the Post Graduate Degree Course leading to "Master of Library and Information Science"

1. **Eligibility:** A Candidate who has passed the Degree examination in Health Science / Life Science / Pure Science / Computer Science / Applied Science of any Indian University established by law in India and who has scored not less than 50% of the maximum marks prescribed in the qualifying examination shall be eligible for admission to the Master of Library and Information Science. For SC/ST/Category-I candidates, the prescribed percentage of marks will be 50% of the maximum marks in the qualifying examination.

2. **Duration:** The course of study including submission of dissertation on the research topic assigned shall be of 2 years (consisting 4 semesters) duration from the commencement of the academic term (August to September). The calendar of events for the respective academic years shall be determined and notified by the university separately.

3. **Admission:** The sanctioned intake for Master of Library and Information Science course shall be **ten** candidates as per the categories given below:

GM	04
SC/ST	02
OBC	02
Deputed candidates	02
Total	10

[Note: If there are no candidates available from deputation, OBC or SC//ST category, the seats may be given to GM candidates]

4. **Selection Procedure:** The selection of the eligible candidates shall be made in the order of merit in qualifying degree examination and entrance test. The entrance test shall consist of objective type questions for 50 marks with one hour duration.

5. **Fee Structure for M.Lib. & I.Sc Course:** Rs. 20,000.00 per annum. Examination Fee as applicable in other PG Degree Courses at SDUAHER shall be followed.

6. **Course Curriculum:** The curriculum of Master of Library and Information Science shall be of semester system extending for 24 months from the commencement of the academic term (August to September) designed on the basis of CBCS. There shall be a university semester examination at the end of the every semester, the candidate shall submit a guided dissertation work one month before the completion of the 4th semester.

7. **Teaching of Hours:**

1st semester

Total number of hours:	604
Holidays etc.	60
Visits and Tours:	63
Examination, tests etc.:	90
Remaining hours for study:	650

2nd semester

Total number of hours:	555
Holidays etc.	60
Visits and Tours:	63
Examination, tests etc.:	90
Remaining hours for study:	650

3rd semester

Total number of hours:	541
Holidays etc.	60
Visits and Tours:	63
Examination, tests etc.:	90
Remaining hours for study:	650

4th semester

Total number of hours:	440
Holidays etc.	60
Visits and Tours:	63
Examination, tests etc.:	90
Remaining hours for study:	650

Semester	Paper	Theory (Hrs.)	Practicals (Hrs.)
Sem-1	1.1	130	86
	1.2	126	
	1.3	165	
Sem-2	2.1	145	120
	2.2	145	
	2.3	145	
Sem-3	3.1	145	106
	3.2	145	
	3.3	145	
Sem-4	4.1	125	230
	4.2	85	
	4.3		
Total	**12**	**1501**	**542**

10. Attendance: Candidate who has put in a minimum of 80% of attendance in all the theory and practical assignments separately shall be permitted to appear for examination.

11. Examination: There shall be an examination at the end of every semester, which includes theory, practicals, evaluation of project work and viva-voce.

a. **Scheme of Examination:** There shall be a minimum of two internal assessments in each subject conducted at the end of every semester, both in theory and practicals. The marks for internal assessments shall be 20 for each of the theory papers and 20 for the practicals.

b. **University Examination:** There shall be 4 university examinations at the end of the each semester during the course duration of 2 years,

1st Semester:	3 theory papers
	1 extracurricular paper
2nd Semester:	3 theory papers
	1 practical
3rd semester:	3 theory papers
4th Semester:	2 theory papers
	1 Practicals
	1 open elective
	1 dissertation

Each paper would be of three hours duration carrying 100 marks. A candidate has to score a minimum 50% of maximum marks in each subject (theory and practicals) including internal assessment for passing the examination. Candidates who fail in one or more subjects may appear only in the failed subjects in the subsequent examinations. Maximum no. of attempts permitted for each paper is 4 including first attempt. The maximum period to complete the course successfully should not exceed 4 years.

c. Distribution of Marks: The marks for theory, practicals, dissertation work and viva-voce shall be as under:

Year	Semester	Paper	Subjects	Theory	Internal Assessment	Total
1st Year	Sem-1	1.1	Foundations of Library and Information Science	80	20	100
		1.2	Knowledge Organization and Indexing system.	80	20	100
		1.3	ICT And Its Application To Libraries - Library Automation and Digital Library	80	20	100
	Sem-2	2.1	Information Sources, Systems and Services	80	20	100
		2.2	Management of Libraries and Information Centers	80	20	100
		2.3	Practical	80	20	100
2nd Year	Sem-3	3.1	Health Information Systems, Sources, Services and Management	80	20	100
		3.2	Database Systems & Information Retrieval	80	20	100
		3.3	Web, Networking and Emerging Technologies	80	20	100
	Sem-4	4.1	Research Methods and Biostatistics	80	20	100
		4.2	Practical	80	20	100
		4.3	Dissertation	80	20 Viva-Voce	100
	Total	**12**				**1200**

Panel of Examiners: There shall be two examiners, one internal examiner who may be the concerned guide as far as possible and one external examiner who has a doctorate in library and information science with over 5 years of teaching/practicing experience listed in the approved panel of examiners by the University.

d. Minimum Marks for Passing Examination: The minimum percentage of marks for passing shall be as under:

I Year (2 Semesters)

50% in aggregate i.e.,	300/600
50% in theory papers i.e.	250/500
50% in practicals	100/200

(Including viva-voce, seminar and practical)

II Year (2 Semesters)

50% in aggregate i.e.,	300/600
50% in theory papers i.e.	200/400
50% in practicals	50/100
50% in dissertation	50/100

(Including viva-voce, seminar and dissertation)

e. Class Declaration: Class shall be declared on the basis of the aggregate marks scored as under, provided the candidate has passed the university examination in first attempt

A Grade - 75% and above	Distinction
B Grade - 60 to 74%	First Class
C Grade – 50 to 59%	Pass
D Grade – Less than 50%	Fail

FIRST SEMESTER

Credit Based System

1.1.Foundations of Library and Information Science

Unit-1	Historical Development of Libraries-it origin, evolution and importance
Unit-2	Information, Data and Knowledge; Evolution of Information Science as a discipline and its relation with cognitive sciences, library science, computer sciences and other disciplines; Information and Knowledge Society.
Unit-3	Information Institutions of different kinds; their objectives; the library as a social Institutions; different type of Libraries and their functions
Unit-4	Normative principles of library and information science; The Five Laws of Library Science and their implications.
Unit-5	Information and communication; Models, Channels and barriers; Diffusion of Innovations; Trends in scientific communication
Unit-6	Legislative framework for library development and information provision; Public library legislation; Delivery of Books Act; Right to information, IPR, National Information Policy; Components; National Information / Library infrastructure
Unit-7	The information profession; Professional bodies (national and international and their role.

Library Work-40hrs

Reference Books:

1. Daniel T Richards, Dottie Eakin. Collection Development and Assessment in Health Sciences Libraries. Vol. 4. Chicago: MLA. 1997; p360. ISBN: 0-8108-3201-1
2. Singh S K. Library Technical Services: Millennium Approach New Delhi, Author press, 2000.
3. Burahohan, A. (2000).Various aspects of librarianship and Information Science. New Delhi: ESS ESS.
4. Chapman, E.A. and Lynden, F.C. (2000). Advances in librarianship. 24th Vol. San Diego: Academic Press.
5. IFLA (1977). IFLA standards for Library service, 2nd Ed. Munich: Verlag.
6. Isaac, K.A. (2004). Library legislation in India: A critical and comparative study of state Library acts book description: New Delhi: Ess Ess Publication.
7. Khanna, J.K. (1987). Library and society. Kurukshetra: Research Publisher.

8. Kumar, P.S.G.(2003) Foundations of Library and Information Science. Paper I of UGC Model Curriculum. New Delhi: Manohar.
9. Kumar, P.S.G. (1997). Fundamentals of Information Science. Delhi: S. Chand.
10. Parekh, H. (2007) Five laws of Library Science: Continuing foundations in an Information society, DLIBCOM, 2(8-9), p.7-9.
11. Ranganathan, S.R. (1957). Five laws of Library Science. 2nd Ed., Bangalore: Sarada Ranganathan Endowment for Library Science.
12. Ranganathan, S.R. (1999). The Five Laws of Library Science, 2nd Ed., Bangalore: Sarada Ranganathan Endowment for Library Science.

1.2. Knowledge Organization and Indexing System

Unit-1	History of Library Classification; Mapping of universe of subject in major schemes of Library Classification; species of Classification.
Unit- 2	General Theory of Classification; Normative Principles; The three Planes of work.
Unit-3	Basic Concepts Principles and Postulates of Helpful Sequence; Facet Analysis and facet sequence. Notation; Kinds and Hospitality.
Unit-4	Trend in classification thesaurus facet, Classes, Automatic classification, classification in online systems Web Dewey. Taxonomy, Ontology, Folksonomies and concept of semantic web.
Unit- 5	Historical study of the evolution of cataloguing and catalogue codes, Union Catalogue
Unit-6	Bibliographic files of different kinds, their nature and functions; Bibliographic Entities and Bibliographic Records; Concept of "surrogate"; Evolution of the Physical and Inner forms of bibliographic files.
Unit-7	Standards for Bibliographic Organization, Unit 7 Catalogue Codes – AACR 2 with slant to RDA and FRBR Standards for Machine Readable Bibliographic Records – ISO 2709 and the MARC family of Formats, MARC XML; Retro conversion. Design of indexing languages / vocabulary control devices. Subject Cataloguing: Tools and Techniques – Lists of Subject Headings, Thesauri;
Unit-8	General theory of subject indexing languages (SIL); different systems of indexing – POPSI, Chain Indexing; PRECIS, Citation, Indexing, KWIC / KWOC etc. Computerization of classification / indexing; and computerized indexing systems: The notion of metadata. Metadata and metadata standards; Dublin Core, EAD, METS, VRA Core etc. Preparation of Bibliographic Records for different kinds of documents using appropriate standards and software; Filing of entries.

Library Work 40hrs

Reference Books:

1. Berwick Sayers, W.C. (1950). Introduction to Library Classification. London: Andra dautch.
2. Chernyi, A.I. (1973). Introduction to Information retrieval theory. London: ASLIB.
3. Dhyani, P. (1998). Library Classification: Theory and practice. New Delhi: Vishwa Prakashan.
4. Jennifer, E. R. (1987). Organising knowledge: An introduction to Information retrieval. Aldershot: Gower.
5. Krishan Kumar (1980). Theory of Library Classification, 2 Ed. New Delhi: Vikas.
6. Parkhi, R.S. (1977). Library Classification: Evolution of a dynamic theory. Bombay: Asia.
7. Kumar, P.S.G. (2003). Knowledge organization, Information processing and retrieval theory. Delhi: BR.
8. Ranganathan, S.R. (1960).Colon Classification, 6th ed. Bangalore: Sarada Ranganathan Endowment for Library Science.
9. Ranganathan, S.R. (1957 &1965). Prolegomena to Library Classification, Ed2, London: LA.
11. Ranganathan, S.R. (1999). The five laws of Library Science. Bangalore: Sarada Ranganathan Endowment for Library Science.Rijsbergen, C.J. V.(1070). Information retrieval, 2nd ed., London: Butterworths.
12. Sinha, S.C. & Dhiman, A.K.(2002). Prolegomena to universe of knowledge. New Delhi: ESS ESS.
13. Srivastava, A.P.(1993). Theory of knowledge Classification in Libraries. New Delhi: Sage.
14. Raju., A.A.N. (1985). Universal decimal and colon Classification.
15. Chan, Lois Mai and others: Dewey decimal classification. A practical guide. 2nd Ed. Albany, New York: OCLC.
16. Satija, M.P. and Comaromi, J.P.(1998). Exercises in the 21st Edition of Dewey decimal classification. New Delhi: Concept.
17. Latest Edition of Dewy Decimal Classification.

1.3. ICT and Its Application to Libraries - Library Automation and Digital Library

Unit -1	Information Technology: Components, impact on society.
UInit-2	Introduction to Boolean Operators, logic gates: AND, OR, NOT, NAND, NOR, EX-OR, Truth tables, Function representation in sum-of-product and product-of-sum forms. Basic components of a Computer
Unit-3	Operating Systems: Linux. Windows, Shell programming, Hypertext, Hypermedia, Multimedia and File formats. User Interfaces and data visualization. Word Processing Packages including open source packages, Desktop Publishing.
Unit-4	Information Technology – Issues for Information Professionals. Library Automation: Definition, need, purpose and advantages. Historical development. Approaches to Library Automation, Planning for Library automation.
Unit-5	Formats and Standards – Historical Background, UNIMARC, CCF, MARC-21, SGML, Dublin Core. Automation of Library operations, Acquisitions, Cataloguing, OPACs, Circulation and Serials Control. Evaluation of Library Automation systems. CDS/ISIS; Open Source Library Automation Systems. Case study of automation Systems,
Unit-6	Historical Development of Digital Libraries. Copyright and license issues. Digital Libraries: Digitization, Software, Hardware and best practices; Scanners and scanner types; optical character recognition and comparative study of OCR software. Open Standards and File Formats, Metadata and Metadata Standards. Digital Library Software: Features and comparative study of Dspace, Eprints, Greenstone and Fedora; Harvesting Metadata, OAI-PMH and DL Interoperability; Harvester software.
Unit-7	Digital Library Architectures' Grid architecture, Open URL integration Digital Preservation PREMIS. Persistent identifiers: DOI and CNRI Handles; Multilingual digital repositories and Cross-language information retrieval.

Library Work 40hrs

Reference Books:

1. Arvind Kumar. Ed.(2006). Information technology for all (2 vols.). New Delhi: Anmol.
2. Bansal, S.K.(2005). Information technology and globalisation, New Delhi: A.P.H. Publishing corporation.
3. Basandra , S.K(2002). Computers today, New Delhi: Golgotia.
4. Carter, R.(1987). The Information technology hand book, London : Heinemann.
5. Croucher, P.(1996). Communications and networks. 2nd ed. New Delhi: Affiliated East West.
6. Curtin, D.P. & others: Information technology: The breaking wave. New Delhi: TMH, Latest Edition.
7. Decson, E.(2000). Managing with Information technology. Great Britan: Koganpage Ltd.
8. Dhiman, A.K.(2003). Basics of Information technology for librarians and Information scientists, Vol.1. New Delhi: ESS ESS.
9. Forrester W.H. and Rowlands, J.L.(2002). The online searcher's companion. London: LA.
10. Gupta, V. (2005). Rapidix computer course. New Delhi: Pustak Mahal.
11. Hunter & Shelly(2002). Computers and common sense, New Delhi:s Prentice-Hall.
12. Jain, V.K.(1994). O Level Module I: Computer fundamentals. Delhi: BPB Publications.
13. Johri, A. & Jauhari, B.S. (1993). Computers today. Vol.1, Mumbai: Himalaya.
14. Kashyap, M.M. (2003). Database systems. New Delhi: Vikas.
15. Keren, C & Perlmutter, L,Ed.(1995). The application of mini and microcomputers inInformation, documentation, and Libraries. Amsterdam: Elsevier.

Under Extra-Curricular Activity

Personality Development, Public Relations and Communication skills

Introduction to Leadership

- Leadership Power
- Leadership Styles
- Leadership in Administration
- Introduction to Interpersonal Relations

Analysis Relations of different ego states

- Analysis of Transactions
- Analysis of Strokes
- Analysis of Life position Introduction to Communication
- Flow of Communication
- Listening

Barriers of Communication

- How to overcome barriers of communication
- Introduction to Stress
- Causes of Stress
- Impact Stress
- Managing Stress Importance of groups in organization
- Team Interactions in group
- Group Decision Taking
- Team Building
- Interaction with the Team
- How to build a good team?

Reference Books:

1. Gladis, S. D. (1993). Write type, personality types and writing styles. Amherst, Mass.: Human Resource Development Press.
2. Gupta, S. (2009). Personality development and communication skills. Jaipur, India: Book Enclave.
3. Kurten, N. (2010). Presentation skills for technical professionals achieving excellence.. Ely: IT Governance Publications.
4. Masters, L. A., Wallace, H. R., & Harwood, L. (2011). Personal development for life and work (10th ed.). Australia: South-Western Carnage Learning.
5. McCurry, J. H. (2002). The etiquette advantage: personal skills for social success. Wilmington, NC: Stellar Publications.

Practicals: 70hrs
Seminars / Journal Club/ Colloquia: 16hrs

SECOND SEMESTER

Credit Based System

2.1. Information Sources, Systems and Services

Unit -1	Information Sources – Documentary and Non- Documentary, Primary, Secondary and Tertiary Sources of Information and their Characteristics; Detailed Study of major types of secondary sources.
Unit -2	Reference Sources – Concept, Definitions and Trends; Bibliographical Sources – INB, BNB and Trade Bibliography, Yearbooks; Dictionaries; Bibliographical Sources; Encyclopedia; E-Reference Sources; Subject Gateways; Criteria for Evaluation of Reference Source; Subject Gateways; Criteria for Evaluation of Reference and Information Sources.
Unit -3	Different categories of information systems such as libraries, documentation centres, information clearing houses, referral centres, information analysis centres, databanks etc., their structure, functions, products, and services; Different kinds of information systems – Decision support systems, MIS, GIS etc.
Unit -4	Reference Services – Concept, Need, Purpose and Functions; types – Short Range and Long Range Reference. Major Operational Information Systems and Programs at the Global Level; Discipline / Mission oriented systems as well as Information systems specializing in different kinds of documents (Patents, Thesis & Dissertations and Research Reports etc).
Unit -5	E-Resources – E-books, E-journals etc; Advantages and disadvantages of E-resources over Physical Resources.
Unit -6	The Information User: Information needs, use and user studies. Information seeking behavior User Understanding the psychology of information user, categorization of user, identifying users and potential users; users by professional groups-industrial, commercial etc
Unit -7	Information user & user studies; Origin, development and evolution of user studies; the renaissance of user studies, the two generations of user studies. The first generation studies their characteristics, contributions and limitations; the second generation user studies: Their characteristics and contributions, Landmark and bench mark studies. Usage study. Methodology of user studies: Study of various methods and tools; survey methods and experimental approach; Questionnaire, interview and traditional tools / methods.
Unit -8	Information Products and Services: Document Delivery Translation; Current Awareness, SDI, etc. services; Trend Reports, Information Analysis and Consolidation Products and Services. Referral Service, Indexing and Abstracting Services. Multimedia resources, Portals, Wikipedia, Content Management, Subject Gateways. Multilingual Resources.

Library Work-40hrs

Reference Books:

1. Sandy Wood M. Editor. Reference and Information Services in Health Sciences Libraries. Vol. 1. Chicago: MLA, 1994; p394. ISBN: 0-8108-2765-4
2. Mary E Johnson., Editor. Library Services in Mental Health Setting. Chicago: MLA, 1997; p256. ISBN: 0-8108-3306-9
3. Jocelyn A Rankin. Handbook on Problem-Based Learning. Chicago: MLA.1998; p557. ISBN: 0-8281-1281-9
4. Daniel T Richards, Dottie Eakin. Collection Development and Assessment in Health Sciences Libraries. Vol. 4. Chicago: MLA. 1997; p360. ISBN: 0-8108-3201-1
5. Nicholas D. Assessing Information needs: Tools and Techniques. London: Aslib, 1996.
6. Mahapatra A.et al. Access to Electronic Information. Bhubaneswar: Society for Information Science, 1997.
7. Faruqi K K. Planning Library Buildings. London: Library Association, 1998.
8. Gorman G E,Clayton P. Qualitative Research for the Twenty-First Century. London: Aslib, 1997.
9. Panda B D. Research Methodology in Library Science: With Statistical Methods and Bibliometrics. New Delhi: Anmol, 1997.
10. Rai A N. Communication in the Digital Age. New Delhi: Author press, 2000.
11. Alan P., Gwyneth T. and Goff S.(1999). The Library and Information Professional's Guide to the World Wide Web. London : Facet Publishing.
12. Chowdhruy, G. G. and Sudatta Chowdhury(2001). Searching CD-ROM and Online Information Sources. London : Facet Publishing.
13. Chowdhury, G. G. and Sudatta Chowdhury(2001). Information Sources and Searching on the World Wide Web. London: Facet Publishing.
14. Gopinath, M.A.(1984). Information Sources and Communication Media. Bangalore: DRTC.
15. Bakewell, K.G.B. ([1969]). Industrial libraries throughout the world. Oxford, New York, Pergamon Press.

16. Carmel, M Ed.(1995). Health care librarianship and Information work. 2nd Ed.. London: LA.
17. Dixit, R.P.(1995).Information management in Indian medical Libraries. New Delhi: New Concepts.
18. Gupta, S.P. & others (1993). Information technology and health Science Libraries. MLAI Special Publication.
19. Malinowsky, H.R.(1994). Reference sources in Science, engineering, medicine and agriculture. Oryx Press.
20. Prudence W. Ed.(1993).: Library trends: Libraries and Information services in the health Sciences, Summer 1993. University of Illinois Graduate School.

2.2. Management of Libraries and Information Centers

Unit -1	Management – Meaning and definitions. Role, functions and principles of management. Schools of thought in management, Levels of management. Functional units of libraries
Unit -2	Financial and Records management. Importance, sources of finance, Mobilization of financial resources, Budgeting – methods and techniques, Costing Techniques, Cost Analysis, Annual Records. Importance of Statistical Data, Rules and Regulations.
Unit -3	Personnel Management, Meaning and importance. Job analysis and Job description. Staff selection and recruitment, Education and Training, Ranganathan's Staff Formula.
Unit -4	MBO, Project Management, SWOT Analysis, Disaster Management and LIC's Performance Evaluation of Libraries / Information Centres and Services. TQM – Principles, Elements, Benefits and its application in LIS
Unit -5	Marketing – Concept, Function, Information as Marketable Commodity, Demand and Supply, marketing Mix, Market Segmentations; Market Research / Analysis
Unit -6	Communication Skills, Marketing skills, Technical Writing and Leadership • Communication Skills • Listening Skills • Telephone Skills • Writing Skills • Career Skills • Soft Skills Motivation and Leadership, Job Evaluation and Performance Appraisal Marketing Skills

Library Work-40hrs

Reference Books:

1. Moodgal H M K, Kokila Krishna Gopal .CD-ROM Technology: Librarians 'Info Guide. New Delhi, Author press, 2000, p273.
2. Beardwell, I. & Holden, L. Ed.(1996). Human resource management: Contemporary perspective. New Delhi: McMillan.
3. Bratton, J. and Gold, J. (1994). Human resource management: Theory and practice. Basingstoke: Mac Millan.
4. Brophy, P. and Courling K.(1997). Quality management for Information and Library managers. Bombay: Jaico.
5. Bryson, J.O. (1996). Effective Library and Information management. Bombay: Jaico.
6. Edward, E. G.(1982). Techniques for librarians. NY: Academic,
7. Evans, E.G. Ed.(1986). Management Information systems. New Delhi: S. Chand & Co.
8. IASLIC (1979). Application of management techniques in Library and Information systems. (Conference Papers). Kolkata : IASLIC.
9. Katz, W.A.(1980). Collection development selection of materials for Libraries. New York: HRW.
10. Krishna Kumar (1987). Library administration and management. Delhi: Viaks.
11. Kumar, P.S.G. (2003). Management of Library and Information Centres. Delhi: B. R. Publishing corporation.
12. Mahapatra, P.(1997). Library management. Calcutta: World Press.
13. Mittal, R.L. (1984).Library administration: Theory and practice. 4 Ed. New Delhi: Metropolitan.
14. Paliwal, P.K. (2000). Compendium of Library administration. New Delhi: ESS ESS.
15. Paranjpe, V. (1997). Strategic human resource management. New Delhi: Allied.

16. Parker, C. and Café, T.(1993). Management Information systems: Strategy and action. New York: McGraw Hill.
17. Pearson, R.J. Ed.(1983). Management process: Selection of readings for librarians. Chicago: ALA.
18. Ranganathan, S.R. (1954). Library administration. Bangalore: Sharada Ranganathan Endowment for Library Science.
19. Siwatch, A. S.(2004). Library management: Leadership style strategies and organizational climate. New Delhi: Shree.
20. Stuert, R.D. and Moran, B.B.(2004). Library and Information center management. Colorado: Libraries unlimited.

2.3. Practicals: 130hrs

CC, DDC, UDC, NLM
AACR – II, MARC 21, Z39
Metadata and metadata standards,
Dublin Core, EAD, METS, VRA Core etc

Reference Books:

1. Anglo-American Cataloguing Rules (2002) 2nd Rev Ed.
2. MARC 21 and Related standards for Bibliographic Records. New York: LC.
3. http://dublincore.org
4. Raju. A.A.N. (1985). Universal decimal and colon Classification.
5. Sehgal, R.L. An Introduction to Universal Decimal Classification, New Delhi: K.K. Publications
6. Universal Decimal Classification. Medium English Edition. 2 Vols.

THIRD SEMESTER

Credit Based System

3.1. Health Information Systems, Sources, Services and Management

Unit -1	Overview of major information systems and services in health sciences; Definition and scope of Health Informatics; Social, Cultural, Legal and Ethical aspects of health data and information.
Unit -2	Nature of health data and information; Health Science Information Systems – Concept, Need and functions. MIS; Principles and Techniques of Management, information systems (MIS) as applied to hospitals, Pharmaceutical Industries.
Unit -3	System Analysis and Design; System Development, Implementation and Evaluation Knowledge Representation & Management in Health sciences; K M concepts – Evolution, Definition, Objective, Perspectives and Framework; KM and Learning Concepts.
Unit -4	Electronic Health Records Management Hospitals Information Systems Management Digital Rights Management Policies and Programs of Public Health Projects
Unit -5	National Information Systems like NISCAIR, DESIDOC and International Information System like MEDLARS, AGRIS, National Medical Library of India and National Library of Medicine, USA.
Unit -6	Medical Vocabularies and vocabulary system such as UMLS. Concepts of medical Transcription
Unit -7	Introduction to Bioinformatics, Molecular modeling, Genome databases, importance for new drug development GIS in Health Informatics, Monitoring Epidemics, /GIS for planning health care delivery systems.

Library Work-40hrs

Reference Books:

1. Sandy Wood M. Editor. Reference and Information Services in Health Sciences Libraries. Vol. 1. Chicago: MLA, 1994; p394. ISBN: 0-8108-2765-4
2. Nancy Britton Soth. Informed Treatment: Milieu Management in Psychiatric Hospitals and Residential Treatment Centres. Chicago: MLA. 1997; p520. ISBN: 0-8108-3202-X

3. Fred W Roper, Jo Anne Boorkman. Introduction to Reference Sources in the Health Sciences. 3rd ed., Chicago: MLA. 1994; p300. ISBN: 0-8108-2889-8
4. Lucretia W MeClure. Health Sciences Environment and Librarians in Sciences Libraries.Vol.8.Chicago: MLA, 1999.
5. Francine Feuerman, Marsha J. Handel. Alternative Medicine Resource Guide. Chicago: MLA. 1997. p352, ISBN: 0-8108-3284-4
6. Beryl Glitz. Focus Groups for Libraries and Librarians. Chicago: MLA.1998; p144. ISBN: 0-8281-1249-5
7. Jocelyn A Rankin. Handbook on Problem-Based Learning. Chicago: MLA.1998; p557. ISBN: 0-8281-1281-9
8. Francesca Allegri. Educational Services in Health Sciences Libraries. Editor. Chicago: MLA. 1995; p196. ISBN: 0-8108-3004-3
9. Carolyn Lipscomb. Editor. Information Access and Delivery in Health Sciences Libraries. Vol. 3. Chicago: MLA. 1996; p280. ISBN: 0-8108-3050-7
10. Daniel T Richards, Dottie Eakin. Collection Development and Assessment in Health Sciences Libraries. Vol. 4. Chicago: MLA. 1997; p360. ISBN: 0-8108-3201-1
11. David H Morse., Editor. Acquisitions in Health Sciences Libraries. Vol. 5; Chicago: MLA, 1996; p256. ISBN: 0-8108-3052-3
12. Urs Rama Raj R Networking of Health Science Libraries: Resources and Standards New Delhi: Jaypee Brothers Medical Publishers (P) Ltd. 2000. p179.
13. Chadha V R, Abadilla, T P. Feasibility Study on the Establishment of an Asian and Pacific Information Network on Medical and Aromatic Plants. Paris: Unesco, 1985.
14. Reichetz P L, Goos G. Editors. Information and Medicine: An Advanced Course. Berlin: Springer-verlag, 1997.
15. Nicholas D. Assessing Information needs: Tools and Techniques. London: Aslib, 1996.
16. Lancaster F W, Sndore B. Technology and Management in Library Information Services. London: Library Association, 1997.

3.2. Database Systems and Information Retrieval

Unit -1	Database – Definition, Concept, Components and Types; Database Structure – Logical Data Structure, physical Data Structure.
Unit -2	Introduction to DBMS – File management vs. database management, integrity and security issues. E-R models, Enhanced E-R models, Logical Database Design, Relational Database Model, normalization, SQL Implementation in MySql. Concurrency in databases; Basic Commands (Create, Delete, Update, Select, Insert etc.)
Unit -3	Object –Oriented Models, Multimedia Databases, Database Security – models, security implementation, relationship to web databases. Client –Server Architecture, Replication, Partitioning
Unit -4	Different types of storage media, physical level of a DBMS – use of B-trees, Trees. Overview of IR Systems, Historical Perspectives, Document Representation: Statistical Characteristics of Text, Basic Query Processing. Classic IR: basic concepts, Boolean model, vector model, probabilistic model; Precision, Recall and Fallout.
Unit -5	Alternative IR: set theoretic, algebraic models, and probabilistic models (Bayesian networks). Structured Text Retrieval Models: model based on non-overlapping lists and proximal nodes. Text operations: document [re-processing (word stemming, stop words, thesauri) document clustering.
Unit -6	IR Systems and the WWW, Heterogeneous Information Sources, Intelligent Web Agents. Evaluation of IR, Search methodology, algorithms, Cognitive IR modeling
Unit -7	Search vs. browsing; dynamic query formulation and reformulation. Query: keyword based querying, pattern matching, structural queries, query protocols; search strategy and prerequisite.

Library Work-40hrs

Reference Books:

1. Singh S K. Library Technical Services: Millennium Approach New Delhi, Author press, 2000.
2. Text Retrieval and Filtering: Analytic Models of Performance. Boston: Kluwer, 1998.
3. C.T. Yu and W. Meng, Principles of Database Query Processing for Advanced Applications. Calif.: Morgan Kaufmann Publishers, Inc.,1998.
4. R.A. Baeza-Yates and B. Ribeiro-Neto. Modern Information Retrieval. Addison-Wesley, 1999.
5. C.J. Date. An introduction to database systems. Addison-Wesley, 1981.

3.3. Web, Networking and Emerging Technologies

Unit -1	Internet and World Wide Web, Components, Services, Browsing, Search Engines, Website structure, Hosting Requirements, Webspace, Web servers; IIS, Apache etc., Mail Servers.
Unit -2	Website Creation HTML, XML, DHTML, XHTML,CSS W3 Standards and Protocols – http, TCP / IP, FTP, SSHD, POP3, SMTP, SOAP etc.
Unit -3	Search Engines, Cluster based search engines and building search engines. Search Algorithms, Security Issues, Search Engine Optimization. RSS feeds, Blogs, Open URK.CGI Programming, PHP, Java scripts, Java scripts and JSP, Database connectivity, ODBC, JDBC.
Unit -4	Networking – concepts, Type of networks; LAN, MAN and WAN. Networking Topologies; Star, Bus, Token, Ring, Hybrid. Networking Hardware, network layer protocols; the Internet Protocols (IP), IPv4 and IPv6.
Unit -5	Network level services: Name lookup and DNS Telnet. Connectivity; Integrated Services Digital Network (ISDN), Dia-up, Leased Line, DSL, Open Systems Interconnection (OSI)
Unit -6	Library Networks: OCLC, BLAISB, HELINET, INFLIBNET, STN, RLIN etc. Over view of Tele-medicine services and applications; Technical and Regulatory challenges and issues; Health portal design and structure for citizens.
Unit -7	Applications of Mobile Technology in Health Care and Delivery Animation tools & Technology and Digital Imaging.
Unit -8	Web 2.0 Design Technology Practical / Social Media **Introduction :** Web Services: What is Web 2.0?, Folksonomies and Web 2.0, Software as a Service (SaaS), Data and Web 2.0, Convergence, Iterative development, Rich User experience, Multiple Delivery Channels, Social Networking. Web Services: SOAP, RPC Style SOAP, Document style SOAP, WSDL, REST services, JSON format, What is JSON?, Array literals, Object literals, Mixing literals, JSON Syntax, JSON Encoding and Decoding, JSON versus XML. **Building Rich Internet Applications With Ajax**: Building Rich Internet Applications with AJAX: Limitations of Classic Web application model, AJAX principles, Technologies behind AJAX, Examples of usage of AJAX, Dynamic web applications through Hidden frames for both GET and POST methods. **Social Media:** Introduction- Overview- Importance of Social Media, Economics & ownership, Privacy, Law & ethics, Identity and reputation Social networking and social capital, interacting visually, Technological convergence and the rise of mobile technology, Measuring, monitoring, and analyzing social media trends and impact.

Library Work 40hrs

Reference Books:

1. Andrew S. T. & David J.W. (2011). Computer networks. Boston: Pearson Prentice Hall.
2. Balakrishnan, S.(2000). Networking and the future of Libraries. New Delhi: ESS ESS.
3. Barcode basics. http://www.makebarcode.com/info/info.html
4. Bose, K.(1994). Information networks in India: Problems and prospects. New Delhi: ESS ESS.
5. Carter, R.(1987). The Information technology hand book. London: Henemann.
6. Chapman, E.A.(1970). Library systems analysis guidelines. New York: John Wiley.
7. Dhiman, A.K.(2003). Basics of Information technology for librarians and Information scientists. ESS ESS .
8. DRTC(1999). Library networks in India (Seminar Papers). Bangalore, DRTC, ISI.
9. Haravu, L.J.(2004). Library automation: design, principles and practice. London: Allied publishing.
10. Jeanne, F.M. (2006). A librarian's guide to the Internet: A guide to searching and evaluating Information. Oxford: Chandos publishing.
11. Kaul, H K(1992). Library networks: an Indian experience. New Delhi: DELNET.
12. Kumar, P.S.G. (2004). Information technology: Applications (Theory and Practice). DelhiL: B.R. Publishing.
13. Lucy, A. T.(2005). An introduction to computer based Library system. 3rd Ed. Chichester: Wiley.
14. Patnaik, S.(2001). First text book on Information technology. New Delhi: Dhanpat Rai.
15. Ravichandra Rao (1996). Library automation. New Delhi: New Age International.
16. Rich, E. and Knight K.(1994). Artificial Intelligence, 2nd Ed. New Delhi: T.M.H.
17. Richard J.(2006). The institutional repository. Oxford: Chandos publishing.
18. Vishwanathan, T.(1995). Communication technology. New Delhi: T.M.H.
19. Zorkoczy, P .(2005). Information technology: An introduction, London: Pitman.
20. http://www.inflibnet.ac.in

FOURTH SEMESTER

Credit Based System

4.1. Research Methods and Biostatistics

Unit -1	Foundations of research: Nature, definition and objectives of research, Types of research. Ethics in research. Areas of research in Library and Information Science.
Unit -2	Planning of Research: The planning process; Review of literature, /selection of a problem for research, mode of selection, sources of problems, process of identification, criteria of selection and formulation of selected problems. Hypothesis – Meaning, types, sources, functions, hypothesis, conceptualization, Research Design – Essentials of good research design and its importance, research Design / writing the research proposal.
Unit -3	Research Methods: Quantitative and qualitative methods of LIS research: Survey method, Historical method, Observation method, Experimental method, Case-Study method. Delphi method. Sampling and Data Collection, Sampling techniques / methods, sample design or choice of sampling techniques, sample size sampling and non-sampling errors. Meaning and importance of data sources of data, types of data, use of secondary data.
Unit -4	Data Collection tools observation: Rating scale check list; Questionnaire – types of questions structured and unstructured questions, Cautions regarding question and questionnaires, interview schedule - types, merits and limitations; measurements indices, pilot studies. Observation, Statistical analysis of data statistical analysis; measures of central tendency, mean, median and mode, measures of dispersion – range, intermediate ranges, measures of aggregate dispersion, mean-absolute deviation, the variance and standard deviation and normal distribution. Chi-square test.
Unit -5	Graphical presentation of data and report writing; meaning and importance, commonly used graphic forms live graphs or charts. Histograms, Frequency polygons, Ogive bar charts, pie charts and pictogram. Organization of reports. Steps in writing research reports, writing style.
Unit -6	Biostistics

Library Work-40hrs

Reference Books:

1. Frieda O Weise, Editor. Health Statistics: An Annotated Bibliographic Guide to Information Resources. Editor. 2nd ed., Chicago: MLA. 1996, p 184
2. Froehlich T J. Survey and Analysis of the Major Ethical and Legal Issues Facing Library and Information Services. Munchem: IFLA, 1997.
3. Fronts V.J. Voiskunskii V G. Automated Information Retrieval. San-diego; Academic Press, 1997.

4. Busha, C.Hand Harter, S.S. (1980). Research methods in librarianship: Techniques and interpretation. Orlando, Academic press.
5. Charles, H. et.al.(1993). Research methods in librarianship: Techniques and interpretations, New Delhi: Sage.
6. Fowler, F.J. (1993).Survey research methods. New Delhi: Sage.
7. Goode, W.J. and Hatt, P.K. (1986). Methods in social Science research. New Delhi: McGraw Hill.
8. Krishan Kumar(1992). Research methods in Library and Information Science. New Delhi: Vikas,.
9. Krishnaswami, O.R. (1993). Methodology of Research in Social Sciences. Bombay: Himalaya.
10. Leddy, P. D. (1980).Practical research: Planning design. London: Clive-Bingley.
11. Line, M.B. (1967). Library surveys, London: Clive Bingley.
12. Nicholas D. and Ritchil, M. (1979). Literature and bibliometrics. London: Clive Bingley.
13. Ravichandra Rao, I.K. (1985). Quantitative methods for Library and Information Science. New Delhi: Wiley Eastern.
14. Slater, M. (1990). Research methods in Library and Information studies. London: L.A.
15. Stevens, R.E. Ed.(1971). Research methods in librarianship. London: Clive Bingley.

4.2. Practicals

Unit -1	HTML, XML, DHTML, XHTML, TCP / IP, FTP, SSHD, Web server: Apache etc. CGI Programming, PHP, Java Scripts, Java scripts and JSP, Database connectivity, ODBC, JDBC
Unit -2	Creation of Databases Designing of Webpage and Website Blogs, Wiki
Unit -3	Building Digital Libraries using Digital Library Software Use of Animation tools and technology and Digital Imaging software. Chemical Structure Searching.

Open Elective / Specialization (4 Papers)

1. **E-Publishing**

   Introduction- Overview, Information publishing activities, Photoshop is professional image-editing and graphics creation software from Adobe. It is a bitmap-based, graphic drawing program that designers use to create professional artwork or advertisements. This program is typically used to scan and alter photographic images. Introduction to book editing—Commissioning editor, Acquisition Editor, Copy Editor –Role and responsibilities House Style–importance and practice- Spelling and Punctuation [Quotation Marks (double quote/ single quote)/ Abbreviations including use of full stop/ Contractions/Acronyms/ Upper-Lower Case/Foot Notes/ End Notes/ Figures and Numerals/ measurements / Diacritical Marks/ Prelims/ Index/ Glossary/ Annotation/ Bibliography/ Biographical Note/ dates/ foreign language words/ documentation/ others (italics, bold, time, author's checklist)] Developing a manuscript- Fiction, Non-fiction (Academic and General books/ School and College Texts/ Art and Reference Books/ Children's Books/ Science & Medical Books, books of various niche markets, Pedagogy, etc)--Consideration of geographical location and target age group. Editorial functions through the printing process--proof reading, layout, designing, image plan, illustrations, charts, maps, caption writing-- changes in prilims with new editions or reprints.

References Books:

1. Karen S. W. Marilynn B, Stone, T. A. (2003). Electronic publishing: The definitive guide. UK: Hard Shell Word Factory.
2. Klostermann, D. (2011). The e-book handbook - A thoroughly practical guide to formatting, publishing, marketing, and selling your e-book. Cambridge: Full Stop.
3. Loton, T. (2011). E-book publishing DIY: the do it yourself guide to publishing e-books, 2nd ed. United States: LOTONtech.
4. Meckler, L. (2011). E-book formatting, self-publishing, marketing tips updated. USA: Linda E meckler on smash words.
5. Sahida, F. K. (2010). Publishing e-book for dummies. USA: Create Space .
6. Schuster, C. (2011). E-publishing for writers: Trends and opportunities/Fall 2011 (Kindle Edition ed.). UK: Books to Go Now.

2. **Clinical Librarianship** Selecting resources, Searching MEDLINE, how to teach MEDLINE within context of EBM, Role of the Librarian, Appraising articles on Diagnosis, Appraising articles on Therapy, Appraising articles on Prognosis, Appraising articles on Etiology/Harm, Appraising articles on Overviews

References Books:

1. Kesselman, M., & Watstein, S. (2009). Creating opportunities: Embedded librarians. Journal of Library Administration, 49(4), 383-400.
2. Heider, K.L. (2010) Ten tips for implementing a successful embedded librarian program. Public Services Quarterly, 6(2-3), 110-121
3. Bullen, M., Morgan, T., & Qayyum, A. (2011). Digital learners in higher education: Generation is not the issue. Canadian Journal of Learning & Technology, 37(1).
4. Romero, M., Guitert, M., Bullen, M., & Morgan, T. (2011). Learning in digital: An approach to digital learners in the UOC Scenario. European Journal of Open, Distance And E-Learning. Retrieved from http://www.eurodl.org/materials/special/2011/Romero_Bullen_Morgan.htm
5. Gros, B., Garcia, I., & Escofet, A. (2012). Beyond the net generation debate: A

comparison between digital learners in face-to-face and virtual universities. The International Review of Research in Open and Distance Learning, 13(4), 190-210. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1305/2311

6. Margaryan A., Littlejohn A, Vojt, G. (2011) Are digital natives a myth or reality?: Students' use of technologies for learning. Computers & Education 56 (2011) 429–440

3. Content Management System (CMS)

Introduction to content management systems, What is content management?, What is a content management system?, Who uses CMS?, Popular content management systems (CMS), Terminology & Concepts: Open Source, CMS, Blog, Implementing Best Practices, Content Management Best Practices, Drupal, Why Drupal?, How to use Drupal? JOOMLA / Example, Why Joomla? How to use Joomla?

Reference Books:

1. Arthur, M.H. (2006). Expanding a digital content management system: for the growing digital media enterprise. Boston: Elsevier Focal Press.
2. Barrie, M. N. (2009). Joomla! 1.5: a user's guide: building a successful Joomla! Powered website. Upper Saddle River, NJ: Prentice Hall.
3. Bradford L. E. (2008). Content management systems in libraries: case studies. Lanham, Md. : Scarecrow Press.
4. Hal Stern, Brad Williams, David Damstra (2010). Professional Word Press: design and development. Indianapolis, IN: Wiley Pub., Inc.
5. Janet Majure (2010). Teach yourself visually Word Press. Indianapolis, IN: Wiley Pub., Inc.
6. Jason, C. (2005). Using Moodle: teaching with the popular open source course management system. Sebastopol, CA : O'Reilly Community Press.
7. Jason, C. &Helen F. (2008). Using Moodle. Sebastopol, CA: O'Reilly Community Press.
8. Jen K.P. & Sarah E. (2010). Joomla! Start to finish. Indianapolis, IN: Wiley Pub., Inc.

9. Jennifer Marriott, Elin Warring (2011). The official Joomla! Book. Upper Saddle River, NJ: Addison-Wesley.
10. Mauthe, A. & Thomas, P. (2004). Professional Content Management Systems: Handling Digital Media Assets. John Wiley & Sons.
11. Ric S. & Brice D. (2011). Drupal 7 bible. Indianapolis, IN: Wiley.

4. Information Literacy

Introduction-Information Literacy Generally, Information and Context, Information Literacy in Professional Environments, Information Sources and their Organization, The Information Industry, Information literacy Model, Information-based Decisions, The Role of Information in Organizational Strategy.

Reference Books:

1. American Library Association. Final Report of Presidential Committee on Information Literacy. www.ala.org/at/nill/litt1sthtml
2. Barker, K. and Londsale, R. Ed. (1994). Skills for life: the value and meaning of literacy. London: Taylor Graham.
3. Bawden, D.(2001). Information and digital literacies: a review of concepts. http://gti/edu.um.es.8080/gomez/hei/intranet/bawden/pdf.
4. Eisenberg, M.B. , Lowe, C.A. & Spitzer, K.L. (2004). Information literacy: Essential skills for Information age. London: Libraries unlimited.
5. Meadows, A.J. Ed. (1991). Knowledge and communication: essays on the Information chain. London: Library Association.
6. Pantry, Sheila and Griffiths, Peter (2002). Creating a successful e-Information service. London: Facet.
7. Zorana Ercegovac (2008). Information literacy: search strategies, tools & resources for high school students and college freshmen. California: ABC-CLIO

Library 40hrs

4.3. Dissertation

Dissertation- Students will undertake in the beginning of the second year a research work under the supervision of a member of faculty and submit a dissertation.

REFERENCE- JOURNALS

1. Annals Library Science and Documentation
2. Journal of Medical Library Association
3. College and Research Library
4. Computers in Libraries
5. Electronic Library
6. Herald of Library Science
7. IASLIC Bulletin
8. Information Processing and Management
9. Information Retrieval and Library Automation
10. Information Society
11. Information Studies
12. Information Technology and Libraries
13. Inter Information Library Review
14. Inter Journal Digital Libraries
15. International Journal of Medical Informatics
16. Journal Education for Library and Information Science
17. Journal of Health Informatics
18. Library and Information Science Abstracts (CD ROM)
19. Library Hi – tech
20. Library Resources and Technical Services
21. Managing Information
22. SRELS Journal of Information Management
23. BMJ
24. Lancet
25. NEJM
26. JAMA
27. IJMR

Section - IV

Teaching and Learning Activities

A candidate pursuing the course shall work in the institution as a full time student. Every student shall attend teaching and learning activities during the year as prescribed by the department and not absent himself / herself from work without valid reasons.

The various topics as mentioned in the syllabus will be covered partly by "lecture methods"; about 50 – 60 hrs of lectures may be arranged by Visitng Faculty / Guest Faculty for each paper.

For paper VI, students are expected to undergo at least 20 practical session of 3hrs each.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills is given below.

1. **Lectures:** Lectures can be didactic
2. **Journal Club:** Recommended to be held once a week. All the students are expected to attend and actively participate in the discussions and enter the relevant details in the log book. Further, every candidate must make a presentation from the allotted journal(s) of selected articles at least four times a year. The presentations would be evaluated using checklists and would carry weightage for internal assessment (*See* Checklist in Chapter IV). A time table with names of the students and the moderator shall be announced at the beginning of every semester.
3. **Subject Seminar:** Recommended to be held once a week. All the students are expected to attend and actively participate in discussion and enter in the logbook relevant details. Further, every candidate must make presentation on selected topics at least four times a year. The presentations would be evaluated using checklists and would carry weight age for internal assessment. A timetable for the subject with names of the student and the moderator shall be scheduled at the beginning of every semester.

4. **Student Symposium:** Recommended as an optional multi-disciplinary program. The evaluation may be similar to that described for subject seminar.
5. **Conferences:** Attending conferences is optional. However, participation and presentation of scientific papers should be encouraged.

6. **Dissertation:** Every candidate pursuing Master of Library and Information Science Course is required to carry out project work on a selected research topic under the guidance of a recognized postgraduate teacher or practitioner. The results of such a work shall be submitted in the form of a dissertation.

The dissertation work is aimed to train a Master of Library and Information Science student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis and comparison of results and drawing conclusions.

The dissertation work should be written under the following headings and guidelines to be followed as per the template for full-text submission of guided dissertation.

1. Introduction
2. Objectives
3. Review of Literature
4. Methodology
5. Results
6. Discussion
7. Conclusion
8. Summary
9. Bibliography
10. Annexures

Four copies of dissertation work thus prepared shall be submitted to the University along with a copy on a CD one month before final examination of the 4th semester in the 2nd year as notified by the University.

Section - V

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring is done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Model checklists are given in this section, which may be copied and used.

The learning process of the student to be assessed should include: (i) Personal attitudes, and (ii) Acquisition of knowledge.

(i) Personal Attitudes

The essential items are:

- Caring attitudes
- Initiative
- Organizational ability
- Potential to cope with stressful situations and to undertake responsibility
- Trustworthiness and reliability
- To understand and communicate intelligently with users and management
- To behave in a manner which establishes professional relationships with colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

(ii) Acquisition of Knowledge

The methods used comprise of 'Log Book' which records participation in various teaching/learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Additional activities may be included, if desired.

Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, to possess presentation skills, and the use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (See Model Checklist – I).

Seminars / Symposia: The topics should be assigned to the student well in advance to facilitate an in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist (See Model Checklist – II).

Work Diary / Log Book: Each student shall maintain a work diary and record his / her participation in the training programs conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate.

Records: Records, log books and marks obtained in tests will be maintained by the Head of the Department.

FORMAT OF MODEL CHECK LISTS

Check List -I. Model Check-List for Evaluation of Journal Review Presentations

Name of the Student:

Name of the Faculty / Observer: Date:

Sl. No.	Items for observation during presentation	Poor 0	Below Avg. 1	Avg. 2	Good 3	Very Good 4
1.	Article chosen was					
2.	Extent of understanding of scope and objectives of the paper by the student					
3.	Whether cross references have been consulted					
4.	Whether other relevant publications consulted					
5.	Ability to respond to questions on the paper / subject					
6.	Audio-Visual aids used					
7.	Ability to defend the paper					
8.	Clarity of presentation					
9.	Any other observation					
	Total Score					

Check List - II. Model Check-List for Evaluation of Seminar Presentations

Name of the Student:

Name of the Faculty / Observer: Date:

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Whether other relevant publications consulted					
2.	Whether cross references have been consulted					
3.	Completeness of Preparation					
4.	Clarity of Presentation					
5.	Understanding of subject					
6.	Ability to answer questions					
7.	Time scheduling					
8.	Appropriate use of Audio-Visual aids					
9.	Overall Performance					
10.	Any other observation					
	Total Score					

Check List – III. Model Check List for Evaluation of Seminar Skills

Name of the Student:

Name of the Faculty / Observer: Date:

Sl. No.		Strong Point	Weak Point
1.	Communication of the purpose of the talk		
2.	Evokes audience interest in the subject		
3.	The introduction		
4.	The sequence of ideas		
5.	The use of practical examples and/or illustrations		
6.	Speaking style (enjoyable, monotonous, etc., specify)		
7.	Attempts audience participation		
8.	Summary of the main points at the end		
9.	Asks questions		
10.	Answers questions asked by the audience		
11.	Rapport of speaker with his audience		
12.	Effectiveness of the talk		
13.	Uses AV aids appropriately		

Check List – IV. Model Check List for Dissertation Work

Name:

Faculty / Guide: Date:

Sl. No.	Points to be considered	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Interest shown in selecting a topic					
2.	Appropriate review of literature					
3.	Discussions with guide and other faculty					
4.	Quality of protocol					
5.	Preparation of Proforma					

Checklist – V. Continuous Evaluation of Project Work Guide/Co-Guide

Name of the Student:

Name of the Faculty / Guide / Co-Guide: Date:

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Periodic consultation with guide / co-guide					
2.	Regular collection of case material					
3.	Depth of analysis / discussion					
4.	Departmental presentation of findings					
5.	Quality of final output					
6.	Others					
	Total Score					

LOGBOOK

Table 1: Academic activities attended

Name: Admission Year/ Semester

University:

Date	Type of Activity: Specify Seminar, Journal Club, Presentation, UG teaching etc.	Particulars

LOG BOOK

Table: Academic Presentations made by the Student

Name: Admission Year/ Semester

University:

Date	Topic	Type of Presentation: Specify Seminar, Journal Club, Presentation, UG Teaching etc.

Overall Assessment Sheet

Admission Year/ Semester

Sl. No.		Name of Student and Mean Score									
		A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
1											
2											
3											
4											
5											
Total Score											

Note: Use separate sheet for each semester.

Section – VI

PROFESSIONAL ETHICS

INTRODUCTION

Librarians have a special role to play in enhancing the intellectual acumen of the health science professionals. As such they need to make known to the health science professionals that they are guided by ethical principles in discharging their duties.

Ethical dilemmas occur when values are in conflict. The code of Ethics should state the values to which the health science librarians are committed and it should embody the responsibilities of the profession in this fast changing information environment.

The profession is committed to control the selection, organization, preservation and disseminates of information. It pledges towards the intellectual freedom and the freedom of access to information. The profession has a special obligation to ensure the flow of information and ideas to present and future generations.

The American Library Association has adopted Code of Ethics in 1995 which can be applied universally. The statements provide a frame work which can be altered to suit to particular situations.

CODE OF ETHICS: BROAD STATEMENTS

We provide the highest level of service to all library users through appropriate and usefully organized resources; equitable service policies; equitable access; and accurate, unbiased, and courteous responses to all requests. We uphold the principles of intellectual freedom and resist all efforts to censor library resources. We protect each library user's right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or transmitted. We recognize and respect intellectual property rights. We treat co-workers and other colleagues with respect, fairness and good faith, and advocate conditions of employment that safeguard the rights and welfare of all employees of our institutions. We do not advance private interests at the expense of library users, colleagues, or our employing institutions.

We distinguish between our personal convictions and professional duties and do not allow our personal beliefs to interfere with fair representation of the aims of our institutions or the provision of access to their information resources.

We strive for excellence in the profession by maintaining and enhancing our own knowledge and skills, by encouraging the professional development of co-workers, and by fostering the aspirations of potential members of the profession. Similarly, the Medical Library Association has set certain goals and principles for ethical conduct.

The health science librarian believes that knowledge is the sine qua non of informed decisions in health care, education and research and the health sciences librarian services society, clients, and the institution, by working to ensure that informed citizens can be made.

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