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

Department of Library and Information Science
Goa University

Goa University Library, Taleigao Plateau
Goa PIN 403 206
Website: www.unigoa.ac.in
Tel: 0832-6519072/272/087, Fax: 0832-2451184
**Department of Library and Information Science**

**Goa University**

**Duration of the courses**  
One Year Courses  
(Credit Based Semester System)

**Credit based Semester Syllabus for**  
Master of Library and Information Science (MLISc)

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| 23 | MLC 207 Dissertation | Dissertation is a compulsory component of MLISc Course and will carry **12 Credits**. The Dissertation work will start from the third Semester of the Course. | 300 | 41 |

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Goa University
Department of Library and Information Science,

Credit based Semester Syllabus for
Master of Library and Information Science (MLISc)

First Semester

MLC – 101 Information Retrieval
(3 Credits / 75 marks)

**Unit 1**
- Information Retrieval Systems: Basic concepts, Definitions, Objectives, Characteristics, Components and functions. Functional model of an IRS.


**Unit 2**
- Vocabulary Control: Vocabulary control – Meaning and importance; Controlled Vs. Free text Indexing; Vocabulary control tools – Subject heading Lists, Thesauri, Thesaurofacet, Classarus. Thesaurus construction techniques. Case Study of Controlled vocabularies/ Ontologies such, ERIC, MeSH, INSPEC, UNESCO-IB, AgroVac, UMLS (10 Hours)

**Unit 3**
- IR models. Concept of Ranking. Structural models – Boolean Model, Probabilistic retrieval model, vector space model. (10 Hours)
Unit 4
- Evaluation of IRS: Purpose; Evaluation criteria; Design of evaluation programmes; Steps of evaluation; Evaluation experiments: Overview of the Cranfield test, MEDLARS, the SMART Retrieval Experiment, The STAIRS project, TREC.
- Trends in IRS: Developments, Searching and retrieval, Full text retrieval, User interfaces, IR standards and protocols.

Selected Reading


**MLC – 102 Library Automation and Networks**

(3 Credits / 75 Marks)

**Unit 1**
- Automation of Library operations. Acquisitions, Cataloguing, OPACs, Circulation and Serials control.
- Application of Barcode and RFID Technology for Library Functions.
- Application of Artificial Intelligence to Library and Information Centres

- (20 Hours)

**Unit 2**
- Network concepts: Meaning, and Definition. Digital and analogue signals, Modulation, Frequency, Spectrum, Bandwidth, Multiplexing (FDM, TDM, STDM, and WDM), Asynchronous and synchronous transmission, Transmission Modes - Simplex, Half-duplex and Full duplex channels.
- Types of computer networks: Local Area Networks – Concept, Topologies (Bus, Star, Mesh, Tree, and Ring). Wide Area Networks and Metropolitan Area Networks- Concepts, Circuit switching and Packet switching. Difference between LAN and WAN. Wireless Networks –Mobile telephones.

- (5 Hours)

**Unit 3**
- Network architectures. OSI and TCP/IP Reference models.
- Protocols and its functions. Understanding TCP/IP.

- (10 Hours)

Unit 4
- Historical Developments of Library Cooperation and Networking.
- Library Networks: Study of the functions and activities of OCLC, RLIN, BLAISE, ERNET, JANET, NICNET, INFLIBNET, DELNET, BALNET, MANLIBNET.

- (10 Hours)

Selected Readings:
8. DRTC(1999). Library networks in India (Seminar Papers). Bangalore, DRTC, ISI.

12. http://www.inflibnet.ac.in
14. http://www.delnet.nic.in

MLC – 103 Library Automation and Databases (Practic3)
(2 Credits / 50 Marks)

Unit 1
- Creation of Database: CDSISIS / WINISIS, MySQL

Unit 2
- Use of Library software: Koha/Libsys/SOUL etc.,

Unit 3
- Database Searching. Webcats and WebOPACs, LC Catalog, OCLC etc. Internet Searching,

Unit 4
- Use of search engines: Google, Yahoo etc. 

- (90 Hours)

MLC – 104 Research Methodology
(3 Credits / 75 Marks)

Unit 1
- Foundations of research: Meaning and definition, nature, and objectives of research, Types of research, Basic concepts of research. Ethics in research. Areas of research in Library and Information Science. Role of research in the development of scholarship. 5 Hours

Unit 2
- Planning of research, The Planning process; Review of literature.
- Hypothesis – Meaning, Types, Sources, Functions, Hypothesis; Conceptualization;
- Research design - Essentials of good research design & its importance, Ethical aspects of research; Literature search – print, non-print and electronic sources.
- Research design / writing the research proposal. 10 Hours

**Unit 3**

- Research techniques and tools: Questionnaire - types of questions, structured and unstructured questions, Cautions regarding questions & questionnaires. Interview schedule – Types, Merits & limitations; Measurements indices, Pilot studies. Rating scales and check lists. 10 Hours

**Unit 4**

- Sampling & data collection: Sampling techniques, 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
- Statistical analysis of data: Descriptive Statistics – measures of central tendency, mean, median & mode; Tabulation and Generalization; measures of dispersion – Range, intermediate ranges, measures of aggregate dispersion, mean-absolute deviation, the variance and covariance, and standard deviation & normal distribution. Chi-square test.
- Graphical presentation of data and report writing: Meaning & importance, commonly used graphics forms-line graphs or charts. Histograms, Frequency polygons, Ogive bar charts, pie charts & pictogram. Sociometry, Statistical Packages – SPSS.

**Selected Readings:**


**Optionals**

**MLO – 105 Web 2.0**

(3 Credits / 75 Marks)

**Unit 1**

- Web 2.0. Definition and Characteristic features. Web 2.0 challenges for Libraries. Web 2.0 based Library services. 15 Hours

**Unit 2**


**Unit 3**

- Understanding Podcasting, VODcast and Screencast. WIKIS, Mashups, Real time communications. 10 Hours

**Unit 4**

- Case studies of Web 2.0 in Libraries. 10 Hours
Selected Readings:


MLO – 106 Electronic Information Sources and Services

(3 Credits / 75 Marks)

Unit -1
- Electronic Information Sources: Concept, Types/ Kinds, Characteristic features and use. Types of sources (Primary, Secondary, Tertiary)
- Evaluation of Information Sources. 10 Hours

Unit -2
- Electronic Information resources: Meaning and definition, Growth and development, Types.
- Free online Dictionaries, Non-free online dictionaries, Free Thesauri.
- Encyclopedia, Virtual Libraries, Subject gateways and Portals 15 Hours

Unit -3
- Free databases and fee based bibliographical and full text databases, subject related websites, Institutional repositories, Open Archives and digital Libraries.
Unit 4

Components of Information System: Libraries, Documentation Centres, Information centres, Data centers, Data Banks, Museums, Memories, Publishing Houses.

- Virtual Reference Desk, Online Reference Services 10 Hours

Selected Readings:

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Second Semester
MLC – 201 Digital Libraries

(4 Credits / 100 Marks)

Unit 1
- Design and Organization of Digital Library :Architecture, Interoperability, Compatibility, Protocols, standards and User Interfaces, 15 Hours

Unit 2
- Content creation – Electronic documents, files and file formats. Study of different file formats. Studying PDF in detail- features of PDF. Born digital and legacy documents. Digitization- scanning, OC Ring and conversion to PDF. Electronic Publishing and scholarly communication, E-journals and e-books
- Digital Preservation, Conservation and Archival Management – Problems and prospects 15 Hours

Unit 3
**Unit 4**
- Open Access Movement and Institutional repositories. Case study of select digital Libraries and IRs. California Digital Library; Alexandria Digital Library; ArXive; Cogprintis; Indian Scenario

**Selected Reading:**

**MLC – 202 Digital Libraries (Practice)**

(3 Credits / 75 Marks)

**Unit 1**
- Installation of Greenstone. Building digital collection using Greenstone

**Unit 2**
- Creating Metadata. Searching, Indexing. Modifying user interface etc. in Greenstone

**Unit 3**
- Installation of DSpace/Eprint/OJS

**Unit 4**
- Building collection in DSpace/Eprint. 135 Hours
MLC 203 - Webometrics, Informetrics & Scientometrics

(2 Credits / 50 Marks)

Unit 1
- Basic concepts: Bibliometrics, Informetrics, Scientometrics – Meaning, definitions and scope. Historical development. Study of bibliographic organizations: ISI, NCB, NISTAD. 5 Hours

Unit 2
- Study and application of Classical Bibliometric Laws – Lotka’s law of scientific productivity, Bradford’s law of scatter, and Zipf’s law of word occurrence. Other notable regularities: 80/20 rule, Success-breeds-success model, law of Price. 10 Hours

Unit 3
- Study of the citation concepts: citation analysis, citation network, citation matrix, bibliographic coupling, co-citation analysis, Journal Citation Reports, Productivity measurement techniques, Impact factor, H-Index.
- Growth and obsolescence of literature. Various growth models, the half-life analogy, determination of aging factor and half life, real vs apparent, synchronous and diachronous. 10 Hours

Unit 4

Selected Readings:
MLC – 204 Marketing of Information Products and Services
(2 Credits / 50 Marks)

Unit 1
- Emergence of Information Society and Knowledge Society and conceptualization of Information as a Resource: as a commodity and Information economics, Economics of Information; Growth of Information Industry and Implications on Library and Information Services and Products. Trans border data flow: agencies in TBDF, types of TBDF, barriers in BDF – access, linguistic, legal, economic and cultural (Information Consolidators, Aggregators, and Consortia etc.) 10 Hours

Unit 2
- Marketing concepts; - Corporate Mission; Marketing Strategies. Concept of Marketing in Non-profit Organizations
- Portfolio Management BCG Matrix Model; Product Market Matrix; Product Life Cycle, Pricing Information. 10 Hours

Unit 3
- Marketing Mix; Kotler's Four P's; McCarthy's Four P's. Packing, Branding and Advertising 5 Hours

Unit 4
- Marketing Information Products & Services. 5 Hours

Selected Readings:

**Optionals**

**MLO – 205 Information Literacy**

(3 Credits / 75 Marks)

**Unit 1**
- Information literacy: Meaning, Definition, Need, Evolution of the concept. Historical perspective of Information literacy.
- Types of Information Literacy: Technology literacy, media literacy, computer and digital literacy.
- Levels of Information Literacy: Entry level, Mid-level, High level, Advanced level. Lifelong learning and its components. 15 Hours

**Unit 2**
- Partners of Information literacy.
- Models of Information literacy: SCONUL model and CAUL (Australian) model.
- Guidelines and standards for Information literacy programs: ALA and ACRL. 10 Hours

**Unit 3**
- Information literacy programmes.
- Role of Libraries in Information literacy.
- Information literacy instructions in different types of Library and Information centers 10 Hours

**Unit 4**
- Current trends in Information literacy.
- Study of Information literacy programs in the world.
- Information Literacy Competencies
- Challenges facing Information literacy. 10 Hours

**Selected Readings:**


**MLO – 206 Scholarly Communication**

(3 Credits / 75 Marks)

**Unit 1**
- Republic of Science and Scholarship: Foundations of Science and scholarship. Principles and paradigms of scientific culture/scholarship: Historical perspective of scholarly communication systems. Scholarship and scholarly traditions.
- Study of journals, their functions, working and processes. The importance of scientific and professional societies in journal publishing; the peer review process; the migration of peer review journals from print to Web–based; Serials pricing crisis phenomena.

15 Hours

**Unit 2**
- Rise of Internet as game changer in scholarship, communication, and daily lives.
- Evolution of Internet/Electronic publishing; Web 2.0 and the emergence of Wikipedia; slideshare; You Tube; blogs and others as mainstream media. E-Science, Open Data and cyber Infrastructure.

10 Hours

**Unit 3**
- Open Access Movement: understanding OA—concepts, principles, ideology and philosophy of Open Source, Open Content; Open Educational Materials and Open Access to scientific literature; the Green and Gold route to OA. Familiarity with the people and organisations behind the OA movement.
- Study of Open source software for IR and DL: DSpace; Eprints ; Fedora ; Kete

10 Hours
**Unit 4**
- Scientometrics and metrics of scholarly communication. Innovations in measuring Science and scholarship. Mapping Science and tools and parameters: usage and influence factors. 10 Hours

**Selected Readings:**


**MLC 207 - Dissertation**

(12 Credits / 300 Marks)

Candidate has to prepare a dissertation on a topic approved by the departmental council under the supervision of a faculty of the department. The Dissertation work will start from the beginning of the first semester and end two weeks before the end of the second semester. There shall be a viva for assessment of the dissertation.

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