

LIS - 507: Information Retrieval

(4 Credits/100 Marks)

Course Description:

Information retrieval is a vital component in information management. There is an outburst of information and retrieving relevant and authentic information is the irrevocable role of the librarian in providing information services, therefore, this course will offer the library professional knowledge on how to retrieve information from various information sources using suitable information retrieval tools.

Learning Objectives:

The objective of this paper is to:

- Introduce the concepts of information retrieval (IR), familiarize the students with the different types of vocabulary control tools and the importance of vocabulary control tools in retrieving information.
- Acquaint the students with the various information retrieval models, and the trends in retrieval.

Course Outline

Unit – I: Information Retrieval 15 hours

Information Retrieval: Basic concepts, Definition, Objectives, Components, Functions.

Evaluation of IRS: Purpose, Evaluation, Criteria, Steps of evaluation

Indexing: Meaning, Purpose, Need, Pre-coordinate Indexing, Post-coordinate Indexing, Automatic Indexing.

Pre-coordinate Indexing - Chain procedure, POPSI, PRECIS, Keyword Indexing.

Post-coordinate Indexing - Uniterm, Citation Indexing

Unit – II: Vocabulary Control 15 hours

Meaning, Importance of vocabulary control, Controlled v/s Uncontrolled vocabulary

Vocabulary control tools: Subject heading, Thesauri, Thesaurofacet, Classaurus

Unit – III: Information Retrieval Models 15 hours

Information Retrieval Models - Boolean Model, Vector Space Model, Probability Model.

Thesaurus construction techniques and Practice

Case study of Controlled Vocabularies/ontologies

Unit – IV: Web Information Retrieval

15 hours

Search Engines - Definition, Functions and Components of Search Engines, Meta Search Engines, Searching and retrieval, Full Text retrieval, User Interfaces.

Evaluating Search Engines

Natural Language Processing.

Information Retrieval - Standards and Protocols.

Learning Outcomes:

At the end of the course, the students will understand the basic concept of IR and the role of indexing in IR.

- The students will gain knowledge on various IR models and how IR is useful in the development of search engines.
- The students will understand how the vocabulary control tools enhance the IR process, learn to construct the thesaurus and get familiar with the controlled vocabularies / ontologies used in various online databases.

References / Readings:

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5. Croft, W. B; Metzler, D & Strohman, T. (2015). Search Engines Information Retrieval in Practice. Pearson Education
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