



LEAD CITY UNIVERSITY
Faculty of Arts and Education
Department of Library and Information Science

COURSE PARTICULARS

Course Code: LIS 312
Course Title: Information Retrieval Techniques
No. of Units: 3
Status: Compulsory

LECTURER DETAILS

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Areas of Specialization: Library and Information Science

COURSE DESCRIPTION

The concept of information retrieval and values. Information systems components, inputs and outputs. Information cycle, problems and factors affecting information retrieval. Information retrieval languages. Automation and retrieval via the Internet. Current developments in automated information retrieval systems.

COURSE OBJECTIVES

The key objective of the course is to study the basics of information retrieval and in particular the characteristics and structure of information retrieval systems, introduce inverted indexes and show how simple Boolean queries can be processed using such indexes. The course will also introduce the manner in which documents are preprocessed before indexing.

ASSESSMENT

Class Attendance	5 marks
Test(s) and Assignments	25 marks
Final Examination	70 marks

LECTURE PLAN

Week	Topic
Week 1	Fundamentals of Information Service and information retrieval
Week 2	Nature, characteristic and structure of information retrieval systems. Content analysis
Week 3	Principles and Theories of Subject Indexing
Week 4-5	Indexing Techniques: <ul style="list-style-type: none"> ➤ Pre and Post Coordinating Indexing ➤ Chain Indexing, PRECIS, Uniterm ➤ Keyword and Citation Indexing ➤ Automatic Indexing
Week 6-7	Indexing languages: concept, theories and methods <ul style="list-style-type: none"> ➤ Index models: free text/ controlled text indexing ➤ Automated indexing systems ➤ Vocabulary control: semantics/ syntactical structure, Syntactical problems ➤ Natural Language Processing ➤ Thesaurus and its construction
Week 8-9	Search Strategies and Techniques: <ul style="list-style-type: none"> ➤ Boolean Logic Problems ➤ Preparation of Query ➤ Steps in Search Strategy ➤ Search Tools and Search Agencies
Week 10	Evaluation of Retrieval Systems
Week 11-12	REVISION, TESTS and ASSIGNMENTS

READING LIST

1. Aina, L.A. 2004. Library and Information Science Text for Africa. Ibadan. Third World Information Services Ltd.
2. Galhotra, M.K. 2008. Information Technology in Library and Information Services. New Delhi, Ess Ess Publications, 330p.
3. Manning, C.D,; Raghavan, P.,Shutze, H.(208). Introduction to Information Retrieval. Cambridge, Cambridge University Press., 469p

TUTORIAL QUESTIONS (2016/2017 Academic Session)

1. What do you understand by Information Retrieval System? Describe 4 major components of an information retrieval system
2. Write short notes on any 4 of the following (with examples where applicable)
 - a. Literary warrant
 - b. User warrant
 - c. Conceptual analysis
 - d. Exhaustively
 - e. Recall Ratio
 - f. Precision Ratio
3. The 'conceptual analysis' or 'content analysis' of a document and the 'translation' of the conceptual analysis into a controlled vocabulary are two distinct intellectual stages in indexing. Describe these two stages in the subject indexing process with the component steps.
4. Define indexing systems. Describe 2 types of indexing systems known to you with their essential features
5. Differentiate between chain indexing and Preserved Context Indexing System (PRECIS)
6. Discuss the two (2) most important measure of performance of indexing systems
7. Write short notes on the following:
 - a. Information retrieval
 - b. Information retrieval systems
 - c. Information retrieval techniques
 - d. Indexing systems
8. Write short notes on the following indexing concepts
 - a. Synonyms
 - b. Homographs
 - c. Narrower Terms
 - d. Broader Termsorganization of information materials
9. Describe two (2) types of title-based indexes. What are the attractions / advantages of title based indexes.
10. Describe the role of controlled indexing language in the

