SCHOOL OF INFORMATION SCIENCE
UNIVERSITY OF KENTUCKY

LIS 630 Information Retrieval

Syllabus – subject to change

Spring 2016: January 13 – May 6

Instructor: Soohyung Joo

Phone: (859) 257 – TBA

e-mail: soohyung.joo@uky.edu

Response Time: Within 24 hours during weekdays (expect a delay during weekends and holidays)

Office: Little Library Bldg. #337

Office hour: 9am – 11am every Tuesday & Thursday or by appointment

COURSE FORMAT

This is an online course, which requires asynchronous class discussion via Canvas to facilitate a sense of community. Canvas will also be used for making course announcements, distributing reading materials, submitting assignments and posting grades.

DESCRIPTION

An overview of information retrieval including concepts, approaches, evaluation methods, and issues (3 credits)

COURSE DESCRIPTION

This course examines three major categories of issues related to information retrieval. First, it is concerned with the range of current information retrieval systems and techniques involved in their construction and application, including database structures, indexing principles, information retrieval models, and interfaces. Second, the course establishes how to describe and analyze the dynamics of users' information needs and their searching strategies. Third, students will be equipped with critical and analytical skills related to selecting appropriate information retrieval systems, databases, resources for assistance, query formulation, and other information retrieval techniques. Special attention is also given to the evaluation of IR systems.

OBJECTIVES

Upon completion of the course, students will be able to:

1. Describe and critically compare fundamental characteristics of information retrieval systems, their interfaces, and other components;

2. Describe the key concepts and theories in information retrieval;

3. Understand the different types of data structures for information retrieval;

4. Apply information retrieval theories and models to analyze and evaluate information retrieval systems;

5. Analyze and evaluate different types of IR systems in terms of their interfaces, performance, and other components.

METHOD

Lecture, Discussion, Exercises (Students with special needs should contact the instructor as early as possible for accommodations)

TEXTBOOK and READINGS:

- No Required Textbook
- Weekly readings will be posted on Canvas.

PREREQUISITE

- LIS 636: Foundations of Information Technology (or LIS 637: Information Technology)

TECHNOLOGY REQUIREMENTS

- You will need access to an appropriate computer with a broadband Internet connection. Note that it is your responsibility to ensure you have a reliable computer for use during the course. Ongoing "computer problems" will not be considered a legitimate excuse for missing course activities.
- All UK students are eligible for a one time free download of Office from the UK download site (https://download.uky.edu); you can get help with this process from the UK helpdesk (859.257.1300; http://www.uky.edu/IT/CustomerService/).

COURSE SCHEDULE

Week	Dates	Topic	Assignment
1	1/13 – 1/17	Course overview	
2	1/18 – 1/24	Structured Data and IR (1)	Exercise 1 (Due: Jan. 25)
3	1/25 – 1/31	Structured Data and IR (2)	Exercise 2 (Due: Feb. 1)
4	2/1 – 2/7	Semi-structured Data and IR (1)	Exercise 3 (Due: Feb. 8)
5	2/8 – 2/14	Semi-structured Data and IR (2)	Exercise 4 (Due: Feb. 15)
6	2/15 – 2/21	Text Retrieval (1) - Text processing and indexing	
7	2/22 – 2/28	Text Retrieval (2) - Information retrieval models	Topic selection (Due: Feb. 28)
8	2/29 – 3/6	Information Retrieval Strategies	
9	3/7 – 3/13	Online Searching I - Online databases and Web search engines	Exercise 5 (Due: Mar. 21)
Spring Vacation (3/14 – 3/20)			
10	3/21 – 3/27	Online Searching II – OPAC and Digital Libraries	Exercise 6 (Due: Mar. 28)
11	3/28 – 4/3	Search Interface Design (1)	
12	4/4 – 4/10	Search Interface Design (2)	
13	4/11 – 4/17	Multimedia Information Retrieval	
14	4/18 – 4/24	Natural Language Processing	
15	4/25 – 4/29	Interactive information retrieval/ Test	Term Paper (Due: Apr. 29)

EVALUATION COMPONENTS

Evaluation	Percentage
(1) Hands-on Exercises	30%
(2) Final Term Paper	40%
(3) Test	10%
(4) Participation	20%
Total	100%

(1) Exercises (30%)

Six hands-on exercises (Each exercise: 5%)

(2) Final term paper (40%)

Please see the attached instruction.

(3) Test (10%)

There will be a 90-minute test in Week 15. The test will consist of true/false, multiple choice, and short answer questions.

(3) Discussion (20%)

Participation points come from both quantity and quality of posts to the discussion board. For each week, we are going to have a discussion forum for class discussion. In the forum, you can discuss an important issue of each week's topic posted by the instructor as well as any questions, ideas or thoughts you have regarding the topic, slides, readings or exercises for that week.

To get full credits for class participation, each student needs to participate in at least twice in each of the forums. More importantly, each student needs to read/view the required readings, class slides, and other students' postings, before posting her/his messages. The week starts on Monday and ends on Sunday at midnight. Although you can continue participating in the earlier week discussions, no credit will be given for posts that occur after the week.

COURSE POLICIES

Academic integrity
According to Senate Regulation 6.3.1: "All academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where you feel unsure about a question of plagiarism involving your work, you are obliged to consult the instructors on the matter before submission." For specific information regarding the University's code and regulations on plagiarism and cheating, visit:
   http://www.uky.edu/StudentAffairs/Code/
   http://www.uky.edu/StudentAffairs/Code/part2.html
   http://www.uky.edu/Ombud/Plagiarism.pdf

Diversity, Assessment, and Technology
All UK professional education programs address and affirm the value of diversity in education, the use of technology to support all aspects of instructional programming, and the importance of attaining high levels of skill in assessing the outcomes of instruction. The course content and the

course environment are dedicated to an understanding of and acceptance of all people. Disparaging remarks in relation to others' ethnic or racial background, sex, sexual orientation, age, disability, socioeconomic background, etc., will not be tolerated.

ADA SERVICES

If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu. The Center is located in the Alumni Gym, Room 2, at the corner of Avenue of Champions and South Limestone Street (next to the Student Center and across South Limestone Street from Kennedy Bookstore).

COURSE RESOURCES

Canvas
- We will use the Canvas learning management system to perform some course management and administrative functions. Please visit https://uk.instructure.com/ to learn about this system and the login requirements. You should be automatically added to the Canvas roll; if this goes as expected, you will not have to sign up manually for the course.
- Canvas help is available online through the Canvas Guides: https://community.canvaslms.com/community/answers/guides/
- Also, UK Help Desk (859-257-1300; http://www.uky.edu/IT/CustomerService/) is able to assist with Canvas and other general computing issues (file download, browser updates, etc.).

Distance Learning Library Services
- At UK, students in online courses have available Distance Learning Library Services. The link to DLLS is: (http://www.uky.edu/Libraries/DLLS) Here is some of the information at that site:
- Phone: (859) 257-0500, ext. 2171; 2nd Phone: (800) 828-0439; Fax: (859) 257-0505 E-mail: dllservice@email.uky.edu ; Location: 2-2, north wing, William T. Young Library 0456
- Distance Learning Librarian: Carla Cantagallo

Writing Center
- UK Writing Center offer both face-to-face and online consultation. And they also provide e-Tutoring consultation, via which you can send your work as an attachment). Details can be found here: http://ukwrite.wordpress.com/