

LIS-630 Section 201 Information Retrieval

Instructor:	Dr. Soohyung Joo
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Office Phone:	859-257-5942
Office hours:	Tuesday, 9:00 AM to 1:00 PM
Virtual Office hours:	Same as above in Canvas
Preferred method of contact:	Email/ Canvas.

I usually respond to questions within 24 hours. (expect a delay during weekends and holidays).

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.

Prerequisites

LIS 636 (or concurrently enrolled)

Student Learning Outcomes

After completing this course, the student 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.

Required Materials

- There is no required textbook.
- All reading materials will be posted on Canvas.
- Extensive lecture notes will be provided.

Course Activities and Assignments

Your final grade is determined by your performance on the items in the table below. First, there are four assignments (35%). Second, there is a final term paper (40%). Third, there is a final exam in Week 16 (10%). Fourth, you will need to participate in weekly discussion forums (15%).

Online Discussions: Students are expected to participate in the weekly discussion forum (including exercises) via Canvas. 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. The instructor will post some discussion questions (and/or one or two exercises) related to the topics of the week, so you can participate in the discussion based on the questions (and/or exercises). Also, you are encouraged to post your own discussion questions. The discussion will start on Monday morning, and it will end on the following Sunday night. To get full credits for class participation, each student needs to participate in at least twice in each of the forum. A valuable posting or quality posting includes a substantive and thoughtful contribution to each week's discussion topics, during that week. Although you can continue participating in the earlier week discussions, no credit will be given for posts that occur after the week. A quality posting is both substantive (in most instances this means at least 100 words) and thoughtful ("I agree with the author" only is not a credit-worthy response).

Summary Description of Course Assignments

- Assignments (35%)
 - There are four hands-on exercise assignments.
 - These assignments will cover how to search information from different formats of data organization.
 - Detailed instruction will be given for each assignment.

- Final term paper (40%)
 - Please see the instruction posted on Canvas.

Final Exam Information

A final exam will be conducted online via Canvas in Week 16.

Course Grading

Grades are based on the quality of the submitted work, not upon how well others performed. The following are grade expectations and divisions. Grading scale for this course:

- 90-100% = A
- 80 - 89.9% = B
- 70 - 79.9% = C
- Below 70%= E

Course Schedule (Subject to Change)

Week	Date	Topics	Assignments (Due)
1	1/10-1/14	Course overview	
2	1/16-1/21	Structured data and IR (1)	Assignment 1 (Due: 1/23)
3	1/22-1/28	Structured data and IR (2)	Assignment 2 (Due: 1/30)
4	1/29-2/4	Semi-structured data and IR (1)	Assignment 3 (Due: 2/6)
5	2/5-2/11	Semi-structured data and IR (2)	Assignment 4 (Due: 2/13)
6	2/12-2/18	Text pre-processing and indexing	
7	2/19-2/25	Text document information retrieval (1)	
8	2/26-3/4	Text document information retrieval (2)	
9	3/5-3/11	Evaluation of search results and IR systems	Topic selection (2/28)
10	3/12-3/18	Spring Vacation	
11	3/19-3/25	Natural language processing (NLP)	
12	3/26-4/1	Multimedia information retrieval	
13	4/2-4/8	Human factors in information retrieval	
14	4/9-4/15	Search interface design (1)	
15	4/16-4/22	Search interface design (2)	
16	4/23-4/29	Final Exam	Term Paper (Due: 4/28)

Submission of Assignments

All assignments and two case study papers should be submitted via Canvas. Prepare and submit all assignments on time. A 10% penalty will be exacted every day the assignment is late.

Attendance Policy

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. Please visit <https://www.uky.edu/canvas> (Canvas) for course homepage.

Course related communications will occur mainly on Canvas (online discussions, questions and answers, etc.). In addition, all announcements will be posted in Canvas. Students thus are required to check the course shell in Canvas on a regular basis. Failure to receive such announcements cannot be used as an excuse for not being informed.

I welcome emails sent to my UKY.EDU email account. Please feel free to email me via soohyung.joo@uky.edu if you have any questions or concerns. In ordinary circumstances, it is expected that the instructor will respond within 24 hours during weekdays. Please expect a delay during weekends and holidays.

Excused Absences

Students need to notify the professor of absences prior to class when possible. Senate Rules 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737, http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php).

Students are strongly encouraged to withdraw from the class if more than 20% of the scheduled classes for the semester are missed per university policy. Please reference the definition of excused absences in the current edition of Student Rights and Responsibilities or on the web at

http://www.uky.edu/Faculty/Senate/rules_regulations/Rules%20Versions/MASTER%20RULES%20from%20February%202012_clean.pdf

Verification of Absences

Students may be asked to verify their absences in order for them to be considered excused. *Senate Rule 5.2.4.2* states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness, or death in the family.

Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence.

Academic Integrity

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following

website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rules 6.3.1 (see <http://www.uky.edu/Faculty/Senate/> for the current set of *Senate Rules*) states that 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 students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording, or content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is <http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/>.

Policies concerning academic integrity, excused absences and academic accommodations due to disability are available online at:

<https://ci.uky.edu/sis/sites/default/files/policies.pdf>

TECHNOLOGY INFORMATION & RESOURCES

Distance Learning Students are expected to have a minimum level of technological acumen and the availability of technological resources. Students must have regular access a computer with a reliable Internet connection and audio capabilities. Internet Explorer 7 (IE) or Firefox 2.x are the recommended browsers for those using a Windows-based PC. Those using Firefox 3.x may encounter problems with assignment uploads. Those using an Apple computer with MAC OS X (10.5.x) may use Firefox 3.x or Safari 3.x.

Please be certain that your computer and/or browser allow you to view Adobe Reader documents (.pdf). Microsoft Office and other software products are free for students: <http://download.uky.edu/>.

As your instructor, I am your first go-to person for technology problems. If you need more immediate assistance, please contact UKIT.

Information Technology Customer Service Center (UKIT)

<http://www.uky.edu/UKIT/>; 859-218-4357

Library Services & Distance Learning Services

<http://www.uky.edu/Libraries/DLLS>

- Carla Cantagallo, DL Librarian
- Local phone number: (859) 257-0500, ext. 2171; long-distance phone #: (800) 828-0439 (option #6)
- Email: dllservice@email.uky.edu
- DL Interlibrary Loan Service:
http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16

For more resources about online classes and student resources, visit

<http://www.uky.edu/ukonline/>

The School of Information Science has a page with a comprehensive list of technology resources here: <http://ci.uky.edu/sis/students/techtips>

Military Members and Veterans

We recognize the complexities of being a member of the military community and also a student. If you are a member of the military or a military veteran or dependent, please inform your instructor if you are in need of special accommodations. Drill schedules, calls to active duty, mandatory training exercises, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate your academic life. If you are aware of a complication, we will work with you and put you in contact with university staff members who are trained to assist you. Please contact the Coordinator of

the University of Kentucky Veterans Resource Center at (859) 257-1148 for additional assistance. Visit <http://www.uky.edu/veterans> for more available resources.