LIS/CJT 629 (Section 201)
Introduction to Medical Informatics

Instructor:	Dr. Sujin Kim, Ph.D./Associate Professor
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	725 Rose Street
Email:	sujinkim@uky.edu
Office Phone:	859-218-0110
Office hours:	Wednesday, Noon to 2PM
Virtual Office hours:	Same as above in Canvas
Preferred method of contact:	Email is preferred.
	I usually respond to questions within 24-48 hours.
	However, weekends and holidays may be delayed.

Course Description

This course is designed to introduce the interdisciplinary field of medical informatics to health information professionals. Medical Informatics is a developing field that essentially seeks to apply information and computing technologies to improve all aspects of healthcare, including patient care, research, and education. During the semester we will explore a number of topics central to understanding the field, including: the nature of biomedical information, the electronic medical record, the role of information and computing technologies to support clinical decision making, healthcare and informatics standards, information retrieval, system analysis and technology assessment, and essential issues of information technology in medical education and medical ethics. By the end of this Web-based course, students are expected to be able to understand broad aspects of the field and can use this as a foundation for further education, training, and work in various types of health information professions.

Prerequisites

Not Required.

Student Learning Outcomes

Upon completion of this course, the learner will:
- Define biomedical informatics and its relationship to related fields, such as biomedicine and computer science.
- Describe the opportunities and challenges of using electronic health record for translational and clinical research
- Demonstrate the use open source tools to indexing and retrieve documents,
- Describe common medical terminologies, their importance in biomedicine and the use of biomedical information;
- Demonstrate proficient use of biomedical literature databases to retrieve relevant articles in a domain of interest, and
- Describe computational tools and resources genomic and phenotypic research.

Required Materials
Robert E Hoyt, Nora Bailey, Ann Yoshihashi. Health Informatics: Practical Guide for Healthcare and Information Technology Professionals (6th Edition) (July 20, 2014 published). Publisher: lulu.com. (eBook ISBN: 978-0-9887529-2-4; Paperback: ISBN 978-1-304-79110-8)

Course Activities and Assignments
Here is a list of required assignments for the grade
- 6 practical exercises at 50 points each
- 10 weekly discussions at 30 points each
- 1 final project and presentation at 400 points

Summary Description of Course Assignments
6 Practical Exercises (50 points each, 300 points total)
Six practical exercises will be given to sharpen the knowledge and skills that you have learned in the class lessons. Exercise guidelines will be distributed at least two weeks prior to each due.

10 Weekly Discussion (30 points each, 300 points total)
10 weekly discussion topics will be posted on the Canvas courseware, and active participation is anticipated. You are to participate in the Discussion board by answering to the given topics or replying to the given topic.

1Term Project (300 points)
Each person will be assigned to further investigate on one of the class topics. Your main job is to create a resource link using one of social media technologies (such as Wiki, blog, personal webpage, etc.) that contains a systematically organized collection of resources for the assigned topic. Your topic should be approved by me, and I will post more detailed instruction about this project by the first week of March.
Course Grading

Sample grading scale for graduate students
        90-100% = A (900-1000 points)
        80 – 89% = B (800-899 points)
        70 – 79% = C (700-799 points)
        Below 70%= E (below 700 points)

Tentative Course Schedule
A linear listing of topics, assignment due dates, and examination dates.

Submission of Assignments
All assignments should be submitted to Canvas courseware by due date to be considered for full credit. The link will be enabled at least two weeks prior to each due.

Attendance Policy
This is a graduate-level course that requires you to study at least 9 hours a week for three-credit course like this one. You may need less time or more time, but be prepared for the fact that some weeks may be busier than others. Having said that, I expect you to log into the courseware (Canvas) at least 3-5 times a week. Your login data will be recorded for my review.

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.

Withdrawal recommendation:

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

Per *Senate Rule 5.2.4.2*, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

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/veteransfor more available resources.

Course Calendar

Date	Topic by lesson	Reading/Viewing	Assignment Dues
8/25 Thur	(Lesson 1) -Overview of Health Informatics	• Textbook, Chapter 1 VideoClips	• Review "About this course" and "Syllabus" • Student Contract • Introduction to Yourself
9/1 Thur	(Lesson 2) -Biomedical Data, Information, and Knowledge	• Textbook, Chapter 2 • VideoClips	• Discussion #1 • Exercise #1
9/8 Thur	(Lesson 3) -Data Analytics	• Textbook, Chapter 3 • VideoClips	• Discussion #2
9/15 Thur	(Lesson 4) -Electronic Health Records	• Textbook, Chapter 4 • VideoClips	• Discussion #3 • Exercise #2
9/22 Thur	(Lesson 5) -Health Information Exchange	• Textbook, Chapter 5 • VideoClips	• Discussion #4
9/29 Thur	(Lesson 6) -Data Standards	• Textbook, Chapter 6 • VideoClips	• Discussion #5 • Exercise #3
10/6 Thur	(Lesson 7) -Health Information Privacy & Security	• Textbook, Chapter 8 • VideoClips	• Discussion #6 • Final Project Topic Due
10/13	REVIEW WEEK (Lesson 1- 7)	• NO READINGS	• NO DUES

Thur			
10/20 Thur	(Lesson 8) -Consumer Health Informatics	1. Textbook, Chapter 10 2. VideoClips	• Exercise #4
10/27 Thur	(Lesson 9) -Online Medical Resources -Search Engines	• Textbook, Chapter 12 & 13 • VideoClips	• Discussion #7
11/3 Thur	(Lesson 10) -Evidence-Based Medicine and Practice Guidelines	• Textbook, Chapter 14 • VideoClips	• Discussion #8 • Exercise #5
11/10 Thur	(Lesson 11) -Telemedicine	• Textbook, Chapter 18 • VideoClips	• Discussion #9
11/17 Thur	(Lesson 12) -Medical Imaging Informatics	• Textbook, Chapter 19 • VideoClips	• Discussion #10 • Exercise #6
11/24 Thur	(Lesson 13) -Bioinformatics	• Textbook, Chapter 20 • VideoClips	NO DUES
12/1 Thur	Final Project Presentation	• Review assigned presentation	• Final Project Due
12/8 Thur	NO LESSONS	NO READINGS	• Final Project Peer-review Due

End of documentation