LIS/CJT639 (Sec201)
Introduction to Medical Informatics (Web-based course)
Spring 2008

School of Library Information Science
University of Kentucky

Instructor: *Sujin Kim, Ph.D.*
Assistant Professor
Office: 339 Lucille Little Fine Art Library Building
Office Hour (Online/Offline): Wednesdays, 10A to Noon
or by appointment
Online class: Every Saturdays
In-Class Meeting: 1:30P-4P, Saturday, January 12, 2008
In-Class Meeting: 1:30P-4P, Saturday, April 26, 2008

NOTE: This syllabus is subject to change (minor change). Last modified: February 3, 2008

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1. **Course Description/Objectives (SLIS 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.

2. **Expectations/General Course Policy:**
2.1. This course is an introductory course to teach you interdisciplinary area of medical informatics. Although I assume that you have taken general reference services and resource courses, you may refine your skills in the area of health information. If you do not have the previous reference and retrieval courses or experience, I can happy to assist you or you can consult with medical librarians at the UK Chandler medical center. As you know, this is a graduate-level course which requires you to study at least *9 hours a week for a three-credit course* like this one. You may need less time, but be prepared for the fact that some weeks may be busier than others.

2.2. Students are expected to do all of their graded work independently (unless instructed to do otherwise) and, in general, to engage in ethical behavior regarding academic work. Any evidence of cheating and/or plagiarism will be dealt with immediately per university regulations. For details regarding cheating and plagiarism please refer to Section 6.4.0-1 of the Student Rights and Responsibilities Handbook (http://www.uky.edu/StudentAffairs/Code/) and Section 6.3 of the University Senate Rules (http://www.uky.edu/USC/Section%20VI.pdf) for details.

2.3. The challenges related to teaching a course on-line are non-trivial. In particular, it requires that students make serious efforts to keep up with readings and work, take advantage of the communication mechanisms and other tools built into the Blackboard courseware, and to continually self-assess yourself to ensure that you have a grasp of the subject matter. It is particularly important to log onto the course often in order to keep up with the topics being discussed.

3. **Readings:**

- Shortliffe, E. H., & Perreault, L. E. (Eds.). (2006). Biomedical Informatics: Computer Applications in Health Care and Biomedicine (3rd ediction.). New York: Springer.
- Van Bemmel, J. H., & Musen, M.A. (Eds.). Handbook of Medical Informatics. Bohn: Springer. Retrieved January 7, 2008, from http://www.mieur.nl/mihandbook/r_3_3/toc/toc.htm
- Other readings as assigned. Articles, book sections, online sources, etc.

Readings will supplement and enhance the topics covered. The assigned readings are necessary for lecture notes, discussion, and review activities assignments prior to individual lessons. The book chapters and article readings should be something interesting that you think will help you understand more about medical informatics. According to individual topic, the required readings are listed in the course reading list.

4. Online and Offline Class meetings:
4.1. Although we will not have face-to-face meeting each week, I assume this online class is in session every Saturdays unless further/special notice is given. The course will be taught through a series of individually designed weekly lessons, each of which relates to a specific area in science and technology resources and services. Each weekly lesson will consist of one to four learning units and it will be posted on Blackboard Course Document Folder before Saturday Noon. Therefore, it is very important to be familiar with Blackboard

Courseware (please check Blackboard homepage to find out further information available at http://elearning.uky.edu/index.html)

4.2. There will be only TWO FACE-TO-FACE CLASS MEETINGS including *1/12/2008 and 4/26/2008 between 1:30P and 4P.*

5. The Blackboard Course Page:
The Blackboard course is a main course tool for this class and you will be required to keep a stable Internet connection to keep up all the relevant course materials and activities. Students should be aware that Blackboard keeps records of the dates and times they use various sections of the class page. The following information about course folders is to give you general understanding of individual course folder. Please consult with me or UK Blackboard Student Help and Support available at https://www.uky.edu/Blackboard/student.php

5-1. Announcements
These appear first whenever the student logs in to the class site. Important and official announcements may appear at any time during the course and students should log in no less often than every other day.

5-2. Course Information
This syllabus and the course related materials can be found here. Links to mid-term and final exam will be given in this folder.

5-3. Staff Information
This link includes information about my contact information. My personal homepage is also linked for your reference about my teaching, research, and project details.

5-4. Course Documents
This section of the course site will have documents and folders of lecture notes/slides, readings, source lists, web links, and other materials will be posted in this folder. Lecture notes/slides for each week will be provided either in Microsoft PowerPoint slides (MHTML) format or in PDF format for your convenience.

5-5. Assignments
Here are the instructions for completing assignments (e.g., assignment guidelines and links to Assignment Drop folders will be provided in this folder). The individual links to Assignments will be given as needed and this link is where you will deposit all of your assignments. Your assignments MUST have your name in the title of the file and in the document itself (preferably in the header or footer) if you want full credit for your work. For instance, one can see that a file named SujinKimAssignment1.doc is student Sujin Kim's assignment 1. I have no idea who turns in an assignment file labelled with "Assignment 1.doc"!

5-6. Communication
(NOTE: Any official announcements will be posted on Blackboard Announcement page).

I can communicate with students between classes in several ways.
● Most questions about homework and material availability should be posted to the appropriate Discussion Board. Course Q&A section of the Discussion Board has been created for students to ask each other questions regarding the course in general. Often, simple problems can be resolved by utilizing this mechanism. Professionals constantly interact and collaborate with each other online. This is one place where each student can share the expertise or experience they have with the rest of the class.
● For private matters, students can directly communicate with me through email at sujinkim@uky.edu Given that I am teaching two online courses, please understand that it may take up to 48 hours to respond to some emails, although most will be responded to before then. If several students have emailed similar concerns, I may try to address these with one email to the entire class.
● Students can communicate with me during office hours (Wednesdays, between 10A and Noon) or by appointment. My office is located in 339 Lucille Little Building. You can also reach me at 859-257-8657.

However, emailing is better than telephone contact.
- Synchronous conversation by telephone or private online chat through Blackboard, *during my office hour* (or by appointment) is also available if needed. I will utilize synchronous communication such as "chat" and "office hours" available through Blackboard soon. Any of these sessions may be recorded. Read the User Manual (Under "Tools") to learn how to use the live chat!

5-7. External Links
These are links to websites and web pages used in the course. Hint: They are usually easier to use if you right click on the link and choose "Open Link in New Window".

5-8. Tools
My Grades is where I will post your grades. Note that each assignment is weighted. For example, if an assignment is weighted at 10%, it will contribute 10 points to your final grade if you get 100% of it right, and 9 points if you get 9%, etc. The User Manual is very important. Use it!

6. Grading and Assignments:
6.1. Mid-term and Final exams (30%)
6.2. Review Activities: 7 Quizzes and 2 Exercises (20%)
6.3. Discussion and Class Participation (10%)
6.4. Reading Summary Log and Learning Evaluation Essay (10%)
6.5. Final Project: Review of Literatures and Presentation (30%)

Grading Scale:
- 90‑100   A
- 80‑89.9   B
- 70‑79.9   C
- 69.9 or less Fail

6-1. Mid-term and Final exam (30%)
Mid term and final exam will be administered online through *Blackboard courseware* between 1:30P and 4P on Saturday, March 1, 2008 and April 19, 2008 respectively. More detail information about the exams will be given in later part of class. It is very important to keep a secure Internet connection while taking exams. It is highly preferred to use DSL or high-speed Internet connection. You should report any unexpected problems me immediately, if occurs. The failure to do so may causes the loss of your point.

6-2.Review Activities: 7 Quizzes and 2 Exercises (20%)
Either weekly quiz or exercise will be posted after each lesson. Further detail will be announced.

6-3. Discussion and Class Participation (10%)
To get full credit for class participation, you are to reply to online discussion to be assigned for 8 individual topics as needed. Discussion topics will be announced in Blackboard Discussion Board. Reply to answer and discuss about the topic given for each week. Further detail will be announced each assigned weeks.

6-4.Reading Summary Log and Learning Evaluation Essay (10%)

- Note: All 8 reading summaries should be compiled in one file along with the learning evaluation essay due by April 12, 2008. However, you are to keep your summary by each due date assigned.
- (Step 1): The reading summary log should include the following points: (1) What is the article about?; (2) What is the level of difficulty?; (3) Your comments: e.g., What did you get out of the article?; (4) Did the author get his or her point across?; (5) Did you learn something new?
- (Step 2): Once you complete all of the weekly reading summaries, you are to include overall review of your learning experience in the last section of your log as an evaluation essay format. For leaning

evaluation essay part, the act of stepping outside yourself and examining your thoughts and your work is a valuable habit to cultivate as you prepare yourself for life-long learning. I want you to reflect on your learning during the semester (due date can be found in course calendar). If you have never thought about yourself as a learner; never studied your learning style, this is an opportunity to begin. There is not right or wrong way to write the learning evaluation essay. Possible approaches and questions to write this learning evaluation essay for yourself include: what did you discover for yourself?; what experiences made you feel informative about medical informatics?; what obstacles did you face and how did you overcome them?; were you able to observe yourself in the process of learning?; did you identify your learning style?; and did you apply any knowledge and experience to your life experiences outside of formal education. Whatever approaches you choose, I advise you not to wait until the last minute to turn in. Jot down ideas for each week, and be sure to save some critiques from me and your fellow students (if you can collect any). At minimum, your essay should be two double-spaced pages (less than 1000 words). You will be given an Assignment Drop link in the Blackboard's Assignment folder.

6-5. Final Project: Literature Reviews and Presentation (30%)
This review paper will be based on a topic of your choice. Your instructor will be distributed the topics that are related to some way to medical informatics or the health information profession in general. This review paper should be approximately 15-20 pages, double-spaced, page numbers on the bottom, center no more than 1.25" margins, a descriptive yet concise title on a separate title page that includes your name. Use a consistent reference style of your choice (e.g. APA writing style preferably), and please use Microsoft Word. Further information will be posted.

7. Submitting Assignments:
Assignments should be submitted using the Assignment folder feature through Blackboard courseware. Please use MS Word for written assignments. PLEASE FOLLOW THE FILE NAMING CONVENTION AS INSTRUCTED BELOW. Be sure to include your name on top of inside each assignment as well as file name

(ex. For Literature Review: LitRev_LastName_FirstName.doc;
For Presentation Slides: Presentation_LastName_FirstName.doc
For Reading Summary Log and Learning Evaluation Essay: ReadingLearning_LastName_FirstName.doc;
For Exercise: Exercise1_Lastname_FirstName.doc).

8. Late Policy:
Assignments that are turned in late will be marked one letter grade lower unless prior approval from the instructor has been obtained. It will be based on time stamp provided by Blackboard. (NOTE: Only assignments submitted no later than one week after original due date will be graded.)

9. Special Considerations:
If you have a disability that requires special testing accommodations or other modifications, please, notify both the instructor and Disability Resources and Services by the second week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, contact and visit the UK Disability Student Resource Center at
http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/

10. Course Calendar:
- In this course calendar, 12 lessons are listed. For each lesson, subtopics are given for each week.
- *Note* column gives you important due dates and relevant information.
- Each week's readings are for PROSPECTIVE STUDY before you study each lecture notes.
- Nine Review Activities (7 quizzes and 2 exercises) are assigned for your RETROSPECTIVE STUDY after you study each lesson.
- Nine discussions are assigned for you to participate in the class discussion after you study each lecture notes. The calendar is subject to change for minor revision (or updates) and will be posted in BB announcement as needed.

	Topic	Note
1/12	**Lesson 1:** -Course logistics, -Blackboard Features, -Intro. to Medical Informatics and Healthcare	• Course syllabus and Blackboard course homepage should be fully understood!
1/19	**Lesson 2:** -Medical Data, Information, and Knowledge	Due by:11:59pm, Saturday, 1/19/2008 • Student Contract • Introduction to yourself (Post it to Discussion Board) • Reading Summary #1 (about Lesson 2)
1/26	**Lesson 3:** -Electronic Medical Record (EMR)	Due by:11:59pm, Saturday, 1/26/2008 • Review Activity #1: Quiz (about Lesson 2) • Discussion #1 (about Lesson 2) • Reading Summary #2 (about Lesson 3)
2/2	**Lesson 4:** -Essential Concept for Medical Computing	Due by:11:59pm, Saturday, 2/2/2008 • Review Activity #2: Quiz (about Lesson 3) • Discussion #2 (about Lesson 3) • Reading Summary #3 (about Lesson 4)
2/9	**Lesson 5**: -Controlled Vocabulary: Standards in Medical Informatics	Due by:11:59pm, Saturday, 2/9/2008 • Review Activity #3: Quiz (about Lesson 4) • Discussion #3 (about Lesson 4) • Final Project Part A (Topic and Bibliography) • Reading Summary #4 (about Lesson 5)
2/16	**Lesson 6**: -Information Retrieval System I	Due by:11:59pm, Saturday, 2/16/2008 • Review Activity #4: MeSH (about Lesson 5) • Discussion #4 (about Lesson 5) • Reading Summary #5 (about Lesson 6 & Lesson 7)
2/23	**Lesson 7**: -Information Retrieval System II	Due by:11:59pm, Saturday, 2/23/2008 • NO REVIEW ACTIVITY • NO DISCUSSION • NO READING
3/1	Mid-Term (NO CLASS LESSON)	1:30P-4P, Saturday, 3/1/ 2008 (Blackboard exam)
3/8	**Lesson 8**: -Bioinformatics	Due by:11:59pm, 3/8/2008 • Review Activity #5: PubMed (about Lesson 6 & 7) • Discussion #5 (about Lesson 6 & 7) • Reading Summary #6 (about Lesson 8)
3/15	Spring Break (No class)	• NO REVIEW ACTIVITY • NO DISCUSSION
3/22	**Lesson 9**: -Medical Decision Making	Due by:11:59pm, 3/22/2008 • Review Activity #6: Quiz (about Lesson 8)

		• Discussion #6 (about Lesson 8)
		• Reading Summary #7 (about Lesson 9)
3/29	**Lesson 10**: -Evidence Based Medicine I	Due by:11:59pm, Saturday, 3/29/2008 • Review Activity #7: Quiz (about Lesson 9) • Discussion #7 (about Lesson 9)
4/5	**Lesson 11**: -Evidence Based Medicine II	Due by:11:59pm, Saturday, 4/15/2008 • Review Activity #8: Quiz (about Lesson 10) • NO DISCUSSION • Final Project Part B (Review Paper Due) • Reading Summary #8 (about Lesson 10 & Lesson 11)
4/12	**Lesson 12**: -Consumer Heath Informatics and Reference Resources	Due by:11:59pm, Saturday, 4/12/2008 • Review Activity #9: Quiz (about Lesson 11) • Discussion #8 (about Lesson 10) • Reading Summary Log and Learning Evaluation Essay Due
4/19	Final Exam	1:30P-4P, Saturday, 4/19/2008 (Blackboard exam)
4/26	Final Project Presentation (IN-CLASS MEETING: 4/26/2008) (355 Lucille Little Building)	PPT Slides Due by:11:59pm, Friday, 4/25/2008 • NO REVIEW ACTIVITY • NO DISCUSSION • Final Project Part C (Paper and Presentation Due)