Course Information

Date Submitted: 4/15/2013

Current Prefix and Number: LIS - Library &Information Science , LIS 639 - INTRO TO MED INFORMATICS

Other Course:

Proposed Prefix and Number: LIS 539

What type of change is being proposed?

Major Change

Should this course be a UK Core Course? No

1. General Information

a. Submitted by the College of: College of Communication and Information

b. Department/Division: Library &Information Science

c. Is there a change in 'ownership' of the course? No

If YES, what college/department will offer the course instead: Select...

e. Contact Person

Name: Will Buntin

Email: will.buntin@uky.edu

Phone: 859-257-3317

Responsible Faculty ID (if different from Contact)

Name: Sujin Kim

Email: skim3@email.uky.edu

Phone: 859-257-8657

f. Requested Effective Date

Semester Following Approval: No OR Effective Semester: Fall 2013

2. Designation and Description of Proposed Course

a. Current Distance Learning (DL) Status: Already approved for DL*

b. Full Title: INTRODUCTION TO MEDICAL INFORMATICS

Proposed Title: INTRODUCTION TO MEDICAL INFORMATICS

c. Current Transcript Title: INTRO TO MED INFORMATICS

Proposed Transcript Title:

d. Current Cross-listing: Same as CJT 639

   Proposed – ADD Cross-listing :   CJT 539, CPH 539

   Proposed – REMOVE Cross-listing: CJT 639

e. Current Meeting Patterns

   Proposed Meeting Patterns

      OTHER: 3

f. Current Grading System: Graduate School Grade Scale

   Proposed Grading System: PropGradingSys

g. Current number of credit hours: 3

   Proposed number of credit hours: 3

h. Currently, is this course repeatable for additional credit?   No

   Proposed to be repeatable for additional credit?   No

   If Yes: Maximum number of credit hours:

   If Yes: Will this course allow multiple registrations during the same semester?   No

2i. Current Course Description for Bulletin: 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 health information professions.

   Proposed Course Description for Bulletin: 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 health information professions.

2j. Current Prerequisites, if any:

   Proposed Prerequisites, if any:

2k. Current Supplementary Teaching Component:

   Proposed Supplementary Teaching Component:

2

3. Currently, is this course taught off campus?   No

   Proposed to be taught off campus?   No

   If YES, enter the off campus address:

4. Are significant changes in content/student learning outcomes of the course being proposed?   No

   If YES, explain and offer brief rational:

5a. Are there other depts. and/or pgms that could be affected by the proposed change?   Yes

   If YES, identify the depts. and/or pgms: College of Public Health has requested a cross-listing of the course with their program.

5b. Will modifying this course result in a new requirement of ANY program?   No

   If YES, list the program(s) here:

6. Check box if changed to 400G or 500: Yes

Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

Interactive Video: No

Hybrid: No

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.

4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?

If yes, which percentage, and which program(s)?

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?

6. How do course requirements ensure that students make appropriate use of learning resources?

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

Courses	Request Tracking

Course Change Form

https://myuk.uky.edu/sap/bc/soap/rfc?services=

[Open in full window to print or save](#)

Generate R

Attachments:

[Browse...]   Upload File

	ID	Attachment
Delete	1741	LIS 539 syllabus Revised.pdf

First   1   Last

Select saved project to retrieve...   ☐   Get   New

NOTE: Start form entry by choosing the Current Prefix and Number
(*denotes required fields)

	Current Prefix and Number:	LIS - Library & Information Science LIS 639 - INTRO TO MED INFORMATICS	*Proposed Prefix & Number*:	LIS 539

*	What type of change is being proposed?	☑ Major Change ☐ Major – Add Distance Learning ☐ Minor - change in number within the same hundred series, except 799 is the same "hundred series" ☐ Minor - editorial change in course title or description which does n change in content or emphasis ☐ Minor - a change in prerequisite(s) which does not imply a change content or emphasis, or which is made necessary by the elimination significant alteration of the prerequisite(s) ☐ Minor - a cross listing of a course as described above

Should this course be a UK Core Course? ○ Yes ⦿ No

If YES, check the areas that apply:

☐ Inquiry - Arts & Creativity	☐ Composition & Communications - II
☐ Inquiry - Humanities	☐ Quantitative Foundations
☐ Inquiry - Nat/Math/Phys Sci	☐ Statistical Inferential Reasoning
☐ Inquiry - Social Sciences	☐ U.S. Citizenship, Community, Diversity
☐ Composition & Communications - I	☐ Global Dynamics

1.	**General Information**
a.	Submitted by the College of: College of Communication and Information Submission Date: 4/15/2013
b.	Department/Division: Library & Information Science
c.*	Is there a change in "ownership" of the course? ○ Yes ⦿ No If YES, what college/department will offer the course instead? Select...
e.*	* Contact Person Name: Will Buntin Email: will.buntin@uky.edu Phone: 859-257-3317 * Responsible Faculty ID (if different from Contact) Sujin Kim Email: skim3@email.uky.edu Phone: 859-257-8657
f.*	Requested Effective Date: ☐ Semester Following Approval OR Specific Term: [2] Fall 2013
2.	**Designation and Description of Proposed Course.**
a.	Current Distance Learning(DL) Status: ○ N/A ⦿ Already approved for DL* ○ Please Add ○ Please Drop
	*If already approved for DL, the Distance Learning Form must also be submitted *unless* the department affirms (by checking this box) that the proposed chang affect DL delivery.
b.	**Full Title:** INTRODUCTION TO MEDICAL INFORMATICS *Proposed Title*: * INTRODUCTION TO MEDICAL INFORMATICS
c.	**Current Transcript Title** (if full title is more than 40 characters): INTRO TO MED INFORMATICS

c.	Proposed Transcript Title (if full title is more than 40 characters):					

d.	Current Cross-listing:	N/A		OR	Currently[3] Cross-listed with (Prefix & Number):	Same as CJT

	Proposed – ADD[3] Cross-listing (Prefix & Number):		CJT 539, CPH 539
	Proposed – REMOVE [3,4] Cross-listing (Prefix & Number):		CJT 639

e. | **Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours [5] for each meeting pattern**

Current:	Lecture	Laboratory[5]	Recitation	Discussion	Indep. Study
	Clinical	Colloquium	Practicum	Research	Residency
	Seminar	Studio	Other	Please explain:	

Proposed: *	Lecture	Laboratory[5]	Recitation	Discussion	Indep. Study
	Clinical	Colloquium	Practicum	Research	Residency
	Seminar	Studio	Other 3	Please explain: Online asynchronou	

f.	Current Grading System:	Graduate School Grade Scale

	Proposed Grading System:*	● Letter (A, B, C, etc.) ⚬ Pass/Fail ⚬ Medicine Numeric Grade (Non-medical students will receive a letter grade) ⚬ Graduate School Grade Scale

g.	Current number of credit hours:	3	Proposed number of credit hours:*	3

h.*	Currently, is this course repeatable for additional credit?	⚬ Yes ● No
*	Proposed to be repeatable for additional credit?	⚬ Yes ● No

	If YES:	Maximum number of credit hours:	
	If YES:	Will this course allow multiple registrations during the same semester?	⚬ Yes ⚬ No

i. | **Current Course Description for Bulletin:**

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 health information professions.

* | **Proposed Course Description for Bulletin:**

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 health information professions.

j. | **Current Prerequisites, if any:**

* | **Proposed Prerequisites, if any:**

k.	**Current Supplementary Teaching Component, if any:**	○ Community-Based Experience ○ Service Learning ○ Both
	Proposed Supplementary Teaching Component:	○ Community-Based Experience ○ Service Learning ○ Both ○ No Change
3.	**Currently, is this course taught off campus?**	○ Yes ● No
*	*Proposed to be taught off campus?*	○ Yes ● No
	If YES, enter the off campus address:	
4.*	**Are significant changes in content/student learning outcomes of the course being proposed?**	○ Yes ● No
	If YES, explain and offer brief rationale:	
5.	**Course Relationship to Program(s).**	
a.*	**Are there other depts and/or pgms that could be affected by the proposed change?**	● Yes ○ No
	If YES, identify the depts. and/or pgms:	
	College of Public Health has requested a cross-listing of the course with their program.	
b.*	**Will modifying this course result in a new requirement[7] for ANY program?**	○ Yes ● No
	If YES[7], list the program(s) here:	
6.	**Information to be Placed on Syllabus.**	
a.	☑ Check box if <u>changed to</u> 400G or 500.	If <u>changed to</u> 400G- or 500-level course you must send in a syllabus and *you must include the differentiation* between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) est. different grading criteria in the course for graduate students. (See *SR 3.1.4.*)

[1] See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair.* If Chair deems the change as "not minor," the form will appropriate academic Council for normal processing and contact person is informed.
[2] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
[3] Signature of the chair of the cross-listing department is required on the Signature Routing Log.
[4] Removing a cross-listing does not drop the other course – it merely unlinks the two courses.
[5] Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting gene least two hrs per wk for a semester for 1 credit hour. (See *SR 5.2.1.*)
[6] You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.
[7] In order to change a program, a program change form must also be submitted.

Submit as New Proposal   Save Current Changes

LIS/CJT539 (Section 201)
Introduction to Medical Informatics (Blackboard Course)
Fall 2011

School of Library Information Science,
College of Communication and Information Studies
University of Kentucky

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Office Hours (Online/Offline): Tuesdays 3:30p.m. -- 5:30p.m.or by appointment
E-mail: sujinkim@uky.edu (Preferred contact)
Expect email replies in 24-48 hours during regular work week
Phone: (859) 257-8657
Fax: (859) 257-4205

Last modified: April 12, 2013

- <u>NOTE:</u> This syllabus is subject to change (minor change).

Table of Contents

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.

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. (Weekly Quizzes, Reading Summaries)
· Describe the opportunities and challenges of using electronic health record for translational and clinical research (Practical Exercise)
· Demonstrate the use open source tools to indexing and retrieve documents (Practical Exercise)
· 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 (Practical Exercise), and
· Describe computational tools and resources genomic and phenotypic research (weekly Quizzes and Reading Summaries).

2. Course Expectations/General Policy:

2.1. Course Expectation

This course is an introductory course to teach you the interdisciplinary area of medical informatics. Although I assume that you have taken general reference services and resource courses, you may need to refine your skills in the area of health information. If you do not have the previous reference and retrieval courses or experience, I am 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. General Policy

Academic honesty
Academic honesty is highly valued at the University. You must always submit work that represents your original words or ideas. If any words or ideas used in a class assignment submission do not represent your original words or ideas, you must cite all relevant sources and make clear the extent to which such sources were used. Words or ideas that require citation include, but are not limited to, all hard copy or electronic publications, whether copyrighted or not, and all verbal or visual communication when the content of such communication clearly originates from an identifiable sources. Please see the University's policies concerning the consequences for plagiarism. Source: www.uky.edu/ombud/plagerism.pdf Policy: www.uky.edu/usc/new/rulesandregulationsmark.htm

Accommodations

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, submit to me a Letter of Accommodation from the Disability Resource Center (www.uky.edu/TLC/grants/uk_ed/services/drc.html). If you have not already done so, please register with the Disability Resource Center for coordination of campus disability services available to students with disabilities.

Religious Observances
Students will be given the opportunity to make up work (typically, exams or assignments) when students notify their instructor that religious observances prevent the student from doing their work at its scheduled time. Students must notify the course instructor at least two weeks prior to such an absence and propose how to make up the missed academic work.

Inclement weather
The University of Kentucky has a detailed policy for decisions to close in inclement weather. The snow policy is described in detail at http://www.uky.edu/MicroLabs/documents/p-weather.pdf or you can call (859) 257-5684.

Late work 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 the time stamp provided by Blackboard. (NOTE: Assignments more than one week past the original due date will not be graded.)

Excused absences policy
Attendance, excused absences and make-up opportunities for this course will conform to the course policies established by the Office of Academic Ombud Services as found at www.uky.edu/Ombud/policies.php

2.3. The challenges related to teaching and taking a course on-line are not trivial. In particular, it requires that you make serious effort to keep up with readings and work, take advantage of the communication mechanisms and other tools built into the Blackboard courseware, and continually 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. Textbook/Required Readings:

- Shortliffe, EH., & Cimino JJ. (Eds.). (2006). Biomedical Informatics: Computer Applications in Health Care and Biomedicine (3rd edition.). New York: Springer.
- Weekly article readings (or Web sites or database reviews or other resources) are assigned and can be found in the Course Calendar in the last section of this syllabus.

Note: Supplementary readings will be posted as necessary to enhance the topics covered each week. The assigned readings are necessary to understand the lecture notes, to participate in discussion, and to complete the quizzes. Required readings for each topic are listed in the course calendar below.

4. Class Hours (online class and face-to-face class):

4.1. There are 16 weeks assigned for 13 regular lessons, one academic holiday (no class: Spring break), one online-presentation, and one final exam (online blackboard exam). There is no in-class meeting scheduled for this class. Although we will not have face-to-face meetings each week, I assume this online class is in session every Saturday unless further/special notice is given. You do not have to be online during this class. The course

lecture notes will be posted by every Saturday morning and other class-related activities are also scheduled on Saturdays. Details about due dates are included in the course calendar. The course will be taught through a series of individually designed weekly lessons, each of which relates to a specific area in medical informatics. Each weekly lesson will consist of one to four learning units that will be posted in the Blackboard Course Document Folder by Saturdays. Therefore, it is very important to be familiar with Blackboard Courseware. Please check Blackboard homepage to find further information available at http://elearning.uky.edu/index.html .

5. The Blackboard Course Page:

The Blackboard course page is a main tool for this class and you will be required to maintain a stable Internet connection to keep up with the 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 a general understanding of the individual course folder. Please consult with me or UK Blackboard Student Help and Support available at http://wiki.uky.edu/blackboard/Wiki%20Pages/Bb9%20Student%20Menu.aspx

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 at least every other day. As a complementary way to reach you, the announcement messages will be sent to you via the email address with which you are registered with Blackboard. It is noted that the Blackboard emailing service has unexpected problems from time to time. Therefore, the official announcements will be posted in the Blackboard Announcement page.

5-2. Course Information
This syllabus and the course related materials can be found here. Links to project guidelines, final exam, and other course related materials will be posted in this folder.

5-3. Staff Information
This link includes 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 contains documents and folders of lecture notes/slides, readings, source lists, web links, and other materials. 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). Due dates are given in the Course Calendar pages 6-10. 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 both filename and 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 SujinKimExercise1.doc is student Sujin Kim's exercise 1. I have no idea who turns in an assignment file labelled "Assignment 1.doc"!

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

I can communicate with students between classes in several ways.
- Most frequently asked questions about homework and material availability will be posted to the appropriate Discussion Board. A 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 students 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 have other research and service related duties, please understand that it may take up to 48 hours to respond to some emails, although I will try to respond to most before that. 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 (Tuesdays, between 3:30 p.m. and 5:30 p.m.) or by appointment. My office is located in 339 Lucille Little Fine Art Library 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 hours* (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
Under the link to Tools, you can see *My Grades* 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 90%, etc. You may want to wait to receive a total grade for an individual assignment until you complete each assignment category. The User Manual is very important. Use it!

6. Grading and Assignments:

6.1. Quizzes (20%)
6.2. Exercises (20%)
6.3. Discussion/Participation (20%)
6.4. Learning Log and Evaluation Essay (10%)
6.5. Term Project (30%) (graduate students) / Reading summaries (30%) (undergraduate students)

Undergraduate Grading Scale – 500 total points possible:
- 90-100   A
- 80-89.9   B
- 70-79.9   C
- 60-69.9   D
- 0-59.9   Fail

Graduate Grading Scale – 500 total points possible:
- 90-100   A
- 80-89.9   B
- 70-79.9   C
- 69.9 or less   Fail

6-1. Quizzes (20%) 10 quizzes at 10 points each = 100 total points
You are to take 10 weekly quizzes. Quizzes are based on the contents of course readings, course notes, and discussion topics. Mixture of multiple choices/answers, short answers, and short essay will be asked. When you prep the quiz, focus more on textbook chapter and lecture notes than the details of the assigned articles. The links to the quizzes will be open from Saturday 6am until Sunday Midnight.

6.2. Exercises (20%) 2 exercises at 50 points each = 100 total points
Three exercises will be given for you 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 the class.

6-3. Discussion/Participation (20%) 100 total points
10 weekly discussion topics will be posted on the Discussion page, and active participation is required. You are to participate weekly in the Discussion board by posting or replying to the given topic. A discussion moderator for each week will be assigned to facilitate and summarize the discussions by the end of each week.

6.4. Learning Log and Evaluation Essay (10%) 100 total points
You are to include an overall review of your learning experience twice a semester (dates are given in the course calendar below). For the learning 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. At minimum, your essay should be two double-spaced pages (no more than 1000 words). You will be given an Assignment Drop link in Blackboard's Assignment folder.

6.5. Term Project (30%) for graduate level students 100 total 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 October.

> **Commented [S1]:** For 500 level student, a term project is not required. Instead, students in 500 level requires logging reading summaries (1 page long for individual readings assigned).

6.5. Reading summaries for undergraduate level students: (30%) 100 total points
You are to summarize your readings assigned for each week. The length of the summary is limited to 1000 words. By the end of the semester, you are asked to submit the reading summaries that reflect your learning from your readings. The readings include both textbook chapters and articles assigned.

> **Commented [S2]:** This is a requirement for undergraduate students with 500 level.

7. Submitting Assignments:

Assignments should be submitted using the Assignment folder feature through Blackboard courseware. Use MS Word for written assignments. **Please follow the file naming convention as instructed below.** Be sure to include your name in the header of each assignment as well as in the file name.

(ex. For exercises;	Exercise1LastnameFirstname.doc
For term project:	TermprojectLastnameFirstname.doc,
For presentation Slides:	PresentationLastnameFirstname.doc, and
For learning Evaluation Essay:	Learning1LastnameFirstname.doc)

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 available free for students:

https://iweb.uky.edu/MSDownload/

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

Center for the Enhancement of Learning and Teaching (CELT)
http://www.uky.edu/celt/
859-257-8272
Information Technology Customer Service Center (UKIT)
http://www.uky.edu/UKIT/
859-257-1300

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 number: (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
Course Reserves
http://www.uky.edu/Libraries/page.php?lweb_id=23&ltab_rank=3

Course Calendar:

- In this course calendar, 16 weeks are scheduled, including 13 individual course lessons, one academic holiday (Thanksgiving Break), and 1 term project presentation (online).
- Each Saturday before Noon, I will post class lecture slides/notes for your study. You are given a whole week to review course materials including course lecture slides/notes, one or two required textbook chapter(s) and the assigned articles. While you are reviewing course materials, you are asked to participate in the course discussion. Active participation for the discussion will be graded. Once you are done with your weekly study, you are asked to take weekly quiz for your weekly review by Sunday midnight. I will then grade quiz by next Saturday morning (at latest) for your quiz review.
- In addition to each week's course topic (along with subtopics), this calendar provides you an overview of the entire schedule of the assignments and due dates. The *Note* column gives you important due dates and relevant information. Minor changes can be made, if necessary.
- For your assignments, you will be given 10 quizzes, 10 discussions, 2 learning log/evaluation essays, 3 exercises, and three separate dues for the final project are scheduled in this calendar.

Week	Date	Topic	Reading (*Textbook and Articles*)	Note (Assignment/Quiz Dues)
1	8/27	**(Lesson 1)** -Course logistics -Blackboard Features --Overview of BMI	• Shortliffe et al. (2006) Ch: 1 • YouTube video Clip by Edward Shortliffe about Biomedical Informatics. Lecture given at the OSU Medical Center on 3/17/2011. Available at: http://www.youtube.com/watch?v=ii-NqmQIlp8 (Duration 1h20m14s). • Bernstam, EV, Smith JW and Johnson, TR. (2010). What is biomedical informatics?. *J Biomed Inform.* 43(1):104. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2814957/pdf/nihms-139040.pdf	1. Course syllabus and Blackboard course homepage should be fully understood!
2	9/3	**(Lesson 2)** -Medical Data, Information, and Knowledge	• Shortliffe et al. (2006) Ch: 2 • Olga Brazhnik and John F. Jones.(2007). Anatomy of Data Integration. *J Biomed Inform.* 40(3): 252–269. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2094006/pdf/nihms25350.pdf/?tool=pmcentrez • Manion FJ, Robbins RJ, Weems WA, and Crowley RS. (2009). Security and privacy requirements for a multi-institutional cancer research data grid: an interview-based study *BMC Med Inform Decis Mak.* 9: 31. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2709611/pdf/1472-6947-9-31.pdf/?tool=pmcentrez • Cheung, KH et al. (2008). Semantic mashup of biomedical data, *J Biomed Inform.* 41(5):683-686. Available at: http://www.sciencedirect.com/science/article/B6WHD-4T6CCYP-1/2/0a63dd29eb8c964d0e457b3a6e6753ff	Due by Midnight, Sun 9/4/2011 1. Discussion #1(Post it to Discussion Board) 2. Quiz #1 about Lesson 1, the link is available between 6a.m. Saturday, 9/3/2011 and midnight Sunday, 9/4/2011 3. Student Contract (Drop into Assignment folder)
3	9/10	**(Lesson 3)**	• Shortliffe et al. (2006) Ch: 5 & Ch.6	Due by Midnight, Sun 9/11/2011

		- Essential Concept for Medical Computing -Database Design	• Pace WD. (2003). Database Design to Ensure Anonymous Study of Medical Errors: A Report from the ASIPS collaborative. *J. Am. Med. Inform. Assoc.* 10(6):531-540. Available at: http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=264430&blobtype=pdf	1. Discussion #2 2. Quiz #2 about Lesson 2, the link is available between 6 a.m. Saturday, 9/10/2011 and midnight Sunday, 9/11/2011 3. Decide your term project topic 4. Assign moderator week
4	9/17	**(Lesson 4)** - Controlled Vocabulary: Standards in Medicine	• Shortliffe et al. (2006) Ch: 7 • Cimino, JJ. 1998. Desiderata for controlled medical vocabularies in the twenty-first century. *Methods of Information in Medicine.* 37 (4-5) 394-403. Available at: http://courses.mbl.edu/mi/2009/pubs/cimino_desiderata.pdf • Cimino, JJ. 2006. In defense of the Desiderata. *J Biomed Inform.* 39(3):299-306. Available at: http://courses.mbl.edu/mi/2009/pubs/cimino_defense.pdf • Smith, B. et al. (2007). The OBO Foundry: coordinated evolution of ontologies to support biomedical data integration, *Nature Biotechnology*, 25:1251-1255. Available at: http://www.nature.com/nbt/journal/v25/n11/pdf/nbt1346.pdf	Due by Midnight, Sun 9/18/2011 1. Discussion #3 2. Quiz #3 about Lesson 3, the link is open between 6 a.m. Saturday, 9/17/2011 and midnight Sunday, 9/18/2011
5	9/24	**(Lesson 5)** - Medical Decision Making	• Shortliffe et al. (2006) Ch: 3 and Ch: 20 • Garg AX, Adhikari NKJ, McDonald H, et al. (2005). Effects of Computerized Clinical Decision Support Systems on Practitioner Performance and Patient Outcomes: A Systematic Review. JAMA.293(10):1223-1238.Available at: http://jama.ama-assn.org/content/293/10/1223.full • Aronsky D. (2001). Evaluation of a Computerized Diagnostic Decision Support System for Patients with Pneumonia: Study Design Considerations, *J Am Med Inform Assoc* 8(5):473-485. Available at: http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=131045&blobtype=pdf	Due by Midnight, Sun 9/25/2011 1. Discussion #4 2. Quiz #4 about Lesson 4, the link is open between 6 a.m. Saturday, 9/24/2011 and midnight Sunday, 9/25/2011
6	10/1	**(Lesson 6)** - Electronic Medical Record (EMR)	• Shortliffe et al. (2006) Ch: 12 • Jha AK, DesRoches CM, Campbell EG, Donelan K, Rao SR, Ferris TG, Shields A, Rosenbaum S, Blumenthal D. (2009). Use of electronic health records in U.S. hospitals. *N Engl J Med.* 16;360(16):1628-38. Available at: http://www.nejm.org/doi/pdf/10.1056/NEJMsa0900592 • Blumenthal D, Tavenner M. (2010). The	Due by Midnight, Sun 10/2/2011 1. Discussion #5 2. Quiz #5 about lesson 5, the link is open between 6 a.m. Saturday, 10/1/2011 and midnight Sunday, 10/2/2011 3. Exercise #1

			"Meaningful Use" Regulation for Electronic Health Records. *N Engl J Med*. 5;363(6):501-4. Available at: http://www.nejm.org/doi/pdf/10.1056/NEJMp1006114 • Hassol A et al. (2004). Patient Experiences and Attitudes about Access to a Patient Electronic Health Care Record and Linked Web Messaging. *J Am Med Inform Assoc* 11: 505-513. Available at: http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=524631&blobtype=pdf	
7	10/8	**(Lesson 7)** -Information Retrieval System	• Shortliffe et al. (2006) Ch: 19 • Wilczynski NL et al. (2004). Developing optimal search strategies for detecting clinically sound prognostic studies in MEDLINE: an analytic survey. *BMC Med*. 9;2(1):23. Available at: http://www.biomedcentral.com/1741-7015/2/23 • Wong SS, Wilczynski NL, Haynes RB. (2006). Comparison of top-performing search strategies for detecting clinically sound treatment studies and systematic reviews in MEDLINE and EMBASE. *J Med Libr Assoc*. 94:451-5. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1629423/?tool=pubmed • Kastner M, Wilczynski NL, McKibbon AK, Garg AX, Haynes RB. (2009). Diagnostic test systematic reviews: bibliographic search filters ("Clinical Queries") for diagnostic accuracy studies perform well. *J Clin Epidemiol*. 62:974-81. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2737707/pdf/nihms138284.pdf	Due by Midnight, Sun 10/9/2011 1. Discussion #6 2. Quiz #6 about Lesson 6, the link is open between 6 a.m. Saturday, 10/8/2011 and midnight Sunday, 10/9/2011 3. Term Project Part A (Resource Bibliography)
8	10/15	**(Lesson 8)** -Evidence Based Medicine	• Eldredge, J.D. (2000). Evidence-based Librarianship: an overview. *Bulletin of the Medical Library Association,* 88(4), 289-302. Available at: http://www.pubmedcentral.nih.gov/picrender.fcgi?action=stream&blobtype=pdf&artid=35250 • Dr. David Sackett: Medical Pioneer. Video clip from YouTube (14:18). Available at: http://www.youtube.com/watch?v=Nbd--s2dFY0&feature=fvsr (Evidence-based medicine: McMaster University's Dr. David Sackett and the pioneering work that won him the prestigious Gairdner Award.)	Due by Midnight, Sun 10/16/2011 1. Discussion #7 2. Quiz #7 about Lesson 7, the link is open between 6 a.m. Saturday, 10/15/2011 and midnight Sunday, 10/16/2011 3. Leaning log and evaluation essay #1
9	10/22	**(Lesson 9)** -Bioinformatics	• Shortliffe et al. (2006) Ch: 22 • Bayat A. (2002). Science, medicine, and the	Due by Midnight, Sun 10/23/2011 1. Discussion #8

				2. Quiz #8 about Lesson 8, the link is open between 6 a.m. Saturday, 10/22/2011 and midnight Sunday, 10/23/2011 3. Exercise #2
10	10/29	**(Lesson 10)** - Biomedical Imaging	• Shortliffe et al. (2006) Ch: 9 and Ch: 18 • Foran DJ, Yang L, Chen W, et al. (2011). ImageMiner: a software system for comparative analysis of tissue microarrays using content-based image retrieval, high-performance computing, and grid technology. *J Am Med Inform Assoc*. 2011 July; 18(4): 403–415. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3128405/pdf/amiajnl-2011-000170.pdf • Deserno TM, Antani S, and Long R. (2008). Ontology of Gaps in Content-Based Image Retrieval. *J Digit Imaging*. 2008 Feb 1. [Epub ahead of print]. Available at: http://www.springerlink.com/content/x554247727h481v1/fulltext.pdf	Due by Midnight, Sun 10/30/2011 1. Discussion #9 2. Quiz #9 about Lesson 9, the link is available between 6 a.m. Saturday, 10/29/2011 and midnight Sunday, 10/30/2011
11	11/5	**(Lesson 11)** -Consumer Health Informatics -Telemedicine	• Shortliffe et al. (2006) Ch: 14 • Eysenbach G, Powell J, Kuss O, Sa ER.Eysenbach G. Powell J. Kuss O. Sa . (2002). Empirical studies assessing the quality of health information for consumers on the world wide web: a systematic review *JAMA*, 287(20):2691-700. Available at: http://yi.com/home/EysenbachGunther/publications/2002/eysenbach2002c-jama-sysrev.pdf • Dellifraine JL, Dansky KH. (2008). Home-based telehealth: a review and meta-analysis. *J Telemed Telecare*. 14(2):62-6. Available at: http://jtt.rsmjournals.com/cgi/reprint/14/2/62	Due by Midnight, Sun 11/6/2011 1. Discussion #10 2. Quiz #10 about Lesson 10, the link is available between 6 a.m. Saturday, 11/5/2011 and midnight Sunday, 11/6/2011
12	11/12	**(Lesson 12)** -Public Health Informatics	• Shortliffe et al. (2006) Ch: 15 • Yasnoff WA, Humphreys BL, Overhage JM, Detmer DE, Brennan PF, Morris RW, etc. (2004). A consensus Action Agenda for Achieving the National Health Information Infrastructure. *J Am Med Informatics Assoc*, 11(4):332-338. Available at: http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=436084&blobtype=pdf	Due by Midnight, Sun 11/13/2011 1. Term Project Part B (Resource Annotation)
13	11/19	**(Lesson 13)** -Health Informatics Ethics and Education	• Shortliffe et al. (2006) Ch: 10 and Ch: 21 • Williamson, HW. (2007). Educating 10,000 informaticians by 2010: the AMIA 10x10 program, *Int J Med Inform*, 76(5-6):377-82. Available at: http://www.billhersh.info/ijmi-07-10x10.pdf • Eysenbach G, Kummervold PE. (2005). Is Cybermedicine Killing You?: The story of a Cochrane disaster. *J Med Internet Res*.,	Due by Midnight, Sun 11/20/2011 1. Exercise #3

Cell for row above table (continued):
future: Bioinformatics. *BMJ*. 2002 Apr 27;324(7344):1018-22. Available at: http://www.bmj.com/cgi/reprint/324/7344/1018

			30;7(2):e21. Available at: http://www.pubmedcentral.nih.gov/articleren der.fcgi?tool=pubmed&pubmedid=15998612	
14	11/26	Thanksgiving Break (Academic Holiday-No Class)	• NO READINGS	No Dues
15	12/3	Web 2.0 and Social Networking	• Van De Belt TH, Engelen LJ, Berben SA, Schoonhoven L.(2010). Definition of Health 2.0 and Medicine 2.0: a systematic review. *J Med Internet Res.* 11;12(2):e18. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/P MC2956229/?tool=pubmed • Hughes B, Joshi I, Wareham J. (2008). Health 2.0 and Medicine 2.0: tensions and controversies in the field. *J Med Internet Res.* 6;10(3):e23. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/P MC2553249/?tool=pubmed	Due by Midnight, Sun 12/4/2011 1. Leaning log and evaluation essay #2 2. Term Project Part C (Resource Collection & Presentation Slides)
16	12/10	Final Project Presentation (Online)	• NO READINGS	Due by Midnight, Sun 12/11/2011 1. Presentation Peer-review

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