Guidelines for the Health Informatics Research Project (IPHI 860)
KUMC Health Informatics Master’s Degree Program

The purpose of the Health Informatics Research Project course (IPHI 860) is to apply the research methods learned in the NRSG 754 or HP&M 819 research courses.

Identifying a Research Advisor
1. Mid-semester prior to enrolling in IPHI 860, investigate the research interests of faculty by reading through their bio sketches on the KUMC website. You may work with any KUMC faculty member that has a "regular graduate faculty appointment". Identify a few whose areas of research sound interesting to you.
   a. Informatics
   b. Nursing Faculty
   c. Public Health Faculty
   d. Health Policy & Management Faculty
2. Contact the Center for Health Informatics (CHI) to discuss a strategy for your research project. Dr. Manos or Teresa Stenner can guide you in selecting a research advisor who is knowledgeable in your chosen research area and who has a regular graduate faculty appointment.
3. Phone or send a brief email to your selected potential research advisor and outline:
   a. Asking whether they have any research projects with which they need help.
   b. What you find interesting about their research topic
   c. What program you are in (including discipline-specific emphasis)
   d. What your skills/background can offer them to help further their research. Use concrete examples when you can. See example project ideas in the section below.
   e. The semester in which you plan to enroll in IPHI 860 and your on/off campus availability
   f. Offer to set up a short meeting to discuss options with them
4. If the research advisor gives you permission to enroll in 860 with them as an instructor, get this documented in an email and forward it to the CHI Program Manager who will provide a permission number to enroll in IPHI 860 or refer you to the correct person to get a permission number for NRSG 898.
5. If requested by your research advisor, complete the KUMC Tutorial for Human Subjects Protection. The certificate must be printed while online and a copy submitted to your research advisor.
Research Project Topic Suggestions

A. Assist KUMC Faculty in Conducting Their Research Project

IPHI 860 students may work on faculty research projects that are not informatics related.

1. **Integrative Literature Review**: Write an integrative review of the literature on a given topic to summarize, analyze, and critique the state of the science about a specific research topic. Use a recognized integrative review method to evaluate previously conducted research studies. For examples, see the following source: *Fink, A. (2005). Conducting research literature reviews: From the internet to paper. Thousand Oaks, CA: Sage Publication.*

2. **Research or Grant Proposal Development**: Assist a research advisor in the development of a research or grant proposal.

3. **Pilot Study**: Collaborate with a research advisor on conducting a pilot study.

4. **Program Evaluation**: Participate with a research advisor in the design or implementation of the evaluation of a health IT program.

5. **Data**: Collect, enter or code data in conjunction with a research advisor.

6. **Informatics**: Apply informatics knowledge and expertise to fulfill research project requirements (e.g. electronic data collection, social media application, etc.).

B. Conduct Your Own Research Project with Health Informatics Faculty Supervision

Use your knowledge from your informatics courses to research a project of your own design. You will need to arrange with a Health Informatics faculty member for supervision. Examples are listed below.

1. **Ethics**: Investigate selected aspects of an ethical problem related to a specialized area of informatics practice.

2. **Research Utilization**: Complete a research utilization project to apply informatics evidence to policies, programs or practice with the goal of improving outcomes (e.g. apply human factors research to design or re-design a portion of an EHR).

3. **Data Modeling**: Complete a formal data modeling project to capture and translate complex system designs into easily understood representations of the data flows and processes, creating a blueprint for construction and/or re-design of an EHR system.

4. **Work Flow**: Complete a formal work flow to study the way information and people move through a healthcare process in a way that provides a clinician with the right information at the right time with the goal of improving patient outcomes through the use of an EHR.

5. **Usability Evaluation**: Conduct a usability evaluation to assess the experience of users when interacting with an EHR.
Research Paper Requirements

A. Research Proposal (if applicable to your project)
The proposal outlines and guides the development of the project and therefore the paper. It may not apply to all research projects. The student and research advisor create this proposal together at the beginning of the semester.

1. Purpose of the project
2. Significance of the project
3. Research questions to be investigated
4. Research activities to be conducted
5. Proposed deliverables

B. Research Paper Requirements
Upon completion of the project, the student will submit the three items listed below to the research advisor for evaluation. After the research paper is finalized and signed by the research advisor, the student must submit the paper, abstract, and the signed Title Page to the Graduate Program Director of Health Informatics.

1. A scholarly research paper describing the project. This paper should be approximately 25-30 pages in length, including references. As 2-3 iterations of research advisor review and student revision is typical before papers are accepted, plan time into the semester for this to occur. If concise and clear academic writing is not your strength, please make an appointment with the KUMC Writing Center early in your writing process. They are an excellent resource.
2. A one page abstract that includes:
   a. Purpose of the project
   b. Background or context of the project
   c. Research activities conducted for the project
   d. Results of the project
3. A Title Page to be signed by your research advisor and the MSHI Director (see Appendix A)

Graduation Requirements
1. The three research paper requirements mentioned above must be complete before the CHI is allowed to schedule the student’s Oral Comprehensive Examination (OCE) with the KUMC Office of Graduate Studies. The OCE is required during the student’s final semester in the Health Informatics graduate program.
2. Discussion of the research project will also occur during the Oral Comprehensive Examination, thus, the research advisor should be part of the Oral Examination Committee.
APPENDIX A

(This is a sample of the title page to be used for the master's degree research project.)

AN EVALUATION OF THE ELECTRONIC HEALTH RECORD OF HIMALAYAN HAMSTERS

by

Jo Ann Doe*1

B.S., University of Kansas, 1985*2

Submitted to the Center for Health Informatics and the Graduate Faculty of the Health Informatics Program of the University of Kansas in partial fulfillment of the requirements for the degree of Master of Science.

__________________________  _______________________
Faculty Project Advisor Signature   Director of MSHI Program

______________________________  ___________________________
Date Project Accepted *3    Date Approved

*1 Please use full name as you normally use it on official documents.
*2 Undergraduate degree, institution granting the degree, year of graduation
*3 List here the month and year in which the project was accepted. No other date should be given on this page.