

Course Change Request **JUN 15 2009** Indiana University Indianapolis Campus

Check Appropriate Boxes: Undergraduate credit  Graduate credit  Professional credit  **96**

1. School/Division Informatics  
2. Academic Subject Code INFO-I 3. Current Course Number 530 4. Current Credit Hours 3  
5. Current Title Seminar in Health Information Applications  
6. Effective Semester/Year for changes listed below: Fall 2009 7. Instructor: Kharrazi

Type of Change Requested (Check appropriate boxes and indicate changes)

- 8. Change course number to: \_\_\_\_\_ (must be cleared with University Enrollment Services)
- 9. Current course title: Seminar in Health Information Applications  
Change to: Foundations of Health Informatics  
Recommended abbreviation (optional) \_\_\_\_\_  
(Limited to 32 Characters including spaces)
- 10. Current credit hours fixed at: \_\_\_\_\_ or variable from: \_\_\_\_\_ to \_\_\_\_\_  
Change to credit hours fixed at: \_\_\_\_\_ or variable from: \_\_\_\_\_ to \_\_\_\_\_
- 11. Current lecture contact hours fixed at: \_\_\_\_\_ or variable from: \_\_\_\_\_ to \_\_\_\_\_  
Change to lecture contact hours fixed at: \_\_\_\_\_ or variable from: \_\_\_\_\_ to \_\_\_\_\_
- 12. Current non-lecture contact hours fixed at: \_\_\_\_\_ or variable from: \_\_\_\_\_ to \_\_\_\_\_  
Change to non-lecture contact hours fixed at: \_\_\_\_\_ or variable from: \_\_\_\_\_ to \_\_\_\_\_
- 13. Is this course currently graded with S-F (only) grades? Yes \_\_\_\_\_ No \_\_\_\_\_  
Change to S-F (only) grading? Yes \_\_\_\_\_ No \_\_\_\_\_
- 14. Does this course presently have variable title approval? Yes \_\_\_\_\_ No \_\_\_\_\_  
Is variable title approval being requested? Yes \_\_\_\_\_ No \_\_\_\_\_
- 15. Is this course being discontinued? For all campuses \_\_\_\_\_ or for this campus only \_\_\_\_\_
- 16. Current course description Presents an overview of the various professional applications and research directions taken in health informatics. Requires directed laboratory experience.

Change course description to (not to exceed 50 words) This course will introduce the foundations of health informatics. It will review how information sciences and computer technology can be applied to enhance research and practice in healthcare. The basic principles of informatics that govern communication systems, clinical decisions, information retrieval, telemedicine, bioinformatics and evidence-based medicine will be explored.

- 17. Justification for change strengthen the core foundational courses  
(Use additional paper if necessary)
- 18. Are the necessary reading materials currently available in the appropriate library? yes
- 19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of this course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by: Mathew Palakal Date 2/26/2009  
Department Chairman / Division Director  
**Mathew Palakal**

Approved by: Tony Faiola Date \_\_\_\_\_  
Dean  
**Tony Faiola**  
SF Queener Date 6/2/09  
Chancellor / Vice-President

\_\_\_\_\_  
Date \_\_\_\_\_  
Dean of Graduate School (when required)  
Jessie **APPROVED** APR 01 2009 11/09  
CUPT Curriculum Sub-Committee Date

\_\_\_\_\_  
Date \_\_\_\_\_  
University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

**School of Informatics**  
**Foundation of Health Informatics**  
**INFO 530**

**Course Information**

- Credit Hours: 3.0
- Placement in Curriculum: Core course for MS students in Health Informatics
- Prerequisites: Graduate standing or permission of instructor
- Co-requisites: None

**Faculty:** Dr. Hadi Kharrazi (kharrazi@iupui.edu)

**Description:** This course will introduce the foundation of Health Informatics. It will review how information sciences and computer technology can be applied to enhance research and practice in healthcare. The basic principles of informatics that govern communication systems, clinical decisions, information retrieval, telemedicine, bioinformatics and evidence based medicine will be explored.

**Rationale:** This course is designed as an introduction to the foundation of health informatics. The knowledge acquired in this course should act as a stepping-stone for students to prepare themselves for various topics in health informatics. Several topics will be covered including but not limited to health informatics systems and software, medical reasoning, hospital information systems, medical imaging and decision support systems.

**Educational Outline:**

Upon the successful completion of the course, the student will be able to:

1. Analyze the state of the science and current research issues related to the foundation of health informatics.
2. Characterize different domains of health informatics such as decision support systems, medical imaging and laboratory systems.
3. Evaluate a given health information system based on different criteria such as security, embedded decision support systems and classification systems.

## Course Content and Preliminary Lecture Schedule

Week	Topics
Week 1	Introduction and Course Organization
Week 2	System and Software in Health Informatics
Week 3	Communication Systems in Healthcare
Week 4	The Internet and e-Health
Week 5	Medical Data and Decision-Making
Week 6	Protocol Based Systems
Week 7	Medical Language and Classification System
Week 8	Hospital Information Systems
Week 9	Decision Support Systems
Week 10	Spring Break – no class
Week 11	Laboratory Information Systems
Week 12	Medical Imaging Systems
Week 13	Economic Impacts of Health Informatics
Week 14	Health Policies and Ethical Issues
Week 15	Biosurveillance and Bioinformatics

### Required and Recommended Text

Coiera, E., Guide to Health Informatics, Hodder Arnold, 2<sup>nd</sup> Edition, 2004, ISBN: 978-0-340-76425-1

Degoulet, P., Fieschi, M., Introduction to Clinical Informatics, Springer, 2000, ISBN: 0-387-94641-1

### Evaluation and Grading

Assignments 50%

Forums 10%

Paper 40%

**Grading scale:**

Point Range	Grade	Point Range	Grade
97 – 100%	A+	80 – 82%	B-
93 – 96%	A	77 – 79%	C+
90 – 92%	A-	70 – 76%	C
87 – 89%	B+	60 – 69%	D
83 – 86%	B	59 and below	F

**Cheating and Plagiarism**

If students turn in work that was written by someone else, work which was bought, borrowed, stolen, or downloaded from the Internet, and pass it off as their own work, they are cheating. Penalties for this form of plagiarism may range from a lowered grade, to an F for the course, or, in extreme cases, expulsion from IUPUI. Students caught cheating will be penalized and may not receive credit for the exam or assignment.

**Americans with Disability Act:**

If you need any special accommodation due to a disability, please contact Adaptive Educational Services at (317) 274-3241. The office is located in CA 001E.

## **POLICIES for ATTENDANCE & ASSIGNMENT PROJECT DEADLINES**

1. **Missing class course chat time WILL affect your grade.** Students are allowed two (excused or unexcused) absences before their grade will be effected. In other words, whether you are sick or have personal problems or issues for missing class, it will amount to the same. Missing class means you do not show for the whole or majority of the session. The grade reduction policy works in this way.

a. On the third missed class time your final grade will drop 5 points (regardless of the reason).

b. On the fourth missed class your final grade will drop 10 points (regardless of the reason), and 5 additional points there after for each additional class missed.

2. **Responsible for due dates and related materials:** All weekly due assignments are the students' responsibility. If class is missed, the student is still responsible for the assignment, as well as to find out what was covered in class, e.g., any new assignments or variations to an existing assignment. ALL assignment deadlines are outlined in the syllabus or syllabus supplemental documents provided on Oncourse. The instructor will only give one reminder of these dates. In the end, each student is responsible for the deadline. Also, weekly assignment deadlines should be adhered to, to insure fairness to all students. For the purpose of maintaining an equal and fair evaluation of each student's work, no student will receive special treatment. As a result, the following rules will apply to this course:

a. All assignments must be ready to hand in or email at the designated time and place as stated on the assignment sheet, as communicated via email, or on the syllabus.

b. All assignments handed in late will be reduced 10 points for every day late (24 hrs. from the due date and time). For example, if the assignment is due at 6PM on the due date and it is post-marked 6:01PM, it will be reduced automatically by 10 points. If the class meets in the class room, students must be ready to hand the assignment in at the start of class time.

c. Incompletes will NOT be issued except under very extreme personal conditions that have been reviewed by the instructor and in some cases in consultation with the Dean's Office.

## **UNIVERSITY POLICIES**

1. **University Attendance Policy:** Attendance is required. The University regulations state: "Students are expected to be present for every meeting of the classes in which they are enrolled." IUPUI faculty is required to submit to the office of the Register a record of student attendance through the semester, on which they will take action if the record conveys a trend of absenteeism. As a result, ATTENDANCE WILL BE TAKEN IN ALL CLASSES. An Attendance sheet will be passed out in class for each student to sign their name. If you do not sign your name while in class you will be marked absent. The instructor is not expected to remember who attended when, so signing the sheet while in class is important. Signing the attendance sheet for another student is absolutely prohibited. Any student found doing so will be in violation of university policies on ethics and/or conduct.