

**TEXAS A&M UNIVERSITY HEALTH SCIENCE CENTER
SCHOOL OF PUBLIC HEALTH
PHPM 631 Health Information Management Systems (Spring 2016)**

COURSE WEBSITE

<http://pinformatics.tamhsc.edu/phpm631>

You are required to check the class website regularly (at least three times a week) as it will have important class announcements and reading materials.

CLASS SESSION(S)

Course Time: Mondays, 5:30 pm to 8:30 pm

Location: SPH Classroom Building 109

INSTRUCTOR

Hye-chung Kum, PhD, MSW;

Building A, Rm 312; Office hours: schedule via email (kum at tamhsc dot edu)

TEACHING ASSISTANT

Yao Tian (Building A, Rm 308)

Office hours: Wednesday (1:00-3:00 pm) (Building A, Rm 308)

Friday (4:00-6:00 pm) in the computer lab (Classroom Building 119)

COURSE DESCRIPTION

The overall goal of the course is to familiarize students with current issues associated with health information technology (IT) and their impact on the U.S. healthcare system. Health IT applications (e.g., electronic health records, computerized physician order entry systems, decision support systems, health information exchanges, etc) are playing an increasingly important role in the efficiency and effectiveness of healthcare delivery and management.

This course will expose students to (1) current developments in the HIT field and (2) a broad coverage of technology concepts and trends underlying current and future developments in information technology, and fundamental principles for the effective use of computer-based information systems. Through a set of selected outside readings, class lectures, student discussions, and hands on learning we will explore key concepts and issues surrounding the adoption and use of information systems within health care organizations.

This course is intended for students with little or no background in computer technology. The intent is not to train experts in computer technology, but to build enough understanding of the basics of the technology and data so that you can manage IT projects (e.g., evaluate software products and consultants), effectively communicate and collaborate with IT personnel, use data effectively, and ultimately make good decisions about HIT, which are key skills in health care management.

PREREQUISITES

PHPM 601; PHPM 605 or 606 or approval by the instructor.

COURSE REQUIREMENTS

This course requires consistent in-class participation (there is a computer lab hands on component), substantial work outside the classroom (e.g., readings, submission of assignments almost every week, a class presentation) and a final exam.

COURSE EXPECTATIONS

We will meet once a week for a three hour in class session (see next section for details). Students are expected to spend approximately 9 hours outside the class session on assignments and readings.

Required Textbook

There are no required textbooks for this course.

Other Required Readings

There will be required readings every week. These will be posted on the course website. We will spend 20 minutes in each class discussing the readings so it is important that you do the readings and submit the reading log on time.

All students are encouraged to sign-up for *iHealthBeat* (www.ihealthbeat.org), a free daily news digest reporting on technology's impact on health care.

Laptops Recommended for Lab Segment

We will be having labs in class. If you can follow along, it will be better. So please bring your laptop to class if you can. We might be using the lab as well.

Assessment and Grading Policy

Student grades will be based on:

[Homework Assignments & In Class Participation]	[48] points [48%]
[Class Group Presentation].....	[12] points [or 12%]
[Final Exam]... ..	[40] points [or 40%]

Homework Assignments

There will be a homework assignment due almost every week. Homework assignments and related materials will be made available on the course website. **I strongly advise students to begin to work on their homework assignments soon after they are assigned, so that if they need help from the instructor they have time to ask and receive assistance.** The overall weight of the assignments on the final course grade is **48%, HALF the grade**. These include submission of results from in class activities and reading logs. **All assignments are due at 11:59pm the day before the class they are due.**

Reading Logs. Each week all students are required to make one posting on the reading forum on E-campus BEFORE class based on the readings assigned for the class. The posting should be short with two sections: (1) 3 interesting points across all the readings and (2) 1 opinion or thought on what you read. This is free format, and meant to be read by your classmates and instructor. We will randomly pick a few of the postings and read together in class during the discussion section as prompts to the discussion. Grading for this assignment is part of the class participation.

Late Assignments. Each student will be allowed one late assignment, due 7 days from the due date. NO other late assignments or make up will be accepted.

Collaboration: Collaboration on assignments, in class labs and homework, IS encouraged. However, what you hand in must be in your own writing/typing. Good scholarship requires that all collaborations must be acknowledged. **Thus, if you collaborate on the solution of the problem set, I expect that you list your collaborators at the top of the page.** Collaboration on in-class evaluations (quizzes, mid-terms, and the final exams) is, of course, a violation. This includes a discussion of questions on a quiz, midterm, or final with students from sections that has not yet taken the evaluation.

Plagiarism: If you consult any outside sources when doing your work, you are expect to further document these sources. Give credit where credit is due. Plagiarism will not be tolerated. **Coping open source code is permitted as long as credit to the source is given.**

All handed in homework should state at the top any assistance with debugging and programming, as well as citations of any program segments copied from a website.

Learning and Seeking Help: Learning basic concepts in technology requires you learn by actually doing simple tasks using technology and understanding how technology operates at a fundamental level. **You will learn and get as much out of this class as you put into it.** Ask for assistance from your fellow students or from the TA or instructor, especially if you find yourself struggling. But remember in the end, building technology skills are like skill building math classes. Either you know how to do them or not. No amount

of watching others or the instructor do things will suffice for you to build these skills. Only your hard work to work through them will build your skills. It is a lot of work to build these skills, but data and technology skills are highly valuable in the job market in the modern digital world, so it will be well worth your effort. Furthermore, once you learn to think in this manner, it's not something you forget.

Assignments and Exam Schedule

	Date	Assignment Given	Assignment Due	Grade	Presentations (Grade: 12%)
1	1/25/2016	Assignment 1			
2	2/1/2016	Assignment 2	Assignment 1 Email on Presentation	3%	
3	2/8/2016	Assignment 3	Assignment 2	3%	Group 1 (bonus 3 points)
4	2/15/2016				Group 2 (bonus 3 points)
5	2/22/2016	Assignment 4	Assignment 3	8%	Group 3
6	02/29/2016	Assignment 5	Assignment 4	3%	Group 4
7	3/7/2016				GUEST LECTURE
8	3/14/2016	SPRING BREAK			
	3/21/2016	Assignment 6	Assignment 5	8%	Group 5
9	3/28/2016				GUEST LECTURE
10	4/4/2016	Assignment 7	Assignment 6	8%	Group 6
11	4/11/2016				GUEST LECTURE
12	4/18/2016	Assignment 8	Assignment 7	8%	Group 7
13	4/25/2016		Assignment 8	2%	Group 8
14	5/2/2016	Final		40%	

* 5% class participation including reading log

COURSE STRUCTURE & TOPICS

A three hour class session will generally be split into four segments as follows

- 90 minute lecture: Basic concepts and principles will be presented in a lecture
- 10 minute break
- 20 minute presentations: These will be mostly group presentations or guest lectures. On guest lecture days, the time distribution could change.
- 20 minute discussion of the readings
- 40 minute lab: Actively learning via hands on in class activities and discussions (you will be asked to hand in the results of your classroom activities with the corresponding assignments)

The detailed schedule of classes is posted on the course website and will be updated.

The following topics will be covered

- Topics include: fundamentals of computing, hardware, software development tools and processes, relational databases, security, privacy, and Web technology. There will be hands-on exposure to Web programming, database, and managing software development processes.
- How is big data different from traditional sources of data ?
- How do you effectively convert big data to useful information and knowledge?
- What are the privacy issues in using sensitive data for research, and how should we address these issues?

COURSE LEARNING OBJECTIVES

By the end of the course, student will be able to demonstrate knowledge of fundamentals of computing and Health Information Management Systems.

Objectives	PHPM Core Competency Area(s) and/or Skill set(s)
Deconstruct the various components of health information technology systems. Explain how billing and clinical care systems interface with health care organizations.	Core Competency Area(s): Identify the main components and issues of the organization, financing and delivery of health services and public health systems in the United States. Skill set(s): Presentation; Critical thinking; Word Processing; Electronic media including e-mail and social media outlets; Problem solving; Healthcare terminology and acronyms;
Describe the legal and ethical issues of privacy in sensitive health data. Define and explain the different security technology available to protect the sensitive data.	Core Competency Area(s): Describe the legal and ethical bases for public health and health services. Skill set(s): Healthcare terminology and acronyms; Critical thinking; Professionalism; ethics
Analyze the organization and implementation of information technology within health care organizations	Core Competency Area(s): Apply the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives. Skill set(s): Presentation; Critical thinking; Word Processing; Project management; Problem solving;
Demonstrate the ability to manipulate information and data using common software packages Conceive of and describe the different informatics methods to build the required measures for the real world problem (e.g. design, implementation, evaluation, strategize, advocate) using real world raw data available Apply available observational (operational) data and define and describe the limitations which result in selection biases , and measurement validity and reliability issues	Core Competency Area(s): Apply quality and performance improvement concepts to address organizational performance issues. Core Competency Area(s): Apply “systems thinking” for resolving organizational problems. Skill set(s): Database; Spreadsheet; Graphical presentation of data; Access and use vital statistics and other population health indicators; Problem solving; Critical thinking;
Organize management information evidence to communicate to other health care professionals	Core Competency Area(s): Communicate health policy and management issues using appropriate channels and technologies. Skill set(s): Presentation; Graphical presentation of data; Critical thinking; Word Processing; Electronic media including e-mail and social media outlets;
Operate as productive members of a workgroup	Core Competency Area(s): Demonstrate leadership skills for building partnerships. Skill set(s): Presentation Skills, Graphical presentation of data; Team building skills.

OTHER RELEVANT MATERIAL**Attendance and Make-up Policies**

The University views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located on-line at <http://student-rules.tamu.edu/rule07>.

eCampus (Blackboard)

If this course uses eCampus: Within the course's eCampus site you will access the learning materials, tutorials, and syllabus; discuss issues; submit assignments; take quizzes; email other students and the instructor; participate in online activities; and display your projects.

In order to access the course material you will need to go to login into Howdy and then click the eCampus button on the top right or look for Quick Links on the bottom of the School's homepage or go to <http://ecampus.tamu.edu> Please do not contact your instructor with technical problems. If you are having a technical problem with the course, review the Blackboard Learn Tutorials (at the top-right of School's Office of Academic Assessment and Instructional Technology website), or contact John C. Lingsweiler in the School's Office of Academic Assessment and Instructional Technology. John may be reached at (979) 436-9409 or at lingsweiler@sph.tamhsc.edu For login issues (password not working), please contact TAMU Help Desk at helpdesk@tamu.edu via E-mail, or phone to (979) 845-8300. Your eCampus login is the same as your Howdy login (NetID).

Computer Requirements for Online Courses

For this and all online courses we recommend the minimum technical requirements outlined on our "SPH Computer Requirements for Online Courses" web page, located at <http://www.sph.tamhsc.edu/assessment-instructional/com-requirement.html>[distance-education/technical-specifications.html](http://www.sph.tamhsc.edu/assessment-instructional/com-requirement.html#distance-education/technical-specifications.html)

All computing problems or other technical issues not related to eCampus, please contact:

- TAMHSC related account: helpdesk@tamhsc.edu via E-mail, or phone to (979) 862-8029
- TAMU related account: helpdesk@tamu.edu via E-mail, or phone to (979) 845-8300

Important!!! Save your work as you go along. Nothing is more discouraging than to lose an assignment due to a computer hang ups! You may want to also make hard copies of your work to have "proof" and save yourself time and trouble!

Plagiarism Virtual Course

Plagiarism is the leading form of academic dishonesty that the School of Public Health has to address. As a SPH student, you are responsible for knowing what plagiarism is and how to avoid it. All SPH students are automatically enrolled in Plagiarism Virtual Course on eCampus. This virtual course provides you with information and examples related to plagiarism in an effort to reduce the number of reported incidents. Please find a tutorial and resources under "Content." In addition, please find Turnitin, a software package that allows you to check whether you may have plagiarized your document. Please see Phuong Huynh: phuong@sph.tamhsc.edu for additional information.

Course Evaluation

Constructive feedback from students on course evaluations is taken very seriously at the School of Public Health. I am asking for your assistance in helping the School in its assessment of courses and faculty through your participation in the evaluation of your courses. As public health professionals you will one day have the responsibility to evaluate colleagues and health initiatives. The School views providing feedback on the School's courses as part of your professional responsibility.

SPH Mission

The Texas A&M School of Public Health is committed to transforming health through interdisciplinary inquiry, innovative solutions, and development of leaders through the Aggie tradition of service to engage diverse communities worldwide.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>.

Academic Integrity

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Students are expected to adhere to all TAMUS, TAMU, HSC, and School policies regarding academic integrity and classroom conduct. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used, or tampering with the academic work of another student. Individuals found guilty of academic dishonesty may be dismissed from the degree program, and at a minimum will receive an F for the course. It is the student's responsibility to have a clear understanding of how to reference other individuals' work, as well as having a clear understanding in general as to the various aspects of academic dishonesty. A tutorial on this issue is available at: <http://SPH.tamhsc.edu/academic-affairs/academic-integrity.html>. A plagiarism tutorial can be found in Blackboard. Information on the Aggie Honor Code can be found at <http://aggiehonor.tamu.edu>.

Remember: "An Aggie does not lie, cheat, or steal, or tolerate those who do."

Copyright Statement

The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted by the instructor.

FERPA

The Federal Education Rights & Privacy Act requires that we advise students that by registering for this course, their HSC assigned e-mail address will be revealed to classmates and the instructor. By continuing your enrollment in the course you acknowledge your understanding of this policy. By enrolling in this course you agree to the following statement: "I understand that as a result of registering for this course, my HSC/Blackboard assigned e-mail address will be revealed to classmates and the instructor."

Equal Opportunity Statement

The Texas A&M Health Science Center is an Equal Opportunity/ Affirmative Action employer. Inquiries regarding nondiscrimination policies may be directed to the Human Resources Officer by phone at (979) 436-9208, email hr@tamhsc.edu, or by mail at 200 Technology Way, College Station, TX 77845.

DISCLAIMER

This syllabus is representative of materials that will be covered in this class; the schedule and topics list are subject to change. These changes will be discussed in class and subsequently communicated via email or posted as announcements. If you have any problems related to this course, please feel free to discuss them with the instructor.

Title IX

Title IX of the Education Amendments of 1972 protects people from sex discrimination in educational programs and activities at institutions that receive federal financial assistance. Texas A&M University and the Texas A&M Health Science Center are committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, the University does not discriminate on the basis of sex in its education programs and activities, and it encourages any student or non-student who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct by another student, member of the faculty or staff, or campus visitor or contractor, to immediately report the incident to any of the individuals persons or offices listed below.

WHERE TO REPORT:

James Nachlinger,
Executive Director, Payroll and HR Services
Title IX Coordinator
979-436-9207
nachlinger@tamhsc.edu

The University encourages students to immediately consult with or report incidents of sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to the TAMHSC Title IX Coordinator. Students may also report incidents of sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to any School of Public Health administrator, university administrator, official or unit supervisor, who is then responsible for promptly notifying any of the above Title IX coordinators of the reported incident.