

**TEXAS A&M UNIVERSITY SCHOOL OF PUBLIC HEALTH
PHPM 631 Health Information Management Systems (Spring 2019)**

COURSE WEBSITE

<http://pinformatics.org/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, 5:45 pm to 8:45 pm

Location: SPH Classroom Building 110; sometimes in 120 (computer lab) for parts of the class

INSTRUCTOR

Hye-Chung Kum, PhD, MSW;

Building A, Rm 124; Office hours: schedule via email (kum at tamu dot edu)

TEACHING ASSISTANT

Theodoros Giannouchos, MSc;

Office hours: schedule via email (tgiannouchos at tamu dot edu)

COURSE LEARNING OBJECTIVES

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

MHA Core Competency	Course Objectives	Assessment
Domain: Health Care Environment and Community Core Competency Area(s): Legal and Ethical Bases for Health Services and Health Systems	Describe the legal and ethical issues of privacy in sensitive health data. Define and explain the different security technology and legal tools available to protect the sensitive data.	Security & Privacy Worksheet and Flyer
Domain: Leadership Skills Core Competency Area(s): Problem Solving, Decision Making, and Critical Thinking	Develop stories using relevant data, the evidence, to support a decision	Data to Decision
Domain: Management Skills Core Competency Area(s): Performance Improvement	Describe the impact of HIT on medical outcomes	Adoption & Use
Domain: Analytic and Technical Skill Core Competency Area(s): Data Analysis and Information Management	Describe common components of an EMR Write SQL queries to answer specific questions about the information in the database	EMR SQL queries

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 the 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 are in class case discussions), substantial work outside the classroom (e.g., readings, submission of assignments almost every week, a class presentation), a midterm 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 & Other Required Readings

Wager, Lee, Glaser. Health Care Information Systems. 4th edition. (2017) John Wiley and Sons.

There will be required readings every week. The details will be posted on the course website.

COURSE STRUCTURE & TOPICS

A three-hour class session will generally be split into three 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.
- 60 minute actively learning: Hands-on in class activities and discussions (you will be asked to hand in the results of your classroom activities)

The following topics will be covered

- Technologies that support health care information systems
- Software requirements, implementation, adoption, and use
- Information security and privacy
- How to think about and use data to address real-world problems and manipulate data to do so. There will be hands-on exposure to coding, databases, SQL, and Tableau.

Tentative schedule (The final detailed schedule of classes is posted on the course website and will be updated as the semester progresses.)

Week	Lecture	Readings & Quiz (For class)
1	Introduction & Tableau	None
2	Health Care Data	Ch 1 & 2; Quiz 1
3	Health Care Information Systems	Ch 3; Quiz 2
4	Population Health Management	Ch 4; Quiz 3
5	System Requirements & Acquisition	Ch 5; Quiz 4
6	IT Management & Implementation	Ch 6 & 8; Quiz 5
7	IT Adoption & Use	Ch 7; Quiz 6

8	Standards & Coding	Ch 10 & 11; Quiz 7
9	Security	Ch 9; Quiz 8
10	Privacy	R1 (see course website); Quiz 9
11	Midterm	
12	SQL I	R2 (see course website); Quiz 10
13	SQL II	Lab 9
14	Wrap up & SQL III	

Use and Sharing of Course Materials

You may not use course materials from prior classes. AND you may not share course materials from this class with future students. This applies to all quizzes, exams, and assignments.

Assessment and Grading Policy

Requirement	Description	Grade
Online Quizzes	Quizzes to be completed via E-Campus approximately weekly in advance of class (approximately on wed).	10%
Exam	A cumulative mid-term exam covering lecture, reading, discussion and assignment topics.	30%
Assignments *	Individual or group assignments.	35%
Final Project	There will be final take-home project on materials covered after the midterm	10%
Class Group Presentation	Everyone will give one group presentation in class	10%
Class participation	Weekly	5%

**Tentative due dates can be found on the schedule below*

Online Quizzes

Students will complete approximately 8 short quizzes throughout the semester. These quizzes are not meant to be “high-stakes” assessments. Instead, these quizzes are meant to help students monitor their ongoing comprehension of the assigned course materials and be prepared for in-class lectures, discussions, and activities. Typically, the quizzes must be completed via E-campus prior to the first class meeting of each week. Tentative quiz due dates are on the schedule below. Quiz openings and exact due dates will be announced via the course website.

- Each quiz will contain up to two parts:
 - Part 1 will be approximately 5-20 multiple choice or true/false questions
 - Part 2 will be 1-2 open-ended question to be discussed in class the following week
- Quiz 1 serves as practice and students will receive full credit by answering all questions.
- Quiz 2 and beyond will be graded for correctness (multiple choice and T/F questions only)
- Students will be given two attempts to complete each quiz.
- Students must complete the quizzes individually and should NOT share any information about the quizzes with their classmates.
- Each student’s lowest quiz grade will be dropped from the final grade calculation.

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 for and receive assistance.** The overall weight of the assignments on the final course grade is **35%**. These include submission of results from in-class activities. **All assignments are due at 11:59pm the day before the class they are due.**

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 have not yet taken the evaluation.

Plagiarism: If you consult any outside sources when doing your work, you are expected 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 doing 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 (Minor modifications may be made as needed with notice)

	Date	Online Quiz	Assignment Given	Assignment Due	Presentations* (Tentative)
1	1/14		Assignment 1		
	1/21	MLK		Assignment 1 Progress Report	
2	1/28	Quiz 1 (practice)	Assignment 2	Assignment 1 Email on Presentation	
3	2/4	Quiz 2	Assignment 3	Assignment 2	
4	2/11	Quiz 3			GUEST LECTURE
5	2/18	Quiz 4	Assignment 4	Assignment 3	Group 1
6	2/25	Quiz 5			Group 2
7	3/4	Quiz 6	Assignment 5	Assignment 4	GUEST LECTURE
	3/11		SPRING BREAK		
8	3/18	Quiz 7	Assignment 6	Assignment 5	GUEST LECTURE
9	3/25	Quiz 8			Group 3
10	4/1		Assignment 7: Review	Assignment 6	Group 4
11	4/8		Midterm	Assignment 7: Review	
12	4/15		Assignment 8		Group 5
13	4/22				Group 6
14	4/29		Final Project	Assignment 8	Group 7
	5/2			Final Project	

* Guest lecture dates are not finalized, so presentation dates might have to be moved back some after scheduling. If this occurs, I will email ahead of time. I will do my best to finalize schedule within 4 weeks.

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>.

Campus (Blackboard)

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). 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).*

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.

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

Texas A&M University is an Equal Opportunity/Affirmative Action/Veterans/Disability Employer committed to diversity. Inquiries regarding nondiscrimination policies may be directed to the Human Resources by phone at (979) 845-4141 or to Texas A&M University Division of Human Resources and Organizational Effectiveness, 750 Agronomy Road, General Services Complex Suite 1201, College Station, TX 77843-1255

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:

Jennifer M. Smith
Title IX Coordinator
750 Agronomy Rd., Suite 2101
College Station, TX
77843-1280
Mail Stop 1280
TitleIX.Coordinator@tamu.edu
979-845-0977

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.