KINE 3351: Public Health Informatics
Department of Kinesiology
Spring 2017

Instructor: Peace Ossom Williamson, MLS, MS, AHIP
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Office: Central Library 202
Office Phone: 817-272-6208
The best way to contact me is by email.

Office Hours: Tues, 10am-12pm or by appointment
Faculty Profile: https://www.uta.edu/profiles/peace-williamson

Time and Place of Class Meetings: Hybrid: Online with the following.
- In-person meetings from 12-1:50pm in the Central Library, room B20: January 20, February 3, March 3, March 31, and April 28
- Online simultaneous meetings on Twitter from 4-5pm (Twitter chats): February 19, March 9, April 30

Required Textbook: Magnuson, J. A., & Fu, P. C. (2014). *Public health informatics and information systems (2nd ed.)*. Available here: http://UTARL.eblib.com/patron/FullRecord.aspx?p=1592847 will be used as the primary reference text with selected readings to be assigned as needed.

*No purchases necessary. Readings will come from resources available through the library or open educational resources.

Description: KINE 3351-002 Public Health Informatics will address the application of ethical principles that apply to the use of information technology as those pertain to accessing, collecting, analyzing, using, maintaining, and disseminating data and information.

Student Learning Outcomes

Upon completion of this course, students will be expected to evaluate the purpose and quality of information systems to determine their applicability in health scenarios. With this aim, each student will be able to

- Identify and describe key public health information systems and how these systems are used to improve population health.
- Locate and describe current U.S. public health surveillance & environmental monitoring systems.
- Describe privacy, confidentiality, and information security issues encountered in implementation of public health information systems.
- Apply health behavior theory and public health systems in development of online applications.

Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police at 817-272-3003. You may also dial 911. The non-emergency number is 817-272-3381.

Grading*

			Scale:	
Behavior Change App Report	130		895-1000	A
Participation	300		795-894.9	B
Website	570		695-794.9	C
	_____		595-694.9	D
	1000		<594.9	F

*Subject to change. Students will be formally notified of any grading policy changes during the semester.

Students are expected to keep track of performance throughout the semester and seek guidance from me or the following sources if your performance drops below satisfactory levels; see "Student Support Services," below.

Major Assignments

Participation: Because the course is online, participation will be assessed through the following:

- Knowledge Development Assessments (2) – A short pretest and posttest will be provided for completion grade to determine how familiar you are with the topic and to see how you developed in your knowledge over the semester.
- Twitter Chats (4) – We will spend an hour chatting about what you learned that month from the readings, viewings, and sessions. Please add these to your schedules now; so that you can be sure to attend.
- In Person Sessions (5) – As part of the hybrid course, we will meet five times in person this semester.
- Reading Quizzes (weekly) – Each module will have a short quiz over the reading.
- Reflections (2) – There will be two reflection papers. These are to cover what questions you have so far, what you have learned, and what you would like to learn about or learn more about.

Behavior Change App Report – Write a three-page report about your experience using 2 behavior change or monitoring apps/devices for a week.

Website: You will create a website, integrating a literature review, and community health profile, each of which will be developed throughout the class. These will be graded separately as assigned. The preliminary website will then be graded, and then the final website will be graded at the end of the semester.

Attendance: Students are expected to participate in online discussions and Twitter chats, and attendance is mandatory at 4 in-person training sessions in the library. **Since there are only four in-person sessions, there are zero allowed unexcused absences.**

Punctuality: If you are not here at the start of class you will be considered absent.

Attention during class: If I see you surfing the web, checking email, working on an assignment for another class, or otherwise distracted from the class, I will ask you to leave.

Excused absence: Contact me at least a week before the absence. You are responsible for learning about and completing missed assignments. All make-up work is due within a week after an absence. An excused absence involves verifiable illness, a death or severe illness in the family, or participation in an official university-sponsored/affiliated event. Your grade will not be affected for an excused absence.

Expectations for Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 8 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc. You will often be working on several projects and/or assignments at the same time plus keeping up with readings, videos, etc. Time management will be important and mastering the requirements will greatly prepare you for a job in the industry. If you are struggling with the material or the workload, I expect you to come see me during office hours to discuss it. Please email in advance so that I can schedule a block of uninterrupted time with you. You are responsible for the work but I am responsible for helping you, guiding you and making sure you are not overwhelmed.

Plagiarism: If you plagiarize, you will receive a zero on the assignment with no opportunity for a make-up. Depending on the severity of the case, you may fail the class.

- If you are not sure if something rises to the level of plagiarism, ask me or refer to plagiarism guidelines at http://cronkite.asu.edu/about/plagiarism.
- To test for plagiarism, use TurnItIn in Blackboard. Highlighted text outside of common phrases, quotation marks, and reference pages may be plagiarized content. If you are unsure, please check with me or work with the Writing Center http://www.uta.edu/owl.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students including tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For a referral, visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, or send a message to resources@uta.edu. More info: http://www.uta.edu/universitycollege/resources/index.php.

The I.D.E.A.S. Center (2nd Floor of Central Library) offers **free** tutoring to all students. To schedule an appointment with a peer tutor or mentor email IDEAS@uta.edu or call (817) 272-6593.

Library Information: You can access the library at library.uta.edu. Contact me or Kaeli Vandertulip, kaeli.vandertulip@uta.edu with questions about library resources and APA. Some resources:

- Librarians' contact information: library.uta.edu/subject-librarians
- Informatics Course Guide - libguides.uta.edu/kine3351
- Questions? Visit ask.uta.edu
- APA Guide – libguides.uta.edu/apa
- Public Health Guide – libguides.uta.edu/publichealth
- Library Tutorials – library.uta.edu/how-to
- Connecting from Off-Campus – libguides.uta.edu/offcampus

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this

account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Grade Grievances: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog: http://catalog.uta.edu/academicregulations/grades/#undergraduatetext

Disability Accommodations: UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA),* and *Section 504 of the Rehabilitation Act.* All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD).** Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Non-Discrimination Policy: The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit www.uta.edu/eos.

Title IX Policy: The University of Texas at Arlington is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

> *I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*
>
> *I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in suspension or expulsion from the University.

Campus Carry: Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit http://www.uta.edu/news/info/campus-carry/

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, exit the room and move toward the nearest exit, which is located out the front of the library. When exiting the building during an emergency, do not take an elevator but use the stairwells. Campus staff will assist you in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Evacuation plans may be found at http://www.uta.edu/campus-ops/ehs/fire/Evac_Maps_Buildings.php.

Subscribe to the MavAlert system that will send information in case of an emergency to their cell phones or email accounts. Anyone can subscribe at https://mavalert.uta.edu/ or https://mavalert.uta.edu/register.php.

Course Schedule

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. – Ms. Peace

Module	Topics	Assignments
1 – Jan 17-23	**Course Overview** • Introductions • Class expectations • About the textbook **Public Health Informatics Overview** • About PHI and why it's important • Main PHI goals	**Readings/Viewings:** See Blackboard **In Class Activity:** Jan 20: Intro to class, complete Knowledge Development Assessment **Activities:** Due Jan 23: Module quiz & plagiarism tutorial Due Jan 23: Create/share Twitter handle & Tweet class hashtag with a description of yourself Due Jan 23: Find a partner and choose a topic
2 – Jan 24-30	**Evidence Based Practice & Informed Decision-Making**	**Readings/Viewings:** See Blackboard **Activities:** Due Jan 30: Module quiz Due Jan 30: Submit website link of your published site with a few test elements
3 – Jan 31-Feb 6	**Finding and Evaluating Health Information I** **Databases and Information Resources** • Literature databases • Databases for best-practice resources	**Readings/Viewings:** See Blackboard **In Class Activity:** Feb 3: Learn about finding data and information, literature reviews **Activities:** Due Feb 6: Module quiz Begin working on the literature review. (Due Feb 20)
4 – Feb 7-13	**Public Health Systems in the US** • How has technology been used to enhance public health activities? • Roles in PHI: computer scientists, epidemiologists, policy-makers and programmers in information system development.	**Readings/Viewings:** See Blackboard **Activity:** Due Feb 13: Module quiz Due Feb 13: Test color-blindness and reading level usability of website **Extra Credit: Add an RSS feed to your website (5 pts)**
5 – Feb 14-20	**Finding and Evaluating Health Information II** **Web resources** • Toolkits	**Readings/Viewings:** See Blackboard **Twitter chat**, Feb 19 at 4pm – Evidence-based practice and public health information systems **Activities:**

	• Policies & Legislation	Due Feb 20: Module quiz Due Feb 20: Complete preliminary literature review on website
6 – Feb 21-27	**User Centered Design** • What is user-centered design? • What is usability testing and how can it improve online tools? • How does readability affect usage of online tools and how can we improve readability?	**Readings/Viewings**: See Blackboard **Activity:** Due Feb 27: Module quiz Due Feb 27: Identify characteristics of a tailoring strategy and implement them in your website.
7 – Feb 28-Mar 6	**Consumer Health Informatics** • Behavior change theory • Mobile & web applications of behavior change theories • Operationalized health interventions using IT **Online Data Collection** • Basics, strengths & limitations • Tools	**Readings/Viewings:** See Blackboard **In Class Activity:** Mar 3: Hear about and preparing data and creating visualizations **Activities:** Due Mar 6: Module quiz Due Mar 6: Use a health behavior change or behavior monitoring app for a week in preparation for the Twitter chat.
8 – Mar 7-10 (short module)	**Data Analysis and Visualization** • Integrating data sources • Basic data analysis methods • Data visualization tools & best practices	**Readings/Viewings:** See Blackboard **Twitter chat**, Mar 9 at 4pm – How can behavior change theories and user-centered design inform decision-making in target groups? How was that evident—or not—in the app you used? **Activities:** Due Mar 10: Module quiz Due Mar 10: Tailoring and Testing Report Due Mar 10: Reflection 1
Spring Break – Mar 11-19		
9 – Mar 20-27	**eHealth** • EHR/EMR/PHR • TeleHealth/Telemedicine	**Readings/Viewings:** See Blackboard **Activities:** Due Mar 27: Module quiz Due Mar 27 – Preliminary Website Review
10 – Mar 28-Apr 3	**Creating Visualizations Using Various Data Sources**	**Readings/Viewings:** See Blackboard **In Class Activity:** Mar 31 – Information literacy **Activities:** Due Apr 3: Module quiz Due Apr 3: Complete Community Health Profiles

11 – Apr 4-10	**Biometrics and Health Monitoring Tools** • About health status indicators • Biometric communication devices & monitoring tools for practitioners **Personal Health and Productivity Applications** • Consumer products and applications for health monitoring • Individual genetic testing • Quantified self movement	**Readings/Viewings:** See Blackboard **Activities:** Due Apr 10: Module quiz Due Apr 10: App Report
12 – Apr 11-17	**New technologies and public health informatics** • Social media, blogging/vlogging: online communities • Facilitating collective action: gamification and crowdsourcing • Citizen journalism and citizen science • Social media campaigns and data scraping **The future of public health informatics** • How are changes in technology going to affect the practice of public health and the training of public health practitioners?	**Readings/Viewings:** See Blackboard **Activities:** Due Apr 17: Module quiz Due Apr 17: Test usability of website
13 – Apr 18-24	**Environmental Surveillance** • Information technology and surveillance systems in public health? • What databases and technologies can be used to improve public health surveillance?	**Readings/Viewings:** See Blackboard **Activities:** Due Apr 24: Module quiz Due Apr 24: Reflection 2
14 – Apr 25-May 5 (short module)	**Public health informatics outside the US** • Interventions in developing countries	**Readings/Viewings:** See Blackboard4 **In Class Activity:** Apr 28: Scraping data, social media, complete knowledge development assessment **Activities:** **Twitter chat**, Apr 30 at 4pm – How can surveillance systems and online environments inform decision-making for public health professionals? Due May 5: Module quiz
15 – May 6-10	Finals Week	Due May 8: Completed Website