HEAD 5314-110, 11616, Health Informatics and Data Analytics (formerly Health Informatics and Trends)

Spring 2022
Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

This course runs from January 17 through March 10, 2023.

This is a 100% online course that uses the A&M-Central Texas Canvas Learning Management System [https://tamuct.instructure.com/].

INSTRUCTOR AND CONTACT INFORMATION

Instructor Thomas Wilhite MBA-HM, BSN, RN
Office: NA (no on-campus presence)
Phone: 254-519-5437
Email: *twilhite@tamuct.edu*
Office Hours

By appointment only. Meetings to be conducted virtually using either zoom, Microsoft teams, or phone call. Student will be provided option of preference. Appointment meetings will be sent via email invite.

Student-instructor interaction

Student-Instructor interaction will be based upon need and or request. Interaction will occur telephonically or via teleconference.

Email will be checked regularly with responsiveness geared toward evening hours and weekends.

Emergency Warning System for Texas A&M University-Central Texas
SAFEZONE. SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the SafeZone website [www.safezoneapp.com].

To register SafeZone on your phone, please follow these 3 easy steps*:*

1. Download the SafeZone App from your phone store using the link below:
   - iPhone/iPad: [https://apps.apple.com/app/safezone/id533054756]
   - Android Phone / Tablet
     [https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp]
2. Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
3. Complete your profile and accept the terms of service

COURSE INFORMATION

Course Overview and description

HEAD 5314
This course provides an overview of the use of information technology and data analytics as they apply to healthcare, including the role of informatics within healthcare, technology environment, systems life cycle design, privacy and security, change management, and data analytics. The course will provide the student with the fundamental knowledge necessary to practice as a leader within the modern healthcare environment and communicate with information technology (IT) personnel.

Student Learning Outcomes

HEAD 5314:
After completing this course, learners should be able to:

1. Demonstrate a knowledge of Electronic Healthcare Records.
2. Explain the basic form and function of a technology infrastructure within the healthcare environment.
3. Demonstrate knowledge of system design life cycle
4. Demonstrate knowledge of privacy and security measures for healthcare data.
5. Demonstrate an ability to lead effectively, promoting change adaptation and establishing professional presence.
6. Demonstrate a knowledge of data analytics and demonstrate competence by manipulating raw data within excel to present in graphical format.

Required Reading and Textbook(s)

Required readings will be derived from Nelson, R., & Staggers, N. (2016). *Health informatics - e-book : An interprofessional approach*. Elsevier.

Additional resources will be referenced from multiple professional and or governmental resources such as HealthIT.gov, CMS.gov, HHS.gov, ncbi.nlm.nih.gov, and HIMSS.org

COURSE REQUIREMENTS

Course Requirements:

Competency regarding the following objectives will be demonstrated by successfully completing assignments.

1. Develop foundational understanding of Electronic Healthcare Record.
   a. Student will demonstrate competence by describing essential components of EHR.
   b. Student will discuss the barriers of EHRs.
2. *Explain the basic form and function of a technology infrastructure.*
   a. *Student will demonstrate competence regarding health information exchange.*
   b. *Student will demonstrate knowledge of various aspects within technology infrastructure and identify associated terms*
3. Demonstrate understanding of systems design life cycle.
4. Demonstrate understanding the importance of security and privacy as it pertains to healthcare data.
5. Demonstrate the understanding of the importance of leadership and management within healthcare informatics
   a. Student will discuss the impact that change management serves specific to IT and healthcare operational workflows
6. Demonstrate understating of Data Analytics.
   a. Student will be able to differentiate the different types of data analysis.
   b. Student will demonstrate competence manipulating data within Microsoft Excel.
7. At the conclusion of the course, student will submit a professional presentation providing recommendations how a health system would navigate assigned challenge.

Grading Criteria Rubric and Conversion

Students earn their course grades by completing the items below; no extra credit assignments are given. To pass this course satisfactorily, students must complete each of the graded items listed below.

Category of Competence	Percentage	Points
General Discussion	15	70
Quizes	41	193
Data Manipulation	22	100
Final Presentation	22	100
Total	100	463

The overall Final Course grade will follow the grading table as shown below.

Category of Competence	Letter Grade	Numerical Grade Value
Excellent (student demonstrated vast understanding of content)	A	89.5 and above
Competency Demonstrated	B	79.5 – 89.4
Nearing competency	C	69.5 – 79.4
Competency not demonstrated	F	69.4 and below, failing

- ❖ There are no "Curving" of grades
- ❖ No Extra Credit will be granted.

Your instructor reserves the right to make modifications to the course activities to better achieve course outcomes. If any changes are needed, you will be given plenty of advance notice, and no changes will be made that result in grade reductions.

Posting of Grades

For all assignments submitted, students can expect grades to be posted no later than Sunday of school week. Any delays of grades being posted will be communicated via Canvas.

Grading Policies

Extensions will only be granted in the event of a documented emergency.

COURSE OUTLINE AND CALENDAR

Complete Course Calendar

The official course schedule will be posted and maintained on the course Canvas page.

Important University Dates

Please click this link to view the University Academic Calendar:
https://www.tamuct.edu/registrar/academic-calendar.html

TECHNOLOGY REQUIREMENTS AND SUPPORT

Computing proficiency is required for this course. Student must be versed on utilizing web cams, Zoom or Microsoft Teams, Canvas, Microsoft Word, and Microsoft Excel. Student must be able to play videos on their device as some sections will require watching videos. In order to communicate with instructor, please ensure you email is accessible and your technology device

has camera and microphone. The final will require student to record themselves giving a presentation and uploading to Canvas.

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. **We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.**

Logon to A&M-Central Texas Canvas [https://tamuct.instructure.com/] or access Canvas through the TAMUCT Online link in myCT [https://tamuct.onecampus.com/]. You will log in through our Microsoft portal.

　　　Username: Your MyCT email address. Password: Your MyCT password

Canvas Support

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select "Chat with Canvas Support," submit a support request through "Report a Problem," or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

Online Proctored Testing

There is no online proctored testing for this course.

Other Technology Support

For log-in problems, students should contact Help Desk Central, 24 hours a day, 7 days a week

　　　Email: helpdesk@tamu.edu
　　　Phone: (254) 519-5466
　　　Web Chat: [http://hdc.tamu.edu]
　　　Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Drop Policy

If you discover that you need to drop this class, you must complete the Drop Request Dynamic Form through Warrior Web.

[https://dynamicforms.ngwebsolutions.com/casAuthentication.ashx?InstID=eaed95b9-f2be-45f3-a37d-46928168bc10&targetUrl=https%3A%2F%2Fdynamicforms.ngwebsolutions.com%2FSubmit%2FForm%2FStart%2F53b8369e-0502-4f36-be43-f02a4202f612].

Faculty cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the Academic Calendar for which the form must be completed.

Once you submit the completed form to the Registrar's Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Office of Student Conduct. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more information regarding the Student Conduct process, [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may submit a report, [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Warrior Center for Student Success, Equity and Inclusion is responsible for ensuring that students with a disability receive equal access to the university's programs, services and activities. If you believe you have a disability requiring reasonable accommodations, please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information, please visit our Access & Inclusion Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Important information for Pregnant and/or Parenting Students

Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related guidance from US Department of Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit Student Affairs [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these requirements and guidelines online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex

and gender–including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Associate Dean in the Division of Student Affairs at (254) 501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.

Tutoring

Tutoring is available to all A&M-Central Texas students, both virtually and in-person. Student success coaching is available online upon request.

If you have a question, are interested in becoming a tutor, or in need of success coaching contact the Warrior Center for Student Success, Equity and Inclusion at (254) 501-5836, visit the Warrior Center at 212 Warrior Hall, or by emailing WarriorCenter@tamuct.edu.

To schedule tutoring sessions and view tutor availability, please visit Tutor Matching Services [https://tutormatchingservice.com/TAMUCT] or visit the Tutoring Center in 111 Warrior Hall.

Chat live with a remote tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas except writing support. Access Tutor.com through Canvas.

University Writing Center

University Writing Center: Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University–Central Texas (A&M–Central Texas) is a free service open to all A&M–Central Texas students. For the Spring 2022 semester, the hours of operation are from 10:00 a.m.-5:00 p.m. Monday thru Thursday in Warrior Hall 416 (with online tutoring available every hour as well) with satellite hours available online only Monday thru Thursday from 6:00-9:00 p.m. and Saturday 12:00-3:00 p.m.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via WCOnline [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the

UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor by making an appointment via WCOnline [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

University Library

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 400,000 eBooks and 82,000 journals, in addition to the 96,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place virtually through WebEx, Microsoft Teams or in-person at the library. Schedule an appointment here [https://tamuct.libcal.com/appointments/?g=6956]. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our Library website [http://tamuct.libguides.com/index].

OPTIONAL POLICY STATEMENTS

A Note about Sexual Violence at A&M-Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Wellness and Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the Title IX webpage

[https://www.tamuct.edu/compliance/titleix.html].

Behavioral Intervention

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the referral online [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the Behavioral Intervention Team website for more information [https://www.tamuct.edu/bit]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.

OTHER POLICIES

> *If you have concerns about copyright protection of your syllabus or course materials, consider adding the following notice*

Copyright Notice

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

> Copyright. (*YEAR*) by (*FACULTY NAME*) at Texas A&M University-Central Texas, (*FACULTY COLLEGE*); 1001 Leadership Place, Killeen, TX 76549; 254-(*FACULTY COLLEGE PHONE*); Fax 254-(*FACULTY COLLEGE FAX*); (*FACULTY EMAIL*)