



**HITT – 1255/1355 – 001IN**  
**Healthcare Statistics**  
**(Spring 2022)**  
**Internet**

**Instructor Information:** Kay Frieze, MHA, RHIA, kfrieze@com.edu, 409-933-8414(office) 409-789-5113(cell)

**Student hours and location:** Monday 1 to 3; Tuesday 9 to 11; Wednesdays 1 to 3; Thursday 9 to 12 & Friday by appointment.  
STEAM building, S-225.45

**Required Textbook/Materials:**

Calculating and Reporting Healthcare Statistics, 6th edition – Author; Susan White, PhD, RHIA, CHDA; AHIMA; ISBN# 978-1-58426-683-9; AHIMA # -AB120718

Health Information Management Case Studies, 1st or 2nd edition; Author Dianna Foley;

**If you have the 1st edition do not purchase the 2nd edition.**

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Course Description:** Principles of healthcare statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data.

**Course requirements:** Course Pre-requisite MATH – 1342 Elementary Statistics

**Determination of Course Grade/Detailed Grading Formula:**

**Chapter Reviews (25% of final grade)**

Chapter Reviews consist of matching, multiple choice questions as well as calculation problems. The number of questions varies from chapter to chapter. **Chapter 11 quiz and Chapter 11 exercises address the following Core Objective: Visual Communication.**

**Midterm (30% of final grade)**

The midterm consists of multiple choice and calculation problems pertaining to chapters 1-7.

**Final (30% of final grade)**

The final consists of multiple choice and calculation problems pertaining to chapters 1 -13. Each question or calculation is worth 1 point. **Final address the following Core Objective: Empirical and Quantitative Skills and critical thinking skills**

**Attendance/class participation/discussions (15% of final grade)**

Students are expected to login at least 3 times a week and participate in the discussions/Case Studies and EHRgo on blackboard.

**Detailed Grading Formula:**

Quizzes	25%
Mid-Term	30%
Final	30%
Attendance/Participation	15%

Your semester grade will be comprised of the following components and graded per the following grading scale: Furthermore, **in order to pass this class, you must obtain “C” 75 or better.**

**Grading Scale:**

90-100	A
80-89	B
75 – 79	C
65 – 74.99	D
64 – Below	F

***Notice to Students Regarding Licensing***

*Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. The following website provides links to information about the licensing process and requirements ([www.ahima.org](http://www.ahima.org)). Should you wish to request a review of the impact of criminal history on your potential (RHIT) prior to or during your quest for a degree, you can visit this link and request a “criminal history evaluation”:* ([www.ahima.org](http://www.ahima.org))

*This information is being provided to all persons who apply or enroll in the program, with notice of the requirements as described above regardless of whether the person has been convicted of a criminal offense. Additionally, HB 1508 authorizes licensing agencies to require reimbursements when a student fails to receive the required notice.*

## **Late Work, Make-Up, and Extra-Credit Policy:**

### **Make-Up Policy:**

As a student you are required to complete all lessons, assignments and test as part of each course within the program. **Work submitted after deadline is not accepted.** A zero will be placed in the grade book for late assignments unless specific arrangements have been made. The percentage of each activity will weight in the final grade, regardless of if the student participates in the activity or test.

**Attendance Policy:** Students are expected to attend every class and be on time. Students that are more than 20 minutes late may be counted absent at the discretion of the instructor. If an absence occurs, the student must contact the instructor immediately to discuss the rationale for the absence. Makeup work is the responsibility of the student and making contact with fellow classmates is highly encouraged to get details on missed assignments. Leaving the class early (before being released by the instructor) may result in an absence. Furthermore, attendance will be checked daily by the instructor.

Please Note: You are responsible for getting any missed notes, handouts, assignments, etc. pertaining to the completion of this class. If you are absent for any reason do not ask me for any paperwork that has been previously handed out or written on the board. **IT IS YOUR RESPONSIBILITY.**

**Communicating with your instructor:** ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via Blackboard or other LMS)

## **Student Learner Outcomes:**

Upon successful completion of this course, students will:

1. Prepare statistical reports to support healthcare information and department operations and services.
2. Formulate statistics that meet medical and administrative reporting needs and requirements of government regulatory and voluntary agencies.
3. Analyze health care statistics, vital statistics, descriptive statistics, data validity, and reliability.
4. Assess methods of collecting healthcare data.
5. Utilize appropriate methods of data display.

**Core Objectives:** Students successfully completing this course will demonstrate competency in the following:

1. Critical Thinking: Students will demonstrate creative thinking, innovation, and the ability to analyze, evaluate, and synthesize information.
2. Communication Skills: Develop, interpret, and express ideas through written, oral, and visual communication
3. Empirical Quantitative Data: Students will include the manipulation and analysis of numerical data or observable facts resulting in informed conclusion

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Students will be able to prepare statistical reports to support healthcare information and department operations and services. AHIMA Competency: III.3 Calculate statistics for healthcare operations (3)	Empirical and Quantitative Skills  Critical Thinking	Final
2. Students will be able to demonstrate knowledge of analyzing healthcare statistics, vital statistics, descriptive statistics, data validity, and reliability	Critical Thinking	Final
3. Students will be able to demonstrate knowledge of assessing methods of collecting healthcare data. AHIMA Competency III.5 Describe research methodologies used in healthcare (2)	Critical Thinking	Discussion Chapter 12
4. Students will be able to demonstrate knowledge of utilizing appropriate methods of display. AHIMA Competency: 111.4 Report health care data through graphical representations (3)	Communication Skills; Visual	Chapter 11 quiz and exercises

**Academic Dishonesty:** Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook (pg. 19). Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the

student will be referred to the Office of Student Conduct for the appropriate discipline action. <https://www.com.edu/student-services/student-handbook>.

**Plagiarism:** Plagiarism is using someone else’s words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else’s words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else’s words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action. <https://www.com.edu/student-services/student-handbook>.

**Student Concerns:** If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact the Dean of Workforce and Continuing Education, Dr. Carla Boone, at 409-933-8616/cboone@com.edu

**Course outline:**

<b>Course outline – Tentative Date</b>	<b>Class #</b>	<b>Topics/Chapters Covered</b>	<b>Assigned Reading</b>	<b>Homework</b>	<b>Activities You will post your activities in Blackboard</b>
1/18 – 1/23	1	No Class on 1/18 MLK Day. Class will begin on the 19 <sup>th</sup> . Welcome, Review Syllabus and Lecture over Chapter 1	Chapter 1 Introduction to Health Statistics  Define Stats  Need to Study Stats  Differentiate between descriptive and inferential stats  Stats in healthcare originate  Users of healthcare statistics	Chapter 1 Matching and Review <b>Due 1/23</b> . Located under the learning Module.	Welcome Discussion <b>due 1/20</b>
1/24 – 1/30	2	Chapter 2	Chapter 2 Mathematics Review  Explain fractions, quotient, decimal, ration, proportion, rate and percentage  Difference between numerator and denominator  How to round whole numbers and decimals	Chapter 2 Matching & Review <b>Due 1/30</b> . Located under the learning Module.	Discussion 2: Compare and contrast descriptive and inferential statistics Due 1/27

			How to average a group of numbers		
1/31 – 2/6	3	Lecture over Chapter 3	<p>Chapter 3 Patient Census Data</p> <p>Define, differentiate and apply the terms inpatient census, daily inpt. Census, inpt service day, total inpt service days and admissions and discharge (A&amp;D)</p> <p>Differentiate between an interhospital (interfacility) transfer and an intrahospital transfer</p> <p>Compute daily census and inpt service days using the admission and discharge data provided</p>	Chapter 3 Matching & Review <b>Due 2/6</b> . Located under the learning Module.	<p>Discussion 3 Locate Texas’s department of health on the Internet and see what types of statistics are available. How can you use the information as a consumer and as a provider of health care. On Blackboard, please post your initial post by Thursday 2/3 and at least one response to a classmate by Saturday 2/5.</p>
2/7 – 2/13	4	Lecture over Chapter 4 Lecture over Chapter 5	<p>Chapter 4 Percentage of Occupancy</p> <p>Define and differentiate among the terms inpatient bed count, bed complement, total bed count days, newborn bassinet count, bed count days, newborn count days</p> <p>Identify the beds that are included in a bed count</p> <p>Compute the bed occupancy percentage for any period given the data representing bed count and inpt service days (adult and children)</p> <p>Compute bassinet occupancy percentage</p> <p>Compute the percentage of occupancy for a period when there has been a change in the</p>	Chapter Matching & Review 4 & 5 <b>Due 2/13</b> Located under the learning Module.	<p>Discussion Chapter 4 - Conduct an internet search for reasons why some facilities would use the bed turnover rate rather than the percentage of occupancy. On Blackboard, please post your initial post by Thursday 2/10 and at least one response to a classmate by Saturday 2/13.</p> <p>Review information at <a href="http://www.ahcpr.gov/data/hcup/">www.ahcpr.gov/data/hcup/</a> for information about LOS. Type “hospital LOS” in their search</p>

			<p>number of beds during that period</p> <p>Calculate the bed turnover rate Chapter 5</p> <p>Length of stay (LOS)</p> <p>Define LOS and discharge days</p> <p>Compute LOS for one pt. based on data provided Compute total LOS for a group Compute average LOS using the formulas provided Compute the average LOS for newborns Describe a leave of absence day and identify when it is used in calculations</p>		<p>field. Read one of the articles. On Blackboard, please post a summary of the article by Thursday 2/10 and at least one response to a classmate</p>
2/14 – 2/20	5	Lecture over Chapter 6	<p>Chapter 6 Death (Mortality) Rates</p> <p>Define and calculate the death rates: gross, net, postoperative, anesthesia, maternal, newborn and fetal</p> <p>Calculate the case fatality rate</p> <p>Differentiate between operation and procedure</p> <p>Define Cancer mortality rates</p>	Chapter 6 Matching & Review <b>Due 2/20</b> . Located under the learning Module.	
2/21 – 2/27	6	Chapter 7	<p>Chapter 7 Hospital Autopsies and Autopsy Rates</p> <p>Define the terms autopsy, hospital inpt autopsy, hospital autopsy and autopsy rate</p> <p>Define a coroner's case and determine when a coroner's case would be included in a hospital's autopsy rate Compute the following autopsy rates: gross, net, adjusted hospital, newborn and fetal</p>	Chapter 7 Matching & Review <b>Due 2/27</b> . Located under the learning Module.	Brain storm session: Why the autopsy rate is decreasing? On Blackboard, please post your initial post by Thursday 2/24 and at least one response to a classmate by Saturday 2/26.

2/28 – 3/6	7	<b>Review for Mid- Term (Chapters 1-7)</b>			I will hold a Teams meeting to assist anyone with questions or clarification of any formulas. TBA
3/7 – 3/13	8	<b>Mid-term (Chapters 1-7)</b>	<b>Will open on 3/7 and close at midnight on 3/13</b>		Due 3/13
3/14 – 3/20	9	<b>Spring Break</b>			
3/21 – 3/27	10	Lecture over Chapter 8	<p>Chapter 8 Morbidity and Other Miscellaneous Rates</p> <p>Discuss and calculate infection rate</p> <p>Define and calculate the postop infection rate</p> <p>Distinguish between a surgical procedure and a surgical operation</p> <p>When provided with the appropriate data, compute the following rates: C-section, consultation and other rates</p>	Chapter 8 Matching & Review <b>Due 3/27</b> Located in the learning module.	Complete Case Study 3.39 in the 1 <sup>st</sup> Edition book/ 3.29 if you have the 2 <sup>nd</sup> edition book post your answers in the assignment tab by 3/26



3/28 – 4/3	11	Lecture over Chapter 9	<p>Chapter 9 Stats Computed within the HIM Dept.</p> <p>Describe the uses of stats computed within the HIM dept in terms of unit cost, productivity, and staffing levels</p> <p>Recognize how statistics are used in the creation of the HIM dept budget</p> <p>Verify computerized statistical report for accuracy</p> <p>Recalculate statistics for greater specificity Generate computerized statistical reports</p>	Chapter 9 Matching & Review <b>Due 4/3</b> Located in the learning module.	Discussion how HIM dept statistics would be used in management. On Blackboard, please post your initial post by Thursday 4/1 and at least one response to a classmate by Saturday 4/2
4/4 – 4/10	12	Review Chapter 9 Test Lecture over Chapter 10	<p>Review Chapter 9 Test Chapter 10 Descriptive Stats in Healthcare</p> <p>Define descriptive stats</p> <p>Define the terms rank, quartile, decile and percentile</p> <p>Explain how and why percentile are used</p> <p>Compute the percentile from an ungrouped distribution</p> <p>Define and compute the mean, median and mode</p> <p>Define and differentiate among range, variance, and standard deviation</p> <p>Calculate range, variance, and standard deviation</p> <p>Define and compute correlation</p>	Chapter 10 Matching & Review <b>Due 4/10</b> Located in the learning module	Review available statistics at the CDC and Prevention site. There are numerous articles that use descriptive stats. Choose an article and report findings to class through the discussion thread by Thursday 4/7 and respond to another classmate's article by Saturday 4/9.

4/11 – 4/17	13	Lecture over Chapter 11	<p>Chapter 11 Presentation of Data</p> <p>Discuss categorical data: nominal, ordinal, interval and ratio</p> <p>Differentiate between discrete data and continuous data</p> <p>Describe and differentiate between tables and graphs</p> <p>Create tables and graphs to depict statistical info</p> <p>Understand the basic elements in preparing a report</p>	Chapter 11 Matching & Review <b>Due 4/17</b> Located in the learning module	Complete the exercises to apply graphical tools to present data. Exercises 11.3 questions # 3&4; Exercise 11/4. Please post them in the assignment tab <b>Due 4/17</b>
4/18 – 4/24	14	Lecture over Chapter 12	<p>Chapter 12</p> <p>Basic Research Principles Discuss IRB and understand its role in research.</p>	Chapter 12 Matching & Review <b>Due 4/24</b> Located in the Learning module	Complete Case Study 3.11 & 3.13 1 <sup>st</sup> edition/ or if you have the 2 <sup>nd</sup> edition complete 3.8 and 3.10 Post your answers in the assignment tab by 4/24 <b>Due: 4/24 Research the “Tuskegee Study”</b> and please discuss how this relates to the IRB. Post on Discussion Board. <b>Due 4/24.</b>
4/25 – 5/1	15	Lecture over Chapters 13	<p>Chapter 13 Inferential Statistics in Health Care</p> <p>Define Inferential stats</p> <p>Interpret the standard error of the mean and confidence intervals</p> <p>Identify and describe the null hypothesis</p> <p>Understand the importance of r test</p>	Chapter 13 Matching & Review <b>Due 5/1</b> Located in the Learning Module.	Complete case study 3.29 pg. 128 in the 2 <sup>nd</sup> edition or case study 3.39 pg 144 in the 1 <sup>st</sup> edition book. Post your answers in the assignment tab by 5/1. Go to Compare hospitals at <a href="https://www.medicare.gov/hospitalcompare/search.html">https://www.medicare.gov/hospitalcompare/search.html</a> ? Choose 3 hospitals to

			<p>Interpret ANOVA</p> <p>Understand the significance of chi square</p> <p>Read Appendix A: An Introduction to Data Analytics</p>		<p>compare, go to patient experience tab and at the bottom asks would you recommend this hospital. Analyze the information and determine what management could do with this type of information.</p> <p>Write a 1-1/2 report on what you found. On Blackboard, please post your paper by Thursday 4/28 and at least one response to a classmate by Saturday 4/30.</p> <p>Complete EHRgo Data Analytics I, II and III: the following are the links to the assignments. <b>Due 5/1</b></p> <p><a href="https://web21.ehrgo.com/rd/?courseActivityId=13690">https://web21.ehrgo.com/rd/?courseActivityId=13690;</a></p> <p><a href="https://web21.ehrgo.com/rd/?courseActivityId=13692">https://web21.ehrgo.com/rd/?courseActivityId=13692;</a></p> <p><a href="https://web21.ehrgo.com/rd/?courseActivityId=13694">https://web21.ehrgo.com/rd/?courseActivityId=13694.</a></p> <p>Please post your answers in the assignment tab</p>
5/2 – 5/8	16	<b>Review for Final</b>	Final will open 5/4 and will close 5/ 10.		

5/9 – 5/13	17	<b>Final</b>	Final will open 5/4 and will close 5/ 10.		
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## Institutional Policies and Guidelines

**Grade Appeal Process:** Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook. <[https://build.com.edu/uploads/sitecontent/files/student-services/Student\\_Handbook\\_2019-2020v5.pdf](https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf). *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor’s professional judgment of the quality of the student’s work and performance is also not an admissible basis for a grade appeal.* [https://build.com.edu/uploads/sitecontent/files/student-services/Student\\_Handbook\\_2019-2020v5.pdf](https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf)

**Academic Success & Support Services:** College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

**ADA Statement:** Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or [hbankston@com.edu](mailto:hbankston@com.edu). The Office of Services for Students with Disabilities is located in the Student Success Center.

**Counseling Statement:** Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or [hbankston@com.edu](mailto:hbankston@com.edu). Counseling services are available on campus in the student center for free and students can also email [counseling@com.edu](mailto:counseling@com.edu) to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

**Textbook Purchasing Statement:** A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Withdrawal Policy:** Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1<sup>st</sup> 8-week session is March 2. The last date to withdraw from the 16-week session is April 25. The last date to withdraw for the 2<sup>nd</sup> 8-week session is May 4.

**F<sub>N</sub> Grading:** The F<sub>N</sub> grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F<sub>N</sub> grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the F<sub>N</sub> grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F<sub>N</sub> grade.

**Early Alert Program:** The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

**COVID-19 Statement:** All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland’s Coronavirus Information site at [www.com.edu/coronavirus](http://www.com.edu/coronavirus). In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit [com.edu/coronavirus](http://com.edu/coronavirus) for future updates.

**Classroom Conduct Policy:** College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook. <https://www.com.edu/student-services/student-handbook>. Students should act in a professional manner at all times. Disruptive students will be held accountable according to college policy. Any violations of the Code of Conduct will result in a referral to the Office for student Conduct and may result in dismissal from this class.

**Technology Outage Policy:**

In case of ANY technological difficulties with Blackboard (i.e., accessing assignments, content, email, completing an assessment and/or loading assignments, etc.), please contact the Educational Technology Support at <http://com.parature.com>. Fill out a support ticket by clicking on the “Submit a Ticket”. Support staff will be available to assist you Monday – Friday 8AM – 5PM. After 5 PM or on weekends, please call (409) 933-8453 and leave a message with your name, COM ID #, phone number, and state your issue. Someone will get back to you. In addition, please send me a message at

kfrieze@com.edu or call me at 409-933-8414 or 409-789- 5113 as to the issue(s) you reported, the date of the problem, and outcomes.