2/3/2025 DATE
☑ REQUIRED COURSE
☐ ELECTIVE COURSE

BUS DIVISION
☐ NEW COURSE
☑ REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	MCS-091		TITLE: *(30 Characters Max)*	Healthcare Statistics							
SEM CR HRS:	3	Lecture:	3	Lab:	0				ECH:	3	
Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI ☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit			Clinical Practicum:	0	Work-based Learning:	0	WBL ECH:	0		
Course PCS & CIP:	12 - 51.0710		IAI Code	N/A				Contact Hours (Minutes/Week)			
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:		Max:		16 Wks	150	8 Wks	300
Prerequisites:	AHE-055										
Corequisites:	None										
Catalog Description: (40 Word Limit)	This course is a statistics class focused on calculating and reporting healthcare statistics and the common formulas used by hospitals and physician offices.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Introduction to health statistics	4			
Mathematics review	5			
Patient census data	4			
Percentage of occupancy	4			
Length of stay	4			
Death (mortality) rates	4			
Hospital autopsies and autopsy rates	4			
Morbidity and other miscellaneous rates	4			
Statistics computed within the HIM department	4			
Presentation of data	4			
Basic research principles	4			
TOTAL	45	0	0	0

EVALUTION							
QUIZZES	☑	EXAMS	☑	ORAL PRES	☐	PAPERS	☑
LAB WORK	☐	PROJECTS	☑	COMP FINAL	☑	OTHER	☐

COURSE MATERIALS	
TITLE:	Calculating & Reporting Healthcare Statistics
AUTHOR:	Loretta A. Horton, Med, RHIA
PUBLISHER:	AHIMA
VOLUME/EDITION/URL:	3rd Edition
COPYRIGHT DATE:	2010

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Introduction to health statistics	4	1. Define statistics. 2. Discuss why we study healthcare statistics. 3. Classify where statistics in healthcare originate. 4. Identify the users of healthcare statistics.
Mathematics review	5	1. Explain fraction, quotient, decimal, ratio, proportion, rate, and percentage. 2. Describe the difference between numerator and denominator. 3. Describe how to round whole numbers and decimals. 4. Convert fractions to percentages and decimals to percentages. 5. Define and compute the mean, median, and mode. 6. Define and differentiate among range, variance, and standard deviation. 7. Calculate range, variance, and standard deviation.

Patient census data	4	1. Define, differentiate, and apply the terms inpatient census, daily inpatient census, inpatient service day, total inpatient service days, and admission and discharge (A & D). 2. Differentiate between an interhospital (interfacility) transfer and an intrahospital transfer. 3. Compute daily census and inpatient service days using the admission and discharge data provided. 4. Compute census and inpatient service days with data given for births and transfers. 5. Compute the average daily census for a patient care unit given inpatient service days for any such unit.
Percentage of occupancy	4	1. Define and differentiate among the terms inpatient bed count, bed complement, total bed count days, newborn bassinet count, bed count days, and newborn bassinet count days. 2. Identify the beds that are included in a bed count. 3. Compute the bed occupancy percentage for any period given the data representing bed count and inpatient service days (adults and children). 4. Compute the bassinet occupancy percentage for any period given bassinet count and newborn inpatient service days (newborn). 5. Compute the percentage of occupancy for a period when there has been a change in the number of beds during that period. 6. Calculate the bed turnover rate.
Length of stay	4	1. Define the terms length of stay and discharge days. 2. Compute the length of stay for one patient based on data provided. 3. Compute the total length of stay for a group of discharged patients. 4. Compute average length of stay using the formulas provided. 5. Determine the median length of stay for small groups of patients. 6. Describe the conditions under which the median is the preferred measure of central tendency when presenting average length of stay. 7. Compute the average length of stay for newborns using the formula provided. 8. Describe a leave of absence day and identify when it is used in calculations
Death (mortality) rates	4	1. Define and calculate the following death rates: hospital, net, postoperative, anesthesia, maternal, newborn, and fetal. 2. Differentiate between operation and procedure. 3. Define cancer mortality rate.
Hospital autopsies and autopsy rates	4	1. Define the terms autopsy, hospital inpatient autopsy, hospital autopsy, and autopsy rate. 2. Define a coroner's case and determine when a coroner's case would be included in a hospital's autopsy rate. 3. Compute the following autopsy rates: gross, net, adjusted hospital, newborn, and fetal.
Morbidity and other miscellaneous rates	4	1. Discuss and calculate infection rate. 2. Define and calculate the postoperative infection rate. 3. Distinguish between a surgical procedure and a surgical operation. 4. Compute the following rates: C-section, consultation, and other rates if provided with appropriate data.
Statistics computed within the HIM department	4	1. Describe the uses of statistics computed within the HIM department in terms of unit cost, productivity, and staffing levels. 2. Explain how statistics are used in the creation of the health information department budget. 3. Compare computerized statistical reports for accuracy. 4.Compute statistics for greater specificity. 5. Review computerized statistical reports.

Presentation of data	4	1. Discus categorical data: nominal, ordinal, interval, and ratio. 2. Differentiate between discrete data and continuous data. 3. Describe and differentiate between tables and the following graphs: bar graphs, pie charts, line graphs, histograms, frequency polygons, pictograms, and scatter diagrams. 4. Complete tables and graphs to depict statistical information.
Basic research principles	4	1. Explain the different types of research. 2. Describe the difference between quantitative and qualitative research. 3. Differentiate among research designs: exploratory, historical, descriptive, causal, correlational, evaluation, and experimental. 4. Describe the steps in the research process. 5. Explain exploratory and conclusive research design methods. 6. Describe the various data collection techniques. 7. Differentiate among the following types of samples: probability and nonprobability, simple random, stratified, cluster, judgment, quota, and convenience. 8. Define hypothesis. 9. Define reliability and validity. 10. Differentiate between primary and secondary research.
	45	

Outcomes*	At the successful completion of this course, students will be able to:
Course Outcome	Explain and employ fractions, quotients, decimals, ratios, proportions, rates, and percentages
Course Outcome	Define, differentiate, and apply the terms inpatient census, daily inpatient census, inpatient service day, total inpatient service days, and admission and discharge (A & D)
Course Outcome	Compute the length of stay for one patient based on data provided
Primary Laker Learning Competency	Quantitative Literacy: Students analyze data and mathematical patterns in real-life situations.
Secondary Laker Learning Competency	Information & Technology Literacy: Students evaluate information effectively using the appropriate technological tools.

**Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.*