Southwest Mississippi Community College

Health Information Technology

Course Syllabus --- Health Statistics--- Fall 2017

Course Code and Name: HIT 2133 Z Health Statistics (Online)

Department: HIT

Instructor: Melissa Findley Cotten, RHIA, CCS, CAHIMS **Email:** mcotten@smcc.edu
Office: 601-276-3882

Educational Goal/Course Description: This course includes sources and use of health data, definitions of statistical terms, and computation of commonly used rates and percentages used by health care facilities. (3 sch: 3 hr. lecture)

Prerequisites: Alternate Care Systems (HIT 2123)

Textbook: **Basic Allied Health Statistics and Analysis, 4th Edition**
Gerda Koch, MA, RHIA
Cengage
ISBN: 9781133602705

Tentative Weekly Class Activities

HIT 2133 – Health Statistics – COURSE SCHEDULE – Fall 2017
This schedule will be adjusted, prn

WEEK/ DATE	LECTURE TOPIC/ OBJECTIVES	REQUIRED READING	LAB/WEEKLY ASSIGNMENT
1	Statistical Terminology and Health Care Data • Define statistics and data • Describe the role of the HIM professional in healthcare data collection • Identify requesters of healthcare data • Identify users and uses of healthcare data • Identify the major sources of healthcare data • Define: demography, demographic variables, vital statistics • Identify abbreviations used in healthcare statistics • Distinguish clearly between: primary and secondary data, population and sample, variable and constant, qualitative and quantitative data, ungrouped and grouped data, descriptive and inferential statistics, nominal and ordinal data, discrete and continuous data, morbidity and mortality, cross-section and time-series data, and representative and random samples.	Koch: Chapter 1	• MindTap Assignments and Quiz.
2	Frequency Distributions & Tables • Distinguish between: ungrouped and grouped distributions, frequency and cumulative frequency, class limits, boundaries, and width, relative frequency and percentage frequency. • Construct a frequency distribution • Determine the following: Range, number of classes, class limits, boundaries, and	Koch: Chapter 2	• MindTap Assignments and Quiz

WEEK/ DATE	LECTURE TOPIC/ OBJECTIVES	REQUIRED READING	LAB/WEEKLY ASSIGNMENT
	width, frequency, cumulative frequency, and relative frequency • Distinguish between a percentile rank and a percentile score • Compare the advantages and weakness of percentiles • Determine the score from a frequency distribution for any given percentile • Determine the percentile rank for a given score • Create tables		
3	Healthcare Overview & Patient Data • Define: Ancillary service/care, primary care center, incident report, respite care, encounter, occasion of service, visit, abstract, index, register, registry. • Identify the following abbrevations: SNF, ICF, MCO • Distinguish between: inpatient and outpatient care, acute care and long-term care, bed and bassinet statistics, intrahospital transfer and discharge transfer, child and adolescent for statistical purposes, retrospective and concurrent methods of data collection, emergency room/department and trauma center, a register and an index. • Assign basic service classification	Koch: Chapter 3	• MindTap Assignments and Quiz
4	Mathematical Review • Compute fractions, decimals, percentages, and rates • Distinguish between a numerator, denominator, and quotient • Average a set of numbers • Round data to a specified number • Convert data from one set of measures to another • Convert data to another unit of measure	Koch: Chapter 4	• MindTap Assignments and Quiz
5	Census • Distinguish between: Census, inpatient census, and daily census, intrahospital transfer and interhospital transfer, adults	Koch: Chapter 5	• MindTap Assignments and Quiz

WEEK/ DATE	LECTURE TOPIC/ OBJECTIVES	REQUIRED READING	LAB/WEEKLY ASSIGNMENT
	and children and newborns, patients included in a bed count versus a bassinet count. • Define: Inpatient service day, admitted and discharged, and "period" as used in statistical computation. • Describe when a census is to be taken • Identify deaths excluded in inpatient statistics • Computer: Daily census, period census, average census		
6	Percentage of Occupancy • Define bed count, bed complement, and bassinet count • Describe the general formula for computing a rate • Identify beds included and excluded in a bed count • Compute the following rates: bed occupancy percentage, bassinet occupancy percentage, occupancy percentage with a change in bed/bassinet count • Bed/bassinet turnover rates	Koch: Chapter 6	• MindTap Assignments and Quiz
7	Length of Stay • Define discharge/discharge days, length of stay, and "leave of absence day and when it is included or excluded. • Identify the days counted and excluded in length of stay determinations • Describe when discharge days are acquired • Compute the following for A&C and NB: Individual lengths of stay, total lengths of stay for a designated period, and average length of stay.	Koch: Chapter 7	• MindTap Assignments and Quiz
8	Hospital Mortality Rates • Define mortality • Distinguish clearly between net versus gross, newborn death, infant death, and fetal death • Identify deaths excluded in gross and net death rates	Koch: Chapter 8	• MindTap Assignments and Quiz

WEEK/ DATE	LECTURE TOPIC/ OBJECTIVES	REQUIRED READING	LAB/WEEKLY ASSIGNMENT
	• Compute the following death rates: Gross death rate, net death rate, newborn death rate, surgical postoperative death rate, and anesthesia death rate.		
9	Obstetrical-Related Rates • Distinguish between direct and indirect maternal death, abortion, stillbirth, and fetal death • Define and explain: delivered/undelivered, puerperium, neonate/infant, and neonatal, perinatal, and postnatal periods. • Compute the following rates: Maternal death rate, newborn death rate, fetal death rate, Cesarean section rates • Classify neonates according to the ACOG classification system • Classify fetal deaths by gram weight and gestational age	Koch: Chapter 9	• MindTap Assignments and Quiz
10	Autopsy Rates • Distinguish clearly between: Autopsy vs. hospital autopsy vs. inpatient autopsy • Describe the types of deaths that most likely are "coroner's cases" • Describe when coroner's cases are included in hospital autopsies • Distinguish which autopsies are included in hospital autopsies • Compute the following autopsy rates: Gross autopsy rate, net autopsy rate, hospital autopsy rate, newborn autopsy rate, fetal autopsy rate	Koch: Chapter 10	• MindTap Assignments and Quiz
11	Miscellaneous Rates • Distinguish clearly between: nosocomial and community-acquired infections, surgical procedure and surgical operation • Define: Nosocomial infection, consultation, complication, and comorbidity • Identify infections considered postoperative infections	Koch: Chapter 11	• MindTap Assignments and Quiz

WEEK/ DATE	LECTURE TOPIC/ OBJECTIVES	REQUIRED READING	LAB/WEEKLY ASSIGNMENT
	• Compute the following rates: Infection rates such as nosocomial, community-acquired, postoperative, and hospital, consultation rates, complication rates, and comorbidity rates		
12	Vital Statistics Data/Rates • Identify: The major vital statistics certificates issued and registered, the national governmental agency associated with vital statistics, and the most common multiplier used in vital statistics rate formulas • Define: Morbidity, epidemiology, epidemic, endemic disease, prevalence, and incidence • Compute: Obstetrical-related vital statistics mortality rates such as maternal, infant, neonatal, perinatal, postneonatal, and fetal • Compute rates for prevalence and incidence of disease • Compute population mortality rates: Crude, age-specific, cause-specific, cancer, cause race-specific, proportional, and case fatality • Compute measures of fertility, including crude birth rate and general fertility rate	Koch: Chapter 12	• MindTap Assignments & Quiz
13	Measures of Central Tendency and Dispersion • Define and identify the measures of dispersion – range, variance, and standard deviation • Compute the following: Range, median, mode, mean from an ungrouped and grouped distribution, variance and standard deviation from an ungrouped and grouped distribution Graphic Representation • Determine the type of chart/graph appropriate for presenting various data • Construct the following using computer software: Bar chart/column chart, pie	Koch: Chapter 13 Koch: Chapter 14	• MindTap Assignment • MindTap Assignments and Quiz – Chapter 14

WEEK/ DATE	LECTURE TOPIC/ OBJECTIVES	REQUIRED READING	LAB/WEEKLY ASSIGNMENT
	chart, line chart, comparison chart, and stack chart. • Interpret statistical graphs • Distinguish among & interpret: Pictogram, histogram, & frequency polygon		
14	THANKSGIVING HOLIDAY		
16	• Final Exams	Date & Time TBA	

***Any chapters/assignments listed above may be given as Self-Study assignments at any time during the semester at the instructor's discretion and will still be included on the final comprehensive examination.**

****Additional lab time may be required for any student who does not complete the requirements of the above outline during the regularly scheduled class meeting.**

Course Goals and Objectives

At the end of the course, the student will complete the following Competencies and Suggested Objectives:

Competencies and Suggested Objectives
1. Compile health-care statistics and research. a. Abstract and maintain data for clinical indices/databases/registries. b. Collect, organize, and present data for quality management, utilization management, risk management, and other related studies. c. Compute and interpret health-care statistics. d. Apply Institutional Review Board (IRB) processes and policies. e. Use specialized databases to meet specific organization needs such as medical research and disease registries.
Knowledge Clusters (Curricular Components) • Vital statistics (Evaluating, 5) • Healthcare statistics (Evaluating, 5) • Descriptive statistics (such as means, frequencies, ranges, percentiles, standard deviations) (Understanding, 2) • Statistical applications with health care data (Applying, 3) • Data selection, interpretation, and presentation (Evaluating, 5)

- Knowledge-based research techniques (such as library, MEDLINE, web-based)(Evaluating, 5)
- Outcomes measures and monitoring (Applying, 3)

Standards Based on the American Health Information Management Association

AHIM 2 Health Statistics, Biomedical Research, and Quality Management

HIT ENTRY LEVEL COMPETENCIES

Domains, Subdomains, and Tasks covered in this course: HIT 2133 Health Statistics

II. Domain: Health Statistics, Biomedical Research and Quality Management

A. Subdomain: Healthcare Statistics and Research

2. Collect, organize and present data for quality management, utilization management, risk management, and other related studies.
3. Compute and interpret healthcare statistics
4. Apply Institutional Review Board (IRB) processes and policies.
5. Use specialized databases to meet specific organization needs such as medical research and disease registries.

B. Subdomain: Quality Management and Performance Improvement

1. Abstract and report data for facility-wide quality management and performance improvement programs.
2. Analyze clinical data to identify trends that demonstrate quality, safety, and effectiveness of healthcare.

Methods of Assessment

<u>The student will be evaluated on the following items</u>:

- ✓ **<u>Weekly/Chapter Tests and Laboratory Assignments</u>**. All question and answer assignments must be prepared using **MICROSOFT WORD**. If a student completes an assignment outside of the lab, the assignment must be saved in a format compatible with **MICROSOFT WORD**. Question and Answer assignments are expected to be in a neat and easy to understand format. The student is expected to include the course name/number/,

their name, date, and page number(s) at the top of each assignment. Students are required to print out the homework assignment sent to their email and attach the email to the top of each assignment turned in. STUDENTS SHOULD PAY CLOSE ATTENTION TO THE DEADLINE FOR EACH ASSIGNMENT AND SUBMIT ALL ASSIGNMENTS BY THOSE DEADLINES

- ✓ **Final Comprehensive Exam** covering all chapters covered in class and in self study. The Final Examination will count 25% of your total grade. A mid-term exam will not be given. If a test(s) falls during the week of mid-terms, it is not considered as such.

- ✓ **Student Email** will be a requirement for each student. Students will be required to check their SMCC email accounts on a daily basis for items such as homework assignments, announcements, policies, schedules, etc.

MAKE-UP WORK POLICY

All make-up work must be completed within **ONE WEEK** of a missed deadline and will receive an automatic TEN (10) point deduction from their score. Any assignments submitted over one week after the original deadline will receive an automatic grade of ZERO. ***Make-up work assignments are the responsibility of the student.*** ***The instructor is not responsible for reminding the student of missing work.***

Tests are not considered as make-up work**. Make-up tests will NOT be given. If the student has a valid excuse, according to the SMCC absence policy, then the final exam grade will replace the missed test grade at a maximum of 2 missed tests. It is your responsibility to contact the instructor about any make-up work to be completed. No excuse = no makeup work or tests = zero.**

ASSIGNMENTS AND TESTS

Students will be expected to complete ***all*** assignments. Letter grades will be assigned in relation to the number of points accumulated on daily assignments, projects, and exams. However, not all daily work will receive a grade as most class work is done for practice.

The following grading scale will be used in the Health Information Technology Department:

- A = 90 -100
- B = 80 - 89
- C = 70 - 79
- F = Below 70

Averaging:

20% Final Comprehensive Exam grade
40% Written/Performance Tests
40% Daily Assignments

All assignments and test should be completed and submitted on the assigned deadline. Failure to complete a test on the assigned date will result in a grade of zero (0) on the test. The test can only be replaced with the final exam grade only (maximum of 2 times, any other missed tests result in a zero) if the student is absent due to a school activity, hospitalization of the student, or a death in one's immediate family. If the student is absent from class when a deadline is assigned for a regular class work assignment, the student should submit their work within that day or a zero will be assigned. The student needs to give the assignment to the instructor during regular office hours of 1:00 to 3:00 p.m. The student will receive a ***ten*** point penalty for all late work.

CHEATING POLICY

- Giving your class work, examinations, homework, and lab assignments to another student is not allowed. Receiving another student's class work, examination, homework, or lab assignment is not allowed. Copying/Printing from another student is not allowed. The student(s) involved will automatically be sent to a meeting with the Career and Technical Dean and possibly face dismissal from the program and SMCC. Your professional conduct grade will be deducted at least 50 points and possibly 100. If the student is caught a second time, it will automatically result in immediate dismissal from the program and SMCC.

- Failure to adhere to this policy will result in both students receiving a "0" for that assignment and a visit to the Career and Technical Dean for possible further action which could involve an expulsion from the program.

WITHDRAWAL POLICY

- If a student withdraws from school prior to the last date to withdraw from school without penalty, the record will show a "W" for withdrawal. If the student withdraws after the last date to withdraw from school without penalty, the record will show a "WP" for withdrawal passing or "WF" for withdrawal failing for each course depending upon what the grade was at the mid-term reporting period.

- To withdraw officially from the college, the student must secure a *WITHDRAWAL FORM* from the Registrar or the counselor. The student should then notify their advisor(s) of their intent to withdraw. Failure to withdraw properly will forfeit the student's right to any refund due and will result in his/her grade on each subject being recorded as *"FAILURE"* on his/her *PERMANENT* record. A student must pay all fees due to complete withdrawal. A student will not be allowed to withdraw during final exam week.

Office for Disability Accomodations Policy Statement

- In accordance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act (1990), Southwest Mississippi Community College provides reasonable accommodations for students with disabilities through the Office for Disability Accommodations (ODA).

- Students with disabilities needing academic and/or physical accommodations should register with and provide documentation to the Office of Student Services. This should be completed the first week a student attends class. (See page 14 and 15 of the Southwest Mississippi Community College catalog for instructions.)

- ADA Statement:

  Southwest Mississippi Community College does not discriminate on the basis of race, color, national origin, age, sex, religion, or disability in its programs, activities or employment practices. The following persons have been designated to handle inquiries and grievances regarding the non-discrimination policies: Rhonda Gibson, Director of Disability Support Services, 601-276-3885; Dr. Bill Ashley, Vice President of Student Affairs and Title IX Coordinator, 601-276-3717, 1156 College Dr., Summit, MS 39666.

- *To be considered for reasonable accommodations each semester, students must make requests to the ADA/OCR Coordinator by the end of the second week of classes.

Procedures for Acquiring Accommodations & Disability Support Services

Each student who wishes to be served by Disability Support Services must:

- self-identify by contacting the Disability Support Services Office in a timely manner to request accommodations for the current semester
- complete the DSS application
- provide documentation of the disability or disabilities
- request accommodations each semester

It is recommended that you request accommodations prior to the beginning of the semester to ensure that you receive your accommodations in a timely manner.
SMCC administrators and faculty cannot approve or provide accommodations without this letter.
Disability Support Services is a non-fee generating program designed to meet the unique needs of SMCC students with disabilities. Reasonable accommodations are offered in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). You can download the DSS forms and find more information at www.smcc.edu/index.php/dss.

Mrs. Rhonda Gibson is our Director of Disability Support Services and her office is located in room 129, located on the first floor of Kenna Hall in Student Services. To make an appointment with ***Mrs. Gibson, please call 601-276-3885 or email her at rgibson@smcc.edu.***

Southwest Mississippi Community College does not discriminate on the basis of race, color, national origin, age, sex, religion, or disability in its programs, activities or employment practices. The following persons have been designated to handle inquiries and grievances regarding the non-discrimination policies: Mrs. Rhonda Gibson, Director of Disability Support Services, 601-276-3885; Dr. Bill Ashley, Vice President for Student Affairs and Title IX Coordinator and Director of Athletics, 601-276-3717, 1156 College Dr., Summit, MS 39666.