

Course Objectives/Course Outline
Spokane Community College

Course Title: Health Data Analysis and Display
Prefix and Course Number: HIM 209

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Understand basic statistical concepts such as fractions, rounding, percentage, ratios, rates and averages.
- Collect, maintain, and report data for clinical indices/databases/registries to meet specific organization needs such as medical research and disease registries
- Collect, organize, and present data for quality management, utilization management, risk management, and other related studies.
- Monitor and report staffing levels and productivity standards and budget variance for health information functions
- Comprehend basic descriptive, institutional, and healthcare vital statistics.
- Apply key concepts and calculations in inferential statistics.

Course Outline:

I. Informatics, Analytics and Data Use

- A.** Identify what autopsies and deaths are included in each type of autopsy rate
- B.** Identify what deaths are not included in each type death rate
- C.** Explain how leave of absence can affect healthcare statistics I.9: Discover how healthcare operations needs and public health needs rely on healthcare statistics
- D.** Order data to identify rank, mean, median, and mode
- E.** Describe categorical data
- F.** Explain the importance of skew and correlation
- G.** Determine what a low bed turnover and high bed turnover rate indicates I.10: Identify the sources of healthcare statistics
- H.** Use data from multiple healthcare units to complete the inpatient census, master census, and daily inpatient census
- I.** Create a spreadsheet
- J.** Identify the guidelines for creating a report
- K.** Define tables, frequency distribution tables, bar graphs, pie charts, line graphs, histograms, frequency polygons, pictograms, and scatter diagrams
- L.** Summarize and calculate: productivity standards, staffing levels, budgets
- M.** Calculate total inpatient service days and average daily inpatient census
- N.** Review and compute basic math skills to assist in calculating healthcare statistics
- O.** Demonstrate how to calculate inpatient bed count, bed occupancy ratio, and bed turnover rate
- P.** Compute length of stay, total length of stay, average length of stay, discharge days
- Q.** Demonstrate how to calculate death rates
- R.** Calculate autopsy rates
- S.** Compute nosocomial infection rate, postoperative infection rate, complication rate, cesarean-section rate, and consultation rate
- T.** Calculate health information department statistics
- U.** Demonstrate how to find variance and standard deviation
- V.** Explain inferential statistics
- W.** Compare and contrast descriptive and inferential statistics

Print Date: 3/5/20

- X.** Interpret the standard error of the mean and confidence interval
- Y.** Identify and describe the null hypothesis
- Z.** Understand the importance of t tests and the chi-square
- AA.** Interpret ANOVA