



**BAKER COLLEGE**  
**STUDENT LEARNING OUTCOMES**  
**HIT2010 Healthcare Data Analytics and Statistics**  
**3 Semester Credit Hours**

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**Student Learning Outcomes and Enabling Objectives**

1. Demonstrate basic math skills. (III.3) (Bloom's 3)
  - a. Perform addition, subtraction, multiplication, and division skills.
  - b. Convert fractions, decimals, and percentages.
  - c. Use proper rounding rules.
2. Interpret inferential statistics. (III.2) (Bloom's 4)
  - a. Investigate ANOVA, t-tests, level of significance, reliability, validity, and hypothesis testing.
3. Apply graphical tools for data presentations (III.4) (Bloom's 3).
  - a. Select the proper tool to display the data (run chart, bar graph, pie chart, histogram, pivottable)
4. Explain analytics and decision support (III.4) (Bloom's 4).
  - a. Demonstrate knowledge of analytics and decision support tools (data visualization, dashboards, data capture tools, and technologies).
5. Utilize basic descriptive, institutional, and healthcare statistics (III.3) (Bloom's 3).
  - a. Calculate measures of central tendency, frequency, percentile, standard deviation, and ratios.
  - b. Calculate healthcare statistics (LOS, death, autopsy, infections, and birth rates).
6. Analyze statistical data to identify trends (I.I) (Bloom's 4).
  - a. Analyze the structure and use of health information and health care outcomes (comparative & aggregate analytics).
  - b. Analyze the quality, safety, and effectiveness of healthcare.
7. Explain common research methodologies and why they are used in healthcare (III.5) (Bloom's 2).
  - a. Summarize research methodologies including quantitative, qualitative,

mixed methods, literature review, and Institutional Review Board (IRB).

## **Big Ideas and Essential Questions**

### **Big Ideas**

- Healthcare Statistics and Data Analytics
- Presentation of Data

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These SLOs are not approved for experiential credit. The HIT program is accredited and students must complete the actual course work at Baker College or another college that offers an accredited HIT program.

**Effective: Fall 2017**