

Common Course Outline
HIIT 220
Health Data Research and Analysis
3 Credits

Community College of Baltimore County

Description

HIIT 220 – Health Data Research and Analysis prepares students to collect, organize, analyze, and present data in areas such as facility usage, cost review, patient population, length of stay, and disease prevalence. Emphasis is placed on data collection and evaluation of data to assess and improve quality management, utilization management, and risk management in a healthcare facility.

3 Credits

Prerequisites: HIIT 130 and HIIT 210

Overall Course Objectives

Upon completion of this course students will be able to:

1. compile website, database, and journal references that report health statistics;
2. develop a list of health data sets from secondary data sources;
3. discuss hypotheses in research studies;
4. explain study protocols for human subject research;
5. benchmark performance measures for data analysis;
6. abstract and report data for facility-wide management and performance improvement;
7. analyze data using statistical software;
8. describe how data dictionaries improve the reliability and dependability of semantics across systems;
9. summarize performance improvement criteria of accreditation and licensure standards;
10. discuss various performance improvement models;
11. interpret a risk analysis cause-and-effect diagram;
12. analyze clinical data to identify trends that impact quality, safety, and effectiveness in the healthcare facility;
13. evaluate application of systems and policies to quality improvement recommendations;
14. apply Health Insurance Portability and Accountability Act of 1996 (HIPAA) legal, regulatory, and ethical guidelines to quality improvement scenarios;
15. draw logical conclusions from health data analysis; and
16. prepare an analytical report with data display.

Major Topics

- I. Statistical Measures in Healthcare
 - A. Descriptive Statistics
 - B. Central Tendency
 - C. Variability
 - D. Normal Distribution
 - E. Statistical Inference
- II. Indicators for Research and Data Collection
- III. Trend Analysis
- IV. Performance Improvement Activities
 - A. Brainstorming
 - B. Diagraming
 - C. Benchmarking
- V. Administrative and Clinical Health Data Sets
- VI. Data Dictionaries
- VII. Institutional Review Board
- VIII. Medical Research and Disease Registries
- IX. Quality Improvement Models
 - X. HIPAA Compliance
- XI. Legal and Ethical Issues

Course Requirements

Grading procedures will be determined by the individual faculty member but will include the following:

Grading/exams

- A minimum of 2 weekly assignments to include case studies
- A minimum of 2 graded discussion board assignments
- A minimum of 4 quizzes
- Written research project with data presentation, minimum 1000 words
- Midterm exam
- Comprehensive final exam

Written Assignments: Students are required to use appropriate academic resources.