

SCHOOL OF HEALTH SCIENCES
HEALTH INFORMATION TECHNOLOGY

COURSE OUTLINE

I. COURSE DESCRIPTION:

HM231 Health Informatics and Data Analytics

C-2, P-3, CR-3

This course takes an interprofessional approach to learning about informatics and provides a comprehensive understanding about how informatics and data analytics relate to the healthcare industry. (Online Only)

Two class hours and three lab hours weekly.

Prerequisites: HM202 Health Data and Quality Management

II. MATERIALS:

Text and Learning Materials: Biedermann & Dolezel. *Introduction to Healthcare Informatics*, 2nd edition. ISBN:9781584265283. AHIMA. White, Susan. *A Practical Approach to Analyzing Healthcare Data*, 3rd edition. ISBN: 9781584264811. AHIMA.

III. EVALUATION METHODS:

Students will be evaluated in the following manner:

Written Assignment/Project	25%
Exams	25%
Final Comprehensive Exam	25%
Attendance /Assignments	25%

IV. STUDENT LEARNING OUTCOMES:

Upon completion of this course the student will be able to:

1. Explain methods and functions of the informatics field.
2. Conduct an in-depth analysis of data types, standards, data quality, and the interpretation and display of information.
3. Apply ethics in informatics, with focus on impact on provider–patient relationships, empirical research, and health literacy.
4. Explain research and data analytics methods, including advanced analysis, data visualization, and data reporting.
5. Evaluate data dictionaries and data sets for compliance with governance standards.
6. Describe the concepts of managing data.
7. Manage data within a database system.
8. Analyze data within a database system using software (e.g., SQL).

V. MAJOR TOPICS:

1. Evolution of Informatics
2. Healthcare Information Systems
3. Healthcare Informatics and the Internet
4. Project Management Tools and Procedures for Health Informatics
5. Informatics Quality, Standards, and Usability
6. Informatics Governance and Organizational Structures
7. Informatics in Education
8. International Informatics Efforts
9. Ethics in Informatics
10. Research and Data Analytics Methods
11. Data Dictionaries, Data Sets
12. Managing Data
13. Data Analysis Using Specialized Software (e.g., SQL)