

## **Course & Title:**

### **HIM 350–Health Informatics Research**

#### **Instructor:**

**Darnez Pope, MSHI, RHIA**  
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**270-745-6561**  
**Academic Complex, Office 127A**

#### **Contact Information:**

The *best way* to contact me is either through email at [darnez.pope@wku.edu](mailto:darnez.pope@wku.edu) or during my posted office hours. My virtual office hours are flexible. My onsite office hours will vary. Office hours are posted under “Instructor Information” on Blackboard. If contacting me by email, I will make every effort to respond within 24 hours during the week and 48 hours during the weekend.

#### **Credit Hours:**

Three semester hours

#### **Prerequisites:**

None

#### **Course Description:**

Applies principles and methods of scientific research to selected topics in Health Informatics and relevant healthcare issues.

#### **Recommended Course Textbook:**

White, Susan. Calculating and Reporting Healthcare Statistics, American Health Information Management Association, 2020, 6th Edition. Paperback ISBN: 9781584266839. e-ISBN: 9781584267348.

#### **Additional Course Resources:**

- AHIMA Body of Knowledge (BoK)
- Perspectives in Health Information Management
- U.S. Department of Health and Human Services Website
- WKU Library Resources for Health Information:
  - Academic Search Complete (EBSCOhost)
  - CINAHL Full Text (EBSCOhost)
  - ICD-10
  - Joint Commission E-dition
  - One Search (Primo)
  - PubMed (NIH, Open Access)
- Other reviews, as assigned

**Course Communication Tools:**

- Email (Use the following format when emailing---*Subject: HIM350-Your Name-Topic*)
- Phone
- Zoom

**The following grading system will be used to determine final grades:**

Assignments/Projects	50%
Quizzes/Tests	50%

100% - 90%	A
89% - 80%	B
79% - 70%	C
69% - 60%	D
59% - 50%	F

**Attendance Policy:**

Course is online. There will be some mandatory and non-mandatory virtual meetings.

**Due Dates:**

Students will receive grades of "0" for any assignment, exam, quiz, or test that is not submitted by the scheduled due date.

**Regular and Substantive Interaction in Online and Distance Learning:**

The U.S. Department of Education requires that distance education courses must include regular and substantive interaction between students and faculty. For more information about Regular and Substantive Interaction at WKU, please visit the [Regular and Substantive Interaction in Online and Distance Learning webpage](#).

In this course, regular and substantive interaction will take place in the following ways:

- Direct instruction with students on coursework
- Provide timely and detailed response to questions throughout the semester regarding course content or competencies
- Course announcements on Blackboard and via email
- Accessible via email, text, phone, and scheduled Zoom meetings
- Assignments and assessment deadlines are set throughout the semester (for more information, see class schedule below)

Revision: 02/20/2023

**Title IX Misconduct/Assault Statement:**

*Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and*

*Discrimination and Harassment Policy (#0.2040) at [https://wku.edu/policies/hr\\_policies/2040\\_discrimination\\_harassment\\_policy.pdf](https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf).*

*Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.*

*Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the*

*University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.*

**ADA Accommodation Statement:**

*In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at [sarc.connect@wku.edu](mailto:sarc.connect@wku.edu). Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.*

Revision: 08/16/2023

## Competencies

### 2018 CAHIIM HIM Baccalaureate Degree Curriculum Requirements

	2018 CAHIIM Curricula Competencies	Guidance	Assignments
	<b>Domain III. Informatics, Analytics, and Data Use</b>		
5	III.3. Interpret statistics for health services.	Statistical Data Analysis	Qualtrics HIM Project
5	III.5. Compare research methodologies pertaining to health care.	Research Methodologies, Research Ethics, Research Design, Research Types, Literature Review & Evaluation	Pre-Test and Post-Test (Chapter 12, 6ed) Qualtrics HIM Project
5	III.6. Manage data within a database management system.	Database Management	Qualtrics HIM Project

### Syllabus Changes:

Course and exam schedule are subject to change.

Revised. 03/08/2023

## HIM 350 CLASS SCHEDULE (Based on Central Standard Time)

WEEK	TOPIC	ASSIGNMENT & DUE DATE
Week 1	<ul style="list-style-type: none"> <li>Course Orientation in Zoom</li> <li>Part I. Research Preparation Module 1</li> </ul>	<p>Course Orientation in Zoom on <b>Tuesday, August 22 at 6pm CST</b></p> <p>Pre-Existing Knowledge of Research (Pre-Test Chapter 12 and Chapter 13)</p> <p>Skills Inventory</p> <p><b>Friday, Aug 25th, NOON</b></p>
Week 2	<ul style="list-style-type: none"> <li>Part I. Research Preparation Module 1</li> </ul>	<p>Pre-Existing Knowledge of Research (Pre-Test Chapter 12 and Chapter 13)</p> <p>Skills Inventory</p> <p><b>Friday, Sept 1st, NOON</b></p>
Week 3	<ul style="list-style-type: none"> <li>Part I. Research Preparation Module 2</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	<p>Qualtrics HIM Project: Starting Research</p> <p><b>Friday, Sept 8th, NOON</b></p>
Week 4	<ul style="list-style-type: none"> <li>Part I. Research Preparation Module 3</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	<p>Qualtrics HIM Project: Topic Exploration and Literature Review</p> <p><b>Friday, Sept 15th, NOON</b></p>
Week 5	<ul style="list-style-type: none"> <li>Part I. Research Preparation Module 3</li> <li>Part I. Reflection</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	<p>Qualtrics HIM Project: Topic Exploration and Literature Review</p> <p><b>Friday, Sept 22nd, NOON</b></p>
Week 6	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> <li>Create Qualtrics Account (Instructor will provide Access Code)</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	<p>Qualtrics HIM Project: Creating Survey Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.</p> <p><b>Friday, Sept 29th, NOON</b></p>
Week 7	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> </ul>	<p>Qualtrics HIM Project: Creating Survey</p>

WEEK	TOPIC	ASSIGNMENT & DUE DATE
	<ul style="list-style-type: none"> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.  <b>Friday, Oct 6th, NOON</b>
Week 8	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> <li>Fall Break</li> </ul>	Qualtrics HIM Project: Creating Survey Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.  <b>Friday, Oct 13th, NOON</b>
Week 9	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	Qualtrics HIM Project: Creating Survey Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.  <b>Friday, Oct 20th, NOON</b>
Week 10	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	Qualtrics HIM Project: Qualtrics HIM Project: Creating Survey Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.  <b>Friday, Oct 27th, NOON</b>
Week 11	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	Qualtrics HIM Project: Qualtrics HIM Project: Creating Survey Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.  <b>Friday, Nov 3rd, NOON</b>
Week 12	<ul style="list-style-type: none"> <li>Part II. Conducting Research Modules 4, 5, 6</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	Qualtrics HIM Project: Qualtrics HIM Project: Creating Survey Instrument, Completing IRB Forms, Completing Data Collection, and Displaying Results.  <b>Friday, Nov 10th, NOON</b>
Week 13	<ul style="list-style-type: none"> <li>Part II. Conducting Research Module 7</li> <li>Part II. Reflection</li> <li>Team Meetup(s) with Instructor and Teammates in Zoom (TBD)</li> </ul>	Qualtrics HIM Project: Presenting Research  <b>Friday, Nov 17th, NOON</b>

<b>WEEK</b>	<b>TOPIC</b>	<b>ASSIGNMENT &amp; DUE DATE</b>
Week 14	<ul style="list-style-type: none"> <li>Part III. Sharing Research Module 7</li> <li>Thanksgiving Holiday</li> </ul>	Qualtrics HIM Project: Presenting Research  <b>Friday, Nov 24th, NOON</b>
Week 15	<ul style="list-style-type: none"> <li>Part III. Sharing Research Module 7</li> </ul>	Qualtrics HIM Project: Presenting Research  <b>Friday, Dec 1st, NOON</b>
Week 16	<ul style="list-style-type: none"> <li>Part III. Sharing Research Modules 7, 8</li> <li>Part III. Reflection</li> <li><b>End of Course</b></li> </ul>	Qualtrics HIM Project: Present Research Growth in Knowledge of Research (Post-Test Chapter 12 and 13)  <b>Thursday, Dec 8th, NOON</b>

Course Schedule Revised: 08/16/2023

## Course Content

- I. Basic Research Principles-Basic Research Principles
- II. Basic Research Principles-Types of Research
  - A. Research Methodology
- III. Basic Research Principles-The Research Process
  - A. Defining the Problem
  - B. Reviewing the Literature
  - C. Designing the Research and Collecting the Data
  - D. Analyzing the Data
  - E. Drawing Conclusions
- IV. Basic Research Principles-Data Interpretation Issues
  - A. Misleading Presentation of Numbers
  - B. Ignoring the Baseline
  - C. Selecting Bias
  - D. Graphical Misrepresentations
  - E. Sabotage
  - F. Importance of Data Validation
  - G. Introduction to Institutional Review Boards
  - H. Privacy Considerations in Clinical and Biomedical Research
  - I. Ethical Guidelines in Statistics
- V. Inferential Statistics in Healthcare-Inferential Statistics
  - A. Confidence Intervals
  - B. Hypothesis Testing
- VI. Inferential Statistics in Healthcare- $t$  Test
- VII. Inferential Statistics in Healthcare-Chi-Square

## Course Content Objectives

I., II., III., and IV. (Basic Research Principles)

- A. Compare and contrast quantitative research and qualitative research.
- B. Distinguish among the types of research, research methods, samples, data collection techniques, and data interpretation issues.
- C. Determine the steps in the research process.
- D. Explain the role of the Institutional Review Board (IRB) in research in healthcare facilities.
- E. Comply with ethical guidelines in the use of statistics.

V., VI., VII. (Inferential Statistics in Healthcare)

- A. Explain inferential statistics.
- B. Compare and contrast descriptive and inferential statistics.
- C. Interpret the standard error of the mean and confidence intervals.
- D. Identify and describe the null hypothesis.
- E. Understand the importance of  $t$  tests and the chi-square.