

Course & Title:

HIM 350–Health Informatics Research

Instructor:

Darnez Pope, MSHI, RHIT
Darnez.pope@wku.edu
270-745-6561
Academic Complex, 411 E

Contact Information:

The *best way* to contact me is either through email at darnez.pope@wku.edu or during my posted office hours. My 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:

HIM 230, PH 230, PH 383, HCA 340

Course Description:

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

Course Textbook:

Textbook is mandatory.

Layman, Elizabeth J. and Watzlaf, Valerie J. Health Informatics Research Methods: Principles and Practice, American Health Information Management Association, 2017.
Paperback ISBN: 9781584265320.

Additional Course Resources:

- AHIMA Body of Knowledge
- Educational Perspectives in Health Informatics and Information Management
- Perspectives in Health Information Management
- U.S. Department of Health and Human Services website
- Library Resources: Library Resources for Health Information
 - CINAHL (EBSCOhost)
 - Academic Search Premier (EBSCOhost)
- Other reviews, as assigned

Course Communication Tools:

- Email (Use the following format when emailing the instructor---Subject: HIM350-Your Name-Topic)
- Blackboard Collaborate (aka Bb Collaborate or Web Meeting)

Examinations:

All exams must be completed by assigned due date.

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

Quizzes/Tests	50%
Assignments	50%

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

Attendance Policy:

Course is online. Students are expected to complete all graded work by due date.

Due Dates:

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

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.

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. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Syllabus Changes:

Class and exam schedule are subject to change.

Dev. 4/2017

WEEK	TOPIC	ASSIGNMENT & DUE DATE
Week 1	Course Orientation Chapter 1- Research Frame and Design Article Review: AHIMA BOK- "Building an Evidence Base for High Quality HIM"	<ul style="list-style-type: none"> • Purchase Textbook • Complete Discussion Questions • Quiz 1 Thursday, Sept 6th, NOON
Week 2	Chapter 2- Survey Research	<ul style="list-style-type: none"> • Complete "Research Design of Articles" Assignment • Quiz 2 Thursday, Sept 6th, NOON
Week 3	Chapter 3- Observational Research	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 3 Thursday, Sept 13th, NOON
Week 4	Chapter 4- Experimental and Quasi- Experimental Research	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 4 Thursday, Sept 20th, NOON
Week 5	Chapter 5- Epidemiological Research	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 5 Thursday, Sept 27th, NOON
Week 6	Chapter 6- Evaluation Methods	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 6 Thursday, Oct 4th, NOON
Week 7	Chapter 7- Data Science and Data Mining	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 7 Thursday, Oct 11th, NOON
Week 8	Chapter 8-Systematic Review and Meta- Analyses	<ul style="list-style-type: none"> • Complete Midterm Exam Thursday, Oct 18th, NOON
Week 9	Chapter 9- Applied Statistics	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 8 Thursday, Oct 25th, NOON
Week 10	Chapter 10- Defining the Research Question and Performing a Literature Review (Topic Continued)	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 9

WEEK	TOPIC	ASSIGNMENT & DUE DATE
	Article Review: AHIMA BOK- "Getting to know PubMed: An Overview Updated"	Thursday, Nov 1st, NOON
Week 11	Chapter 11- Selecting the Research Design and Method and Collecting Data	<ul style="list-style-type: none"> • Complete "Analysis of Human Subjects Research" Assignment • Quiz 10 Thursday, Nov 8th, NOON
Week 12	Chapter 12- Analyzing Data and Presenting Results	<ul style="list-style-type: none"> • Complete Discussion Questions • "Statistical Analysis Activity" Assignment • Quiz 11 Thursday, Nov 15th, NOON
Week 13	Chapter 13- The Grant Process and Proposal Writing	<ul style="list-style-type: none"> • Complete Discussion Questions • Quiz 12 Thursday, Nov 22nd, NOON
Week 14	Chapter 14- Research and Ethics Review AHIMA Code of Ethics and Standards of Ethical Coding	<ul style="list-style-type: none"> • Complete "Situational Analysis and Case Studies" Assignment • Quiz 13 Thursday, Nov 29th, NOON
Week 15	Chapter 15- Disseminating Information Article Review: NIH "Preparing and Presenting Effective Research Posters"	<ul style="list-style-type: none"> • Complete "Review of Presentations" Assignment • Quiz 14 Thursday, Dec 6th, NOON
Week 16		<ul style="list-style-type: none"> • Complete Final Exam Thursday, Dec 13th, NOON

2014 AHIMA Council for Excellence in Education (CEE) HIM Baccalaureate Degree Curriculum Requirements

Subdomain III.C. Analytics and Decision Support		
1. Apply analytical results to facilitate decision-making (3)	*Data visualization, PowerPoint, dashboards	Chapter 7 Quiz?
2. Apply data extraction methodologies (3)	* Healthcare statistical formulas (LOS, death, birth, infection rates)	Chapter 7 Quiz?
3. Recommend organizational action based on knowledge obtained from data exploration and mining (5)	*Data exploration and mining	Chapter 7 Quiz?
4. Analyze clinical data to identify trends that demonstrate quality, safety and effectiveness of healthcare (4)	* Statistical analysis on healthcare data	Statistical Analysis Part I and Statistical Analysis Part II
	* Descriptive statistics (Mean, standard deviation, ranges, percentiles)	Chapter 11 Discussion Questions; Statistical Analysis Part I; Statistical Analysis Part II; Quiz Questions
	* Inferential statistics (T-tests, ANOVA, regression analysis, reliability, validity)	Chapter 11 Discussion Questions; Statistical Analysis Part I; Statistical Analysis Part II; Quiz Questions
	* Epidemiological applications	"Analysis of Human Subjects' Research Guidelines" Assignment; Chapter 10 Quiz
5. Apply knowledge of database querying and data exploration and mining techniques to facilitate information retrieval (3)	SQL, Data exploration and mining	Chapter 7 Quiz?
6. Evaluate administrative reports using appropriate software (5)	SQL, Reporting tools	Chapter 7 Quiz?
Subdomain III.D. Health Care Statistics		
1. Interpret inferential statistics (5)	*Inferential statistics	Chapters 12 Assignment?
	*T-tests, ANOVA, regression analysis, reliability, validity	
	*Computerized statistical packages	Chapter 12 Assignment?
	*SPSS, SAS	Chapters 12 Assignment?

2. Analyze statistical data for decision making (4)	* Statistical analysis on healthcare data	Chapter 11 Discussion Questions; Statistical Analysis Part I; Statistical Analysis Part II; Quiz Questions
	* Descriptive statistics (Mean, standard deviation, ranges, percentiles)	Chapter 11 Discussion Questions; Statistical Analysis Part I; Statistical Analysis Part II; Quiz Questions
	* Data reporting and presentations techniques	Discussion Questions; Review of Presentations Assignment
Subdomain III.E. Research Methods		
1. Apply principles of research and clinical literature evaluation to improve outcomes (3)	* Research design/methods (Quantitative, qualitative, evaluative, mixed, outcomes)	"Research Design of Articles" Assignment
	* Literature search and evaluation	Chapter 9 Discussion Questions; Chapter 9 Quiz Questions
	* Knowledge-based research techniques (Medline, CMS libraries, AHRQ, and other websites)	Chapter 9 Discussion Questions; Chapter 9 Quiz Questions
2. Plan adherence to Institutional Review Board (IRB) processes and policies (3)	* National guidelines regarding human subjects research	"Analysis of Human Subjects' Research Guidelines" Assignment; Chapter 10 Quiz Questions
	* IRB process	Chapter 13 Quiz Questions
	* Research protocol data management	Chapter 10 Quiz Questions

Dev. 08/2017

Course Content

Course Objectives