

NURS 8902 - Healthcare Biostatistics

Summer 2026 Syllabus, Section 01, CRN 30291,

Credit hours: 3

Instructor

Lucy Kerns

Professional Qualifications:

Ph. D., Mathematics, Bowling Green State University, 2006

Master's, Applied Statistics, Bowling Green State University, 2004

Associate Professor

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Communication Expectations:

Please use email for all course-related communication. I typically respond within 24 hours on weekdays (Monday–Friday) and within 48 hours over the weekend.

How to Refer to me:

Dr. Kerns

Course Description

8902. Healthcare Biostatistics. This course will cover principles of biostatistics in the context of public health applications. It will include the basic techniques for analyzing and investigating public health issues including disparities. Statistical package SPSS will be used. Prereq.: Acceptance and Enrollment in the DNP Nurse Anesthesia Program. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required			

Textbook: *Essentials of Biostatistics in Public Health*, 4th edition by Lisa Sullivan.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
5/11	Ch 1-3	Introduction, Overview, and Software Installation	Quiz 1 (due at 11:59pm, Monday, May 18)
5/18	Ch 4 & SPSS	Summarizing Data Collected in the Sample	
5/25	Ch 4 & SPSS	Summarizing Data Collected in the Sample	Quiz 2 and Assignment 1 (due at 11:59pm, Monday, June 1)
6/1	Ch 5	The Role of Probability	
6/8	Ch 5	The Role of Probability	Quiz 3 and Exam 1 (due at 11:59pm, Monday, June 15)
6/15	Ch 6	Confidence Interval Estimates	Quiz 4(due at 11:59pm, Monday, June 22)



6/22	Ch 7: 7.1-7.3; Ch 8: 8.2	Hypothesis Tests for One Sample & Sample Size Determination	Quiz 5 (due at 11:59pm, Monday, June 29)
6/29	Ch 7: 7.5, 7.6, & 7.8	Comparison of Two Means & Analysis of Variance	Quiz 6 and Assignment 2 (due at 11:59pm, Monday, Jul 6)
7/6	Ch 7: 7.4, 7.9; Ch 9: 9.1, 9.2	Contingency Tables & Multiple 2x2 Tables	Quiz 7 and Assignment 3 (due at 11:59pm, Monday, July 13)
7/13	Ch 9: 9.3, 9.4	Correlation and Linear Regression	Quiz 8 and Exam 2 (due at 11:59pm, Monday, July 20)
7/20	Ch 9: 9.5	Logistic Regression	Quiz 9 and Assignment 4 (due at 11:59pm, Monday, Jul 27)
7/27	Ch 10	Nonparametric Tests	Quiz 10 (due at 11:59pm, Monday, Aug 3)
8/3	Ch 11	Survival Analysis	
8/10		Review	Final Exam (due at 11:59pm, Friday, Aug 14)

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.