

STAT 3743 - Probability and Statistics

Fall 2026 Syllabus, Section 02, CRN 41246,

Credit hours: 4

Instructor

Brittany Barbush

Email: bbarbush@ysu.edu

Public Instructor Information

Instructor Title: Part-time Faculty

Instructor Professional Qualifications: M.S. Mathematics, Shawnee State University (2022). B.S. Education (Integrated Mathematics), Kent State University (2013).

Instructor Office Location: Cafaro Hall Rm: 643

Instructor Office Phone: 330-941-1379

Course Description

3743. Probability and Statistics. A calculus-based probability and statistics course. Topics include descriptive statistics, probability models and related concepts and applications, statistical estimation, and hypothesis testing. Credit will not be given for both STAT 3717 and STAT 3743. Prereq.: "C" or better in MATH 1572, MATH 1572H, MATH 1581, MATH 1581H or MATH 1585H. 4 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Statistics for Engineers and Scientists. William Navidi. (6th Edition). Inclusive Access		

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
8/24	Chapter 1: Intro, 1.1	Course Introduction/Sampling and Descriptive Statistics	
8/31	Chapter 1: 1.2, 1.3	Sampling and Descriptive Statistics	
9/7	Chapter 2: 2.1, 2.2	Probability	
9/14	Chapter 2: 2.3, 2.4	Probability	
9/21	Chapter 4: 4.1 - 4.8	Commonly Used Distributions	
9/28	Chapter 4: 4.9-4.11	Commonly Used Distributions	
10/5	Chapter 5: 5.1 - 5.4	Confidence Intervals	
10/12	Chapter 5: 5.5 - 5.8	Confidence Intervals	
10/19	Chapter 6: 6.1 - 6.4	Hypothesis Testing	
10/26	Chapter 6: 6.5 - 6.10	Hypothesis Testing	
11/2	Chapter 7: 7.1 - 7.4	Correlation and Simple Linear Regression	
11/9	Chapter 8: 8.1 - 8.3	Multiple Regression	
11/16	Chapter 9: 9.1 - 9.4	Factorial Experiments	
11/23	Chapters 3 & 10	Propagation of Error and Statistical Control	
11/30	Course Review		

12/7

Final Exam Week

Final Exam: Tuesday, December 8th 10:30
-12:30

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.