STAT 2625 - Statistical Literacy and Critical Reasoning

Fall 2026 Syllabus, Section 03, CRN 44300,

Credit hours: 4

Instructor

Stephen Franz

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Public Instructor Information

Professor: Steve Franz
Professional Qualifications:

- Math Graduate Courses, Youngstown State University
- Master's, Education, Westminster College
- Bachelor's, Secondary Mathematics Education, Youngstown State University

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Course Description

2625. Statistical Literacy and Critical Reasoning. An introduction to statistics and its applications. Topics include descriptive statistics, experimental design, probability sampling distribution, statistical inference, correlation and regression. Emphasis on applications, critical reasoning, and data analysis using statistical software. Credit will not be given for both STAT 2601 and STAT 2625. Prereq.: At least Mathematics Placement Level 15. 4 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Elementary Statistics with Access (8th Edition)	Allan G. Bluman	

Inclusive Access: This course is part of the Inclusive Access program; you should NOT purchase any course materials as they are part of your course registration. In the event you drop this course from your schedule on or prior to the last day of DROP/ADD period, your account will be fully refunded automatically.

Opt-out: By default, students are opted into the content. If the student decides at that time, they do not want their required course materials to be delivered in this program at the low cost offered, they have the option to OPT-OUT. We highly encourage students not to opt-out. If you choose to opt-out, you will be responsible for obtaining the appropriate course materials/textbook/connect at the full price.

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
10/19	1.1-1.5 2.1-2.4	The Nature of Probability and Statistics Frequency Distributions and Graphs	Module 1
10/26	3.1 - 3.4	Data Description	Module 2
11/2	4.1-4.5 5.1-5.3	Data Description Probability and Counting Rules Discrete Probability Distributions	Module 3 Midterm Exam
11/9	6.1-6.3 7.1-7.4	The Normal Distribution Confidence Intervals and Sample Size	Module 4

11/16	8.1 - 8.3	Hypothesis Testing	Module 5
11/23	8.4 11.2	Hypothesis Testing Chi Square and Analysis of Variance (ANOVA)	Module 6
11/30	10.1-10.2	Correlation and Regression	Module 7 Final Exam

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.