

# STAT 2625 - Statistical Literacy and Critical Reasoning

## Summer 2026 Syllabus, Section A01, CRN 31062,

Credit hours: 4

## Instructor

**Samuel J Shannon**

Professional Qualifications:

Master's, Mathematics, Youngstown State University

Bachelor's, Mathematics, Pennsylvania Western (Clarion) University

Bachelor's, Secondary Education Mathematics, Pennsylvania Western (Clarion) University

Lecturer

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Preferred Contact Method: Email or cell (avoid Blackboard messages)

Communication Expectations:

Students are expected to stay engaged with the Blackboard course as well as their email addresses, as these are platforms where course information is regularly communicated. In the case of potential late or missing work, grade concerns, general questions, etc., communicating is the responsibility of the student.

How to Refer to me:

Sam

## 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 |
|---------|--------------------|------------------------------------------------------------------------------------------|--------------------------|
| 5/11    | 1.1-1.5<br>2.1-2.4 | The Nature of Probability and Statistics<br>Frequency Distributions and Graphs           | Module 1                 |
| 5/18    | 3.1-3.4            | Data Description                                                                         | Module 2                 |
| 5/25    | 4.1-4.5<br>5.1-5.3 | Data Description<br>Probability and Counting Rules<br>Discrete Probability Distributions | Module 3<br>Midterm Exam |
| 6/1     | 6.1-6.3<br>7.1-7.4 | The Normal Distribution<br>Confidence Intervals and Sample Size                          | Module 4                 |
| 6/8     | 8.1-8.3            | Hypothesis Testing                                                                       | Module 5                 |
| 6/15    | 8.4<br>11.2        | Hypothesis Testing<br>Chi Square and Analysis of Variance<br>(ANOVA)                     | Module 6                 |
| 6/22    | 10.1-10.2          | Correlation and Regression                                                               | Module 7<br>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.