

STAT 2625 - Statistical Literacy and Critical Reasoning

Fall 2026 Syllabus, Section 12, CRN 43405,

Credit hours: 4

Instructor

Brian Garcar

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Public Instructor Information

Instructor Title: Brian Garcar

Instructor Professional Qualifications:

Master's, Education, Youngstown State University

Graduate Certificate, Mathematics, Youngstown State University

Master's, Education, Edinboro University

Certificate of Graduate Study, Education, Edinboro University

Bachelor's, Education, Youngstown State University

Instructor Office Location: Virtual

Instructor Office Phone: 330-941-3302

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-Brief, with ALEKS access	Allan Bluman	9781260487510

- 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
8/24	No Readings	Pre-Requisite Practice (Algebra Review)	ALEKS Module 1 ALEKS Time Goal 1
8/31	1.1-1.5 2.1-2.4	The Nature of Probability and Statistics Frequency Distributions and Graphs	ALEKS Module 1 Test ALEKS Module 2 ALEKS Module 2 Quiz ALEKS Time Goal 2
9/7	2.1-2.4 3.1	Frequency Distributions and Graphs Data Description	ALEKS Module 3 Blackboard Assignment 3 ALEKS Time Goal 3
9/14	3.1 3.2-3.4	Data Description	ALEKS Module 4 ALEKS Module 4 Quiz ALEKS Time Goal 4
9/21	3.2-3.4	Data Description Review of Modules 2-5	ALEKS Module 5 Blackboard Assignment 5 ALEKS Catch Up Module ALEKS Time Goal 5 Exam 1
9/28	4.1-4.2 4.3-4.5	Probability and Counting Rules	ALEKS Module 6 ALEKS Module 6 Quiz ALEKS Time Goal 6
10/5	4.3-4.5 5.1-5.3	Probability and Counting Rules Discrete Probability Distributions	ALEKS Module 7 ALEKS Module 7 Quiz ALEKS Module 8 ALEKS Time Goal 7
10/12	6.1-6.3	The Normal Distribution	ALEKS Module 8 Quiz ALEKS Module 9 Blackboard Assignment 9 ALEKS Time Goal 8
10/19	No New Readings	Review of Modules 6-9	ALEKS Catch Up Module ALEKS Time Goal 9 Exam 2
10/26	7.1-7.4	Confidence Intervals and Sample Size	ALEKS Module 10 ALEKS Time Goal 10
11/2	8.1-8.4	Hypothesis Testing	ALEKS Module 10 Quiz ALEKS Time Goal 11
11/9	8.1-8.4 10.1-10.3	Hypothesis Testing Correlation and Regression	ALEKS Module 11 ALEKS Module 11 Quiz ALEKS Time Goal 12
11/16	10.1-10.3 11.1-11.2	Correlation and Regression Chi-Square and Analysis of Variance	ALEKS Module 12 ALEKS Time Goal 13
11/23	11.1-11.2	Chi-Square and Analysis of Variance	ALEKS Module 13 ALEKS Time Goal 14
11/30	No New Readings	Review of Modules 10-13	ALEKS Catch Up Module Exam 3 Research Project ALEKS Pie Progress ALEKS Time Goal 15
12/7	Final Exam	Final Exam (Due 12/10)	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.