



Course Syllabus

General Course Information

Identifying Course Details

MATH 256-02W (CRN 6746)

Course Title

Probability & Statistics I

Term

Fall 2026, full semester

Format

Online Asynchronous

Catalog Description

A first course in elementary statistics and probability. Topics include nature of statistics, organizing data, descriptive measures, correlation and regression, basic probability concepts, probability distributions, confidence intervals, and basics of hypothesis testing.

Credit Hours

3 credit hours

Prerequisites

A student must satisfy one of the following:

- ACT Math score of 21 or higher
- SAT Math score of 530 or higher
- Any College Math with a grade of C or higher

Course Objectives

1. Define key statistical terms such as population, sample, parameter, and statistic.
2. Distinguish between inferential and descriptive statistics.
3. Identify and apply different types of data and data collection methods.
4. Construct and interpret frequency distributions, statistical graphs, and summary measures like mean and standard deviation.

5. Use z-scores, percentiles, and quartiles to describe data distributions.
6. Apply basic probability rules to calculate the likelihood of events and distinguish between discrete and continuous distributions.
7. Explain the Central Limit Theorem and its importance in the normal distribution.
8. Construct and interpret confidence intervals for population proportions, means, and variances.
9. Perform hypothesis tests to evaluate claims about population parameters.
10. Compute and interpret correlation coefficients, apply regression analysis, and differentiate between correlation and causation.

Instructor Information

Instructor Name and Title

Pai Song, Associate Professor of Mathematics

Office Location and Office Hours

Science Hall 202A, MW: 11AM-1PM, F: 11AM-12PM or virtually by appointment

Contact Information

(304)462-6156

pai.song@glennville.edu

Expected Response Time

Usually within 24 hours, except on holidays and weekends.

Other Pertinent Information

Personal Website: paisong.org

Course-Specific Information and Requirements

Course Materials

Required Materials

- Triola, M.F. (2023). *MyLab Statistics for Essential of Statistics (7th edition)*. New York, NY: Pearson Addison-Wesley. ISBN: 9780137466092
- #### *Recommended Materials*

Technical Requirements

To successfully complete this course, students must have access to the following:

- **Computer & Connectivity:** A laptop or desktop computer with a reliable high-speed internet connection and a working webcam. The device must be capable of installing and running **Respondus LockDown Browser**.

- Note for Windows users: Devices running “Windows S Mode” must be switched to a standard version of **Windows 11** to support the browser installation.
- **Calculators:** A TI-30, TI-83, or TI-84 scientific/graphing calculator.
 - **Prohibited Resources:** The use of external online resources, including Desmos or cell phone calculators, is strictly prohibited during all proctored assessments.
- **Scanning Capability:** A smartphone with a mobile scanning app (such as **Adobe Scan**, **Google Drive Scan**) or a dedicated scanner capable of producing clear, legible, multi-page **PDF files**.
- **Software & Access:** Consistent access to **Brightspace** and a **GSU email account**, which must be checked daily for essential course communications.

Course Content and Structure

This traditional in-person course is organized into weekly modules and follows a 16-week semester schedule (including a Thanksgiving Break week and two University holidays with no class). Students are expected to attend every class and actively participate in classroom activities. Class attendance and participation are included as part of the course grade.

Each week, students will cover assigned textbook sections in class, including statistical and critical thinking, data collection, descriptive statistics, probability, probability distributions, normal distributions and sampling, confidence interval estimation, hypothesis testing, and correlation and regression.

Students are expected to review posted lecture materials and textbook sections for each week's topics, complete homework assignments in Pearson MyLab Math, and take weekly quizzes. Quizzes are completed online and proctored using Respondus LockDown Browser with webcam monitoring. There are three unit exams and a comprehensive final exam, spaced throughout the semester as follows:

- **Exam 1** (Chapters 1–3): Week 4
- **Exam 2** (Chapters 4–5): Week 8
- **Exam 3** (Chapters 6–7): Week 12
- **Final Exam** (comprehensive, plus Chapter 10): 12/07/26 – 12/10/26

Students should check Brightspace, Pearson MyLab Math, and their GSU email regularly for course announcements, assignments, due dates, and assessment information.

Weekly Schedule

Full Semester Weekly Schedule

Week	Dates	Course Assignments	Notable GSU Info
1	8/17/26 – 8/21/26	1.1 Statistical and Critical Thinking 1.2 Types of Data 1.3 Collecting Sample Data Quiz 1	8/21/26: Last day to drop classes without a W on the transcript.
2	8/24/26 – 8/28/26	2.1 Frequency Distributions for Organizing and Summarizing Data 2.2 Histograms 2.3 Graphs That Enlighten and Graphs That Deceive 2.4 Scatterplots, Correlation, and Regression Quiz 2	N/A
3	8/31/26 – 9/4/26	3.1 Measures of Center 3.2 Measures of Variation	N/A
4	9/7/26 – 9/11/26	3.3 Measures of Relative Standing Quiz 3 Exam 1	9/7/26: Labor Day. No classes; University closed.
5	9/14/26 – 9/18/26	4.1 Basic Concepts of Probability 4.2 Addition Rule and Multiplication Rule	N/A
6	9/21/26 – 9/25/26	4.3 Complements, Conditional Probability and Bayes' Theorem 4.4 Counting Quiz 4	N/A
7	9/28/26 – 10/2/26	5.1 Probability Distributions 5.2 Binomial Probability Distributions	N/A
8	10/5/26 – 10/9/26	5.3 Poisson Probability Distributions Quiz 5 Exam 2	Midterm Week 10/9/26: Fall Recess. No classes; University open.
9	10/12/26 – 10/16/26	6.1 The Standard Normal Distribution 6.2 Real Applications of Normal Distributions 6.3 Sampling Distributions and Estimators	

Week	Dates	Course Assignments	Notable GSU Info
10	10/19/26 – 10/23/26	6.4 The Central Limit Theorem 6.5 Assessing Normality 6.6 Normal as Approximation to Binomial Quiz 6	N/A
11	10/26/26 – 10/30/26	7.1 Estimating a Population Proportion 7.2 Estimating a Population Mean	10/23/26: Last day to drop classes with a W on the transcript.
12	11/2/26 – 11/6/26	7.3 Estimating a Population Standard Deviation or Variance Quiz 7 Exam 3	N/A
13	11/9/26 – 11/13/26	8.1 Basic of Hypothesis Testing 8.2 Testing a Claim about a Proportion	N/A
14	11/16/26 – 11/20/26	8.3 Testing a Claim about a Mean 8.4 Testing a Claim about a Standard Deviation or Variance Quiz 8	N/A
N/A	11/23/26 – 11/27/26	None	Thanksgiving Break. No classes. University open Monday – Wednesday.
15	11/30/26 – 12/4/26	10.1 Correlation 10.2 Regression Quiz 9	N/A
16	12/7/26 – 12/10/26	Final Exam, 12/07/26-12/10/26	Finals Week

Methods of Evaluation

How Evaluations Impact Course Grade

Method(s) of Evaluation	Percentage or Points Possible
Attendance	10%
Homework	30%

Method(s) of Evaluation	Percentage or Points Possible
Quizzes	20%
Exams	30%
Final Exam	20%
Total	100%

Grading Scale

The following grading scale applies to all graded work in this course, as well as your overall course grade.

Grading Scale

Letter Grade	Percentage
A	90–100
B	80–89
C	70–79
D	60–69
F	0–59

Class Attendance Policy

Attendance is required for all classes. To comply with federal guidelines, students are expected to be present at all class sessions to be eligible for financial aid through Title IV of the Higher Education Act of 1965. It may be necessary for the student to be absent from scheduled classes or laboratories for personal reasons. On such occasions, all matters related to a student's absence are to be arranged between the student and the instructor, including making up missed work. The student is responsible for the academic consequences of any absences.

Occasionally, students may be absent from scheduled classes to participate in officially sanctioned university activities (known as institutional absences). Instructors are obligated to respect institutional absences and may not penalize a student for such an absence if the student makes up any graded work missed due to the absence in a timely manner as determined by the

instructor. An institutional absence does not change deadlines for submitting assignments, but the instructor will allow students to make up exams, quizzes, presentations, or any other course requirements that have an impact on the course grade conducted during the missed class(es). Students are responsible for all coursework missed due to absences and must initiate any request to make up coursework promptly as stipulated by the instructor on their syllabi. The instructor is free to assign alternate, equivalent work for any in-class work a student missed due to an institutional absence. Instructor accommodations may be made prior to or after the institutional absences at the discretion of the instructor. A list of students who are excused during a specific time period will be maintained by the Office of Academic Affairs and circulated to instructors.

In addition, instructors may excuse absences due to extenuating circumstances beyond student control as if they were institutional absences. However, if an instructor chooses to excuse such absences, they must excuse them consistently for all students. Furthermore, at the instructor's discretion, an instructor may require the student to provide documentation of the circumstances leading to the absences and approve or deny the request for an excused absence based on said documentation.

Students and instructors are obligated to adhere to the stated requirements of each course. An instructor's attendance policy may not contradict institutional policy.

Course Policies on Late Work and Make-Up Work

- Students are responsible for completing all work by the posted due dates.
- **Homework and Quizzes:** Homework and quizzes may be submitted late with a **5% penalty per day late**, as long as they remain available in Pearson MyLab Math.
- **Exams and Final Exam:** Module exams and the final exam may not be completed after the due date. Make-up exams will only be considered for serious, documented circumstances. Students must contact the instructor before the deadline whenever possible, or as soon as possible in an emergency.
- Documentation may be required. Late or make-up work is not guaranteed and will be handled on a case-by-case basis.

Academic Integrity

Students are expected to complete all coursework honestly and independently unless collaboration is explicitly permitted. Cheating on quizzes or exams, plagiarism, unauthorized assistance on homework assignments, and disruptive classroom behavior will not be tolerated and will be handled in accordance with the university's Oath of Academic Excellence and academic dishonesty policy.

The use of artificial intelligence (AI) in each Glenville State University course is governed by the individual course syllabus. Use of AI in this course outside acceptable AI use as defined by the course syllabus will constitute academic dishonesty. Faculty use of tools and methods to

detect violations of academic integrity, including but not limited to AI detection tools, is expressly permitted by Glenville State University policy.

Level of AI Use Allowed: BY PERMISSION ONLY

Students must obtain permission from the course instructor prior to using Automated Writing Tools (including but not limited to ChatGPT and other AI tools) for any assignment in this course. The use of AI tools in this course without the instructor's permission violates the university policy on academic dishonesty and will be handled in accordance with that policy.

Distance Learning (Online) Requirements

Overview of Online Course Activities

Each week, students work through posted lecture materials and complete homework and quizzes in Pearson MyLab Math according to the schedule above. Module tests and the final exam are proctored via Respondus LockDown Browser and must be completed within the posted availability window. There is no fixed meeting time; students should plan to spend time on the course several days each week rather than completing all work at once.

Online Communications Guidelines

Students are expected to communicate professionally and respectfully in all course correspondence and to check Brightspace and their GSU email daily. Questions about course content or assignments should be directed to the instructor by email; students can expect a response within the timeframe noted above.

Privacy Policy

Glenville State University complies with the Higher Learning Commission (HLC) policies regarding distance education, including those related to student authentication. Each student enrolled in a distance education course is assigned a secure login and password and must use this to register for and access their distance education courses. Specific course and student information is not available to any outside users.

Technological Information

Brightspace (GSU's Learning Management System)

At a minimum, all GSU courses should use the LMS to provide access to the course syllabus and the course grade book. If you need assistance accessing or navigating Brightspace, please contact the GSU Help Desk at 304-462-6145 between 8:00 a.m. and 4:00 p.m. Eastern (GMT – 4:00) on regular U.S. workdays, when the university is open. You may also [email the Brightspace Help Desk \(Brightspace.Help@glenville.edu\)](mailto:Brightspace.Help@glenville.edu), and someone will reply as soon as possible during normal business hours.

Other Campus Systems

If you need support with university-provided software or systems, such as email, passwords, or EdNet, please call the Office of Technology for support at 304-462-6140 between 8:00 a.m. and 4:00 p.m. Eastern (GMT – 4:00) on regular U.S. workdays, when the university is open.

University-Wide Policies

All university policies are in effect during this course for relevant policy and procedures in the classroom.

ADA Students Statement

It is the policy of Glenville State University to provide reasonable accommodations for qualified individuals with documented disabilities. This University will adhere to all applicable federal, state, and local laws, regulations, and guidelines regarding providing reasonable accommodations for affording equal educational opportunities. It is the student's responsibility to provide documentation of a disability to Pioneer Support, located on the third floor of the Robert F. Kidd Library. You may also [email Pioneer Support \(Pioneer.Support@glenville.edu\)](mailto:Pioneer.Support@glenville.edu). Staff will assist students and faculty in arranging appropriate accommodations. This is in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Other Pertinent Information

Course Evaluations

Course evaluations will be available at the end of the course. Student feedback is important; as such, all students are expected to provide their candid and constructive feedback for all courses taken.

Reserve Clause

The instructor reserves the right to revise, alter, or amend this syllabus as necessary. Students will be notified in writing / e-mail of any such changes. Note also that the duties and obligations of Glenville State University may be modified or suspended immediately and without notice because of causes beyond Glenville's reasonable control and occurring without its fault or negligence including, but not limited to, acts of God, fire, war, governmental action, terrorism, epidemic, pandemic, weather, national emergencies, or other threats to the safety of students, faculty, or staff. Such events may require the university to alter the academic year schedule or provide alternate means of instruction, including distance or remote learning.

Glenville State University Mission

Glenville State University prepares and inspires students to be thoughtful, productive, engaged, and responsible citizens who contribute to the well-being of their community, state, nation, and world.