



GENB 2300 • Business Statistics

Fall 2026 • In-person class • The University of Texas at Tyler

Instructor	Dr. Cecilia Cuellar
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Section	2026-FALL-GENB-2300.002
Course Dates	August 24 – December 12, 2026
Office Hours	COB 325 (By Appointment)
Classroom (Lecture)	COB 203 (ONLY MONDAY)
Computer Lab	COB 251 (ONLY WEDNESDAY)

Course Description

This course introduces students to the principles and applications of business statistics and business analytics. Using real-world data and Microsoft Excel, students will learn descriptive, predictive, and inferential techniques that support business decision-making. Topics include descriptive statistics, data visualization, probability, statistical inference, and linear regression. Emphasis is placed on applying statistical tools in practical business contexts and communicating results in clear business language.

Each module includes short lecture content, Excel-based practice, a quiz or checkpoint, and an applied assignment or case.

Required Materials

Textbook: Business Analytics, 5th Edition — Camm, Cochran, Fry, and Ohlmann. Copyright 2024, Cengage Learning.

Software: Microsoft Excel (desktop version) is required. Enable the Data Analysis ToolPak as needed. UT Tyler students access Microsoft 365 through UT Tyler IT.

Technology: Reliable internet access, Canvas access, and the ability to download, edit, save, and upload Excel files. OneDrive backup is strongly encouraged.

Proctoring: Online proctoring is required for the midterm and final exams. Students must test proctoring technology before each exam window opens.

Course Learning Outcomes

By the end of this course, students will be able to:

1. **Describe** the role of data and statistical reasoning in business decision-making.
2. **Identify** variables, data types, populations, samples, and sources of uncertainty.
3. **Compute and interpret** descriptive statistics, including measures of center, variation, position, and outliers.
4. **Use Excel** to summarize, visualize, and analyze business data.
5. **Apply** probability concepts, expected value, and probability models to business risk decisions.
6. **Construct and interpret** confidence intervals for business data.
7. **Formulate, perform, and interpret** hypothesis tests.
8. **Estimate, evaluate, and interpret** simple linear regression models.
9. **Communicate** statistical findings clearly using tables, charts, Excel output, and short business recommendations.
10. **Evaluate** the limitations of statistical evidence and avoid overclaiming results.

Grading

This course uses a 100% structure.

Category	Percent
Quizzes	15%
Data Analysis Lab (DAL) - Homework	30%
Online Midterm Exam Theory (10%) + Midterm Exam Case (10%)	20%
Final Data-Driven Business Case	15%
Presentation on Final Data-Driven Business Case	20%
Attendance (Extra credits) – if only if you attend to 90% of classes	+5 pts to final grade
Total	100%

Grading Scale

Grade	Percentage Range
A	90.0% – 100%
B	80.0% – 89.9%
C	70.0% – 79.9%
D	60.0% – 69.9%
F	59.9% or below

Note: Final grades will not be rounded or adjusted based only on proximity to cut-points.

Major Assignment Types

Quizzes and Checkpoints (15%)

Individual assignments completed in Canvas to confirm understanding of weekly concepts. Unless stated otherwise, quizzes are open book.

DAL Homework (30%)

Applied assignments where students use Excel to organize data, calculate statistics, create charts, run analyses, and interpret results. Upload to Canvas as .xlsx unless otherwise instructed.

Important: Do not upload temporary files beginning with "~\$". Partial credit is awarded when correct formulas, process, or intermediate steps are clearly visible.

Midterm Exam Theory & Applied Section (20%)

A proctored exam theory and applied case exam covering descriptive statistics, Excel skills, sampling foundations, and statistical inference basics.

Final Data-Driven Business Case (15%)

Students use regression as a decision tool: build a model, evaluate fit, and communicate findings in a clear business memo.

Presentation of Data-Driven Business Case (20%)

A cumulative proctored exam covering all major course topics through an applied business case.

Late Work Policy

Assignments, labs, and quizzes submitted late will be penalized 10% per full or partial day late, up to three days after the due date. Submissions are disabled after the third day.

Late exams are not accepted except for documented emergencies approved by the instructor. Make-up exams must be completed within one week of the original date.

Data Besties

To promote collaboration, teamwork, and critical thinking, students will be randomly paired with a Data Bestie at the beginning of the semester. Your Data Bestie will be your partner throughout the course, including for homework labs, the applied sections of exams, and the Final Data-Driven Business Case and presentation.

Because you will be working together throughout the semester, communication and shared responsibility are very important. If you experience any issue with your Data Bestie, please let me know as soon as possible rather than waiting until the end of an assignment.

Although most Data Bestie assignments will receive a shared grade, I reserve the right to assign individual grades when there is evidence that one partner did not contribute fairly to the work.

Artificial Intelligence Policy

AI is here, and learning how to use it effectively is becoming an important skill in school and in the workplace. In this course, you are encouraged to explore tools such as ChatGPT, Claude, Copilot, and other AI platforms as learning assistants.

You may use AI to brainstorm, ask questions, clarify statistical concepts, troubleshoot, improve your writing, or help you understand your work. However, AI should help you think, not do the thinking for you. You are responsible for understanding what you submit and for checking that any AI-generated information, calculations, or interpretations are correct.

For exams and designated applied assessment sections, AI assistance is not permitted. These activities are designed to assess your own ability to apply the statistical tools and concepts we practice in class. Specific instructions will always be provided.

When AI is used for an assignment, be transparent about it when requested and follow any specific instructions provided for that activity.

Finally, protect your data. Do not upload private or confidential information, protected data, exam materials, or restricted course content to an AI platform.

Bottom line: Use AI to learn, explore, and become more efficient, but make sure you are still the one learning statistics.

Academic Integrity

All work must comply with UT Tyler standards for academic honesty. Students must complete individual work independently and must not share exam files, answer keys, quiz answers, or completed assignment files with others.

Student Resources and University Policies

University policies and student resources are maintained in the UT Tyler Canvas Syllabus Module and apply to this course. Students should review those pages for:

- Accessibility accommodations and disability services (SAR Office)
- Withdrawing from class, grade appeals, and incomplete grades
- Academic integrity and the Student Code of Conduct
- Final exam policy
- Military and veteran support services (MVSC)
- International student requirements (Office of International Programs)
- Title IX and campus safety resources



Tentative Course Calendar — Fall 2026

The instructor reserves the right to adjust the outline, assignments, due dates, and any aspect of this syllabus. All changes will be announced in Canvas.

Wk	Dates	Topic	Major Work
01	Aug 24–28	Orientation and Descriptive Statistics I	Quiz 1 / No DAL Homework
02	Aug 31– Sep 4	Descriptive Statistics II	Quiz 2/ DAL HW1
03	Sep 7–11	Excel Data Skills and Sampling Bridge	Quiz 3; Excel/data cleaning lab
04	Sep 14–18	Statistical Inference I	Quiz 4; confidence interval lab
05	Sep 21–25	Midterm Exam and Review ★	Practice review; PROCTORED midterm exam, and applied midterm (Excel)
06	Sep 28–Oct 2	Statistical Inference II	Hypothesis testing lab; DAL HW2
07	Oct 5–9	Linear Regression I	Regression quiz and setup lab
08	Oct 12–16	Linear Regression II	Regression diagnostics lab; DAL HW3
09	Oct 19–23	Linear Regression III • Business Case	Regression business case memo
10	Oct 26–30	Probability and Risk Models	Probability quiz, lab, and DAL HW4
11	Nov 2–6	Data Visualization and Dashboard Communication	Visualization quiz, lab, DAL HW5, and visual memo
12	Nov 9–13	Week of Preparation for presentations	
13	Nov 16-20	Presentations	
14	Nov 23-27	Thanksgiving Week	
15	Nov 30-Dec 4	Review and Submit your Final Business Case	
16	Dec 7-11	Final Grades posted	

★ **Highlighted rows** indicate proctored exam weeks. Exact exam availability windows and technical requirements will be posted in Canvas.