

**The Ohio State University
Department of Economics
ECON 3400: The Analysis and Display of Data
Fall 2024**

Instructor: Robert (Bobby) Daniel

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Lectures: Wednesdays and Fridays, 11:10AM-12:30PM, Arps Hall 388

Office Hours:

Thursdays, 2:00PM-4:00PM on Zoom/In person in Arps 371 or by appointment.

Zoom Link:

<https://osu.zoom.us/j/98292164931?pwd=74YFf7YAkVkLUzUzMxuLdfAFsdlv9K.1>

Password: metrics

Course Description: This course serves as an introduction to the economic analysis of data, drawing on statistical principles and economic theory used to interpret data from an economic perspective. Topics include sampling, data collection, probability, inference, random variables, display of data and analysis of variance. Emphasis on economic applications. This course does not count toward a course elective for Economics majors.

Textbook: Introduction to Statistics and Data Analysis by Roxy Peck and Chris Olsen. The 2025 (7th) edition. ISBN-13: 9798214000008. (The ebook version on Cengage should be about 60 dollars; I do not think it is in physical print yet, but the 2019 version is)

Note: While I will mainly be using the above textbook, but some additional background/further details for some topics as well as some examples will come from Casella and Berger's "Statistical Inference". Do **NOT** buy this book as it is too advanced for this class in general.

Grading:

a) **Breakdown:** Weekly Quizzes (15%), Homework (15%), Midterms (50%), Final Paper (20%). Each week (except for weeks immediately following an exam and the first week), at the start of the Wednesday class, there will be a simple, 5-minute quiz checking your understanding of the previous week's material. I will drop the two lowest quizzes. There will be approximately 4 homework assignments throughout the semester. There will be 2 midterms, each weighted equally. The final paper will be discussed in detail in class as we move to the second half of the course.

b) **Policy:** If you believe that there is an error in the grading of any assignment, you have one week from receiving your grade to submit an email concerning why you believe your grade is erroneous. I will then review your assignment and adjust your grade as needed. No adjustments will be made after one week.

Rounding: No rounding will take place except when calculating your final course grade. This will be done by rounding up to the nearest whole number, e.g., 92.14% will round to 93%. No further rounding will take place.

Late assignments: Assignments will be due at the start of class. Assignments submitted after the deadline will be subject to a 10% deduction with a further 10% deduction for each additional day it is late. No assignments will be accepted after solutions have been posted.

Extra Credit: No extra credit or bonus points will be offered.

Email: I receive many emails and as such will respond to your emails *within 2 business days*. All emails that are sent to me should have "Econ 3400" somewhere in the subject line, and they should be clear and concise. Questions regarding anything directly answered in the syllabus will be ignored.

When writing emails please remember to conduct yourself professionally. Ask yourself if what you are writing would be appropriate to send to a boss or colleague before clicking send.

Tentative Dates:

- a) Homework: I will not set specific dates to give flexibility for the covering of material. However, students will be given at least one week from the assigning of the homework till its due date.
- b) Midterms: October 4th and November 15th
- c) The Final Paper is due on the last day of regularly scheduled class, December 4th.

New General Education: Mathematical and Quantitative Reasoning

Goals:

1. Successful students will be able to apply quantitative or logical reasoning and/or mathematical/statistical methods to understand and solve problems and will be able to communicate their results.

Expected Learning Outcomes:

Successful students are able to:

- 1.1. Use logical, mathematical, and/or statistical concepts and methods to represent real-world situations.
- 1.2. Use diverse logical, mathematical, and/or statistical approaches, technologies, and tools to communicate about data symbolically, visually, numerically, and verbally.
- 1.3 Draw appropriate inferences from data based on quantitative analysis and/or logical reasoning.
- 1.4. Make and evaluate important assumptions in estimation, modeling, and logical augmentation and/or data analysis.
- 1.5. Evaluate social and ethical implications in mathematical and quantitative reasoning.

Economics 3400 will achieve these goals through the use of basic statistics such as simple regression, test statistics, and the construction and analysis of graphs and charts on excel. Real world economic data from the federal reserve website and other sources will be used to allow students to make conclusions about events in the world around them. Attention will be given to

the appropriate use of statistics and how statistics have been used improperly to lie or mislead others.

Academic Integrity: Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's Code of Student Conduct, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute "Academic Misconduct." The Ohio State University's Code of Student Conduct (Section 3335–23–04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an "excuse" for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct. If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct.

If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Disability Services: The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a

timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098
Baker Hall, 113 W. 12th Avenue.