Accounting / 6001
Accounting Data and Analytics
Autumn 2025 Term I

THE OHIO STATE UNIVERSITY

Instructor:

Name: John Draper
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Office Hours: TBA
Visit my Bookings page to make an appointment

Class Meeting Schedule:

MWF, 8:00-9:30 AM -- 375 Gerlach Hall

Course Materials / Software:

Required:

- www.moderndive.com (free)
- Software: Excel, R, RStudio

Reference

- Introduction to Data Science, Rafael Irizarry (free)

Course Description:

This course is the introduction to statistical thinking and analytic techniques that pervade the entirety of the accounting (and business) world. Students will learn how to work with data, formulate questions, and most importantly, learn comprehensive problem solving techniques to extract and explain pertinent information from data.

Course Learning Outcomes:

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

- Discuss and apply the basic process of data science and business analytics from problem formulation to final conclusion in accounting applications.
- Demonstrate fluency in the language of statistics and data as both a consumer and producer of statistical information and data analysis.
- Discover the power of data visualization and statistical modelling in the R programming language.

How This Course Works:

Mode of delivery: This course is designated as an in-person course. Students are expected to attend every assigned in-person class. If missing a class is a necessity due to external obligations or illness, please inform the professor prior to the scheduled class. **IT IS ESSENTIAL** that students keep up with the pace of the class as catching up is more difficult than keeping up. Taking days off carries grave consequences for success.

Credit hours and work expectations: This is a **2.5-credit-hour course delivered in 7 weeks (1/2 semester)**. According to Ohio State policy, students should expect around an average of 4.5 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 9 hours of homework (reading and assignment preparation, for example).

Grading and Evaluation:

Graded assignments may come in three forms, and students should note the expectations for each in the descriptions of our class assignments below.

- **Independent Work ( ):** Strictly non-collaborative, original-individual work. You may discuss this assignment only with your instructor. Discussions with other individuals, either in person or electronically, are strictly prohibited.
- **Collaboration Required ( ):** An explicit expectation for collaboration among students either in-class or outside (i.e. group work).
- **Optional-Collaboration ( ):** Students are permitted, but not required, to discuss the assignment or ideas with each other. However, all submitted work must be one's original and individual creation.

Assignment Name	Points / Weight	Assignment Type
In-class activities/Participation	10	
Weekly Homework	10	
2 Check-in 'Cases'	30	
Midterm Exam	20	
Final Exam	30	
Datacamp (Extra Credit)	+5	
TOTAL COURSE POINTS	100	

Course Assignments:

Datacamp Assignments (OPTIONAL)

"This class is supported by Datacamp the most intuitive learning platform for data science. Learn R, Python and SQL the way you learn best through a combination of short expert videos and hands-on-the-keyboard exercises. Take over 100+ courses by expert instructors on topics such as importing data, data visualization or machine learning and learn faster through immediate and personalised feedback on every exercise."

Each week, there will be a course (or portion of a course) within datacamp assigned. The recommended pace for the courses can be found on the course schedule, but they can be completed any time by the end of the term. While datacamp is a 'pay' site, they offer free access for academic use. Please create a free datacamp account using your name.number@osu.edu email address and follow this link to join the class. The completion of the datacamp assignments will be worth up to 5% extra credit on your final grade.

Weekly Homework

The best way to learn, it to "do". Practice is the name of the game in analytics classes so these are the best way to learn and internalize the information. The homeworks will be in the form of Carmen quizzes. . These "quizzes" will be untimed, open material, and collaboration (not copying) is *encouraged*. You will have 10 attempts to get the questions correct. I have found this to be an effective way for busy individuals to carve out some time to practice applying the information. You are permitted to consult with other members of the class but strongly advised to NOT divide and conquer. These problem sets can include multiple choice, true/false, numeric answers, and potentially small image uploads.

Check-in Group "Cases"
While the optimal evaluation method for a statistics course is written projects, there are simply too many students to perform individual projects effectively. Students will complete these case style assignments in teams of four students randomly assigned by the instructor. These cases will involve more realistic data analysis from problem definition to analysis to conclusion via a prompt from the professor.

In-class Activities/Discussion
Over the course of the semester, discussion and participation are encouraged. To this end, classroom participation will be passively monitored. In addition, there will be two days (9/12 and 10/13) in which we will perform some analysis (in groups) and have short report-outs at the end of class (half each time). These days weigh heavily (but not exclusively) on this grade component. If you are not able to make one of these classes, you need to inform your instructor in advance.

Exams
The midterm will be administered during class on 9/22, and the final will take place on either 10/12 or 10/13 (TBA). The exams must be completed in 1.5 hours. The format will be multiple choice, true/false, and numeric answers. The exams will be open-note and open-book, but it is to be completed without collaboration and without the use of Google or generative AI. While the final exam will be cumulative (the material builds on the early foundations), it will be much more heavily focused on the second half of the course. Exams will be hosted on Carmen (in the classroom) with the honorlock proctoring software.

Course Schedule: Found on Carmen

Late Assignment Submissions:
A late penalty of 50% will be levied on all assignments every day until the credit is gone. Assignments received after the 11:59 deadline immediately receive the late deduction for 1 day.

Instructor Feedback and Response Expectations:
- Emails will receive a response within 1 business day. Most responses will be significantly quicker.
- Graded assignments will be returned within 2 weeks of the due date.

Disability Services:
The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. 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.

Use of Artificial Intelligence (AI) and Academic Integrity*:*

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, CoPilot, Gemini, and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Specifically, students are not to use unauthorized assistance on course assignments unless such assistance has been authorized specifically by the course instructors. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

AI literacy requires knowing enough about how AI works to be able to use it effectively. One of the course goals is to help you learn to write and communicate effectively, which will require practice. While you most likely will be expected to use AI to increase the speed at which you can produce, you still need to create, edit and recognize high-quality writing yourself. If AI can do the work without you, you will not have employable skills.

To that end, while you can use AI to assist you in creating ideas, outlines, themes, and arguments, the final product must be your own. Use AI as a collaborator or tutor: ask for feedback or ways to improve. You are required to keep and submit your prompts and/or supply a pdf of the session transcript if asked.

For transparency, I will generate an "AI answer" answer by submitting the assignment with the assignment requirements to an AI model; your work is expected to exceed surpass this baseline level.

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.

Integrity and Assignment Acknowledgements:

In all professions, integrity and transparency are essential. Taking credit for others' work undermines trust, while acknowledging collaboration and tools used reflects professionalism and strengthens your reputation.

For this course, you are expected to clearly disclose any assistance you received on assignments—including help from classmates other than your group members, use of AI tools, or other resources. This practice aligns with professional standards and helps us engage thoughtfully with emerging technologies.

Grievances and Solving Problems:

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, associate dean for programs in the college, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-7-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.