

Stat 6750: Statistical Consulting and Collaboration

Autumn 2023 (24270), Cockins Hall 312

Course Overview

Instructor Information

Instructor: Thomas Metzger, PhD

Email: metzger.181@osu.edu; **please do not use my Buckeyemail address**, because my Buckeyemail address from my undergraduate time at OSU is not FERPA compliant. Additionally, messages sent through Carmen often go into my spam folder; for fastest communication, use **metzger.181@osu.edu**.

Office hours/Student hours: Virtual or in-person meetings, Mondays/Wednesdays 9:05 am - 10:05 am

Grader/TA: Ms. Wenxin Du, du.888@osu.edu (Math Tower 450)

Course Delivery

This course meets Mondays and Wednesdays in Cockins 312 from 8:00 am - 8:55 am. If it is safe and healthy for you to do so, attendance is mandatory. Attendance will be taken daily. Each class will be labeled with a week number and a letter, “A” (Monday class) or “B” (Wednesday class). For example, the Wednesday class of week 3 will be Class 3B. This course is 2 credit hours and the course is graded S/U.

The purpose of office hours/student hours is to provide supplemental time for questions, discussion, or assistance that you may need. Any topics related to the course, or to college life, professional development, or person. A Zoom link can be found on Carmen for virtual meetings. Attendance is always optional but you are welcome to attend as frequently as you would like.

Course Description

Role of the statistician as both consultant and collaborator; enhancement of analytical and communication skills; structuring working engagements; introduction to consulting-specific technical skills; experience working on consulting projects. Prereq: 6450 (645) or 6950, or permission of instructor. Not open to students with credit for 600 or 601. This course is graded S/U.

Course Learning Outcomes

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

- Plan, hold, and evaluate effective meetings with clients and domain experts
- Effectively and convey statistical and technical topics in accessible format and language in words and writing
- Use peer evaluation, feedback, and video analysis to improve communication and collaboration skills
- Work effectively and respectfully as a team across different domains of technical expertise
- Create professional technical reports to convey findings to stakeholders
- Conduct, interpret, and report statistical analyses using software
- Design and create effective visualizations to convey results and findings

Materials

Text

Reading materials will be posted to Carmen.

Software

- Please bring a laptop every day. If you do not have one, please let me know ahead of time so we can find an alternative.
- Required software: students may use the approved statistical software package of their liking to conduct analyses. I recommend JMP (“Jump”), which is available free to students here: <https://it.osu.edu/software>. Whatever platform you choose, you must provide reproducible, technically accurate, scientifically relevant analyses and reports based on the output and your findings.
- Required software: Microsoft Office 365 ProPlus. All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft’s Student Advantage program. Each student can install Office on five PCs or Macs, five tablets (Windows, iPad® and Android™) and five phones. Students are able to access Word, Excel, PowerPoint, Outlook and other programs, depending on platform. Users will also receive 1 TB of OneDrive for Business storage. Office 365 is installed within your BuckeyeMail account. Full instructions for downloading and installation can be found <https://ocio.osu.edu/kb04733>.

Grades and Assignments

Stat 6750 is a graded as Satisfactory/Unsatisfactory (S/U). To receive a Satisfactory grade for the course overall, you must earn an S in all of the following grade categories: 1) Attendance; 2) Readings and Written Reflections; 3) Project 1, and 4) Project 2.

1) Attendance and Participation

8:00 am is nobody’s first choice, but this is the situation in which we find ourselves. Strict attendance will be taken daily. To be counted as present, you must be in your seat and ready to learn when class begins at 8:00 am. Absences will be considered as excused on a case-by-case basis. Documentation such as doctor’s notes or a note from your advisor may strengthen your case. Students with two or more unexcused absences will receive a grade of U. Absences without advance communication before class, or within will not be excused. All absences must be communicated to any team members as well.

Two unexcused tardies will be counted as an unexcused absence. All students will receive one free tardy, for emergencies.

Participation grades will be given weekly. To receive a grade of S, Students who are physically present but not mentally present, such as by sleeping, working on their laptop, or browsing their phones, will receive a U. Phones should be kept away. Laptops should only be used during coding or presentation activities. Similarly, students who are not respectful during others’ presentations, such as by being inattentive or distracted, will receive a U. Regular engagement and participation in discussion is expected.

Please review all of Ohio State’s COVID guidelines here: <https://safeandhealthy.osu.edu/tracing-isolation-quarantine>. If you cannot attend due to illness, contact tracing, or another reasonable health-related reason, please let me know in advance and follow all of Ohio State’s guidelines on health and safety. Documentation is required for all health-related absences.

2) Readings and Written Reflections

Reading assignments and written reflections will be frequently posted to Carmen. Often, class discussions will center around these readings, so it is imperative that you are present and prepared to contribute during class. These reflections should represent the individual experiences and perspectives of your field and your work, as well as the content of the reading text. For each individual assignment, a grade of S will require the following:

- A professional, thorough written reflection that adheres to the provided guidelines on length, content, and timeliness
- Prepared, coherent, respectful contribution in class discussions as necessary

To receive an overall grade of S in this category requires that no more than one such assignment can receive an Unsatisfactory grade throughout the semester.

3) Project 1

Our first project will be completed individually. This will involve a data analysis summarized in written, visual, and oral formats. For your individual project, a grade of S will require the following:

- A professional, thorough written report that adheres to the provided guidelines on length, content, and timeliness
- A professional, thorough presentation that adheres to the provided guidelines on length, content, and timeliness
- Professional, appropriate, relevant data visualizations that contribute to the overall findings of your analysis

4) Project 2

The final project will be completed in pairs or in a small group (TBD). This will involve a data analysis summarized in written, visual, and oral formats, as well as consulting meetings with clients. For your final project, a grade of S will require the following:

- Professional respectful work and interactions with your group members and with the clients
- Professional, productive, consulting meetings with the clients that adhere to the guidelines and structure discussed in class
- A professional, thorough written report that adheres to the provided guidelines on length, content, and timeliness
- A professional, thorough presentation that adheres to the provided guidelines on length, content, and timeliness
- Professional, appropriate, relevant data visualizations that contribute to the overall findings of your analysis

Academic Integrity

I take academic integrity very seriously. There is no place at The Ohio State University for academic misconduct, and I have submitted many students in the past for violations including copying other students' work and receiving unauthorized assistance on exams.

- Lecture assignments: during class, you are encouraged to collaborate with other students in small groups if you are comfortable doing so, but ultimately the work you submit must be your own. Directly copying another student's work is not permitted.
- Labs: You are encouraged to collaborate on lab assignments, but ultimately the work you submit must be your own. Directly copying another student's code, work, or file is not permitted.
- Reusing past work: In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- Falsifying research or results: All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- Collaboration and informal peer-review: The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on an exam is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

Health, Safety, and Accommodations

COVID Information

The Ohio State University Wexner Medical Center’s Coronavirus Outbreak site (<https://wexnermedical.osu.edu/features/coronavirus>) includes the latest information about COVID-19 as well as guidance for students, faculty and staff. Be sure to review policies for students that can be found here: <https://safeandhealthy.osu.edu/current-students>.

Your physical attendance and participation in class is expected every day that it is safe for you to do so. In the event you are unable to attend class for an extended period of time, please reach out to me as soon as possible. If it is reasonable for you to continue participating remotely, all materials will remain accessible for you. In the event I am unable to participate for an extended period of time, I will let students know as soon as possible. A replacement instructor will be available through the Department of Statistics.

Title IX Policy

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu.

Student Services and Accessibility Accommodations for Students with Disabilities

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.

If you have accommodations, it is your responsibility to communicate these with me in a timely and efficient manner.

Student academic services: <http://advising.osu.edu/welcome.shtml>

Student support services: <http://ssc.osu.edu>

Diversity and Inclusion

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity,

understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.

Disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

This syllabus should be taken as a fairly reliable guide for the course content. However, you cannot claim any rights from it and in particular we reserve the right to change due dates or the methods of grading and/or assessment if necessary. Any changes will be communicated to you through official course announcements.