

STAT:6220. Consulting and Communication with Data Spring, 2025

1 General Information

Instructor:	Dr. Aixin Tan, aixin-tan@uiowa.edu, 259 SH.
Course Format:	By default, the course meets in person, 10:30–11:20am MWF 60 SH. However, on days when we are introduced to a client, we might meet on Zoom. (You are always free to use the classroom during class time, even for zoom meetings.)
Instructor Office Hours:	MW 2 – 3 pm Make additional appointments if needed.
Course page:	Announcements and course materials will be posted in ICON.
Course Wiki page:	Updates to progress on projects. Link to be announced in ICON.
Department:	Statistics and Actuarial Science, 241 SH
DEO:	Dr. Kung-Sik Chan, 335-0712 kung-sik-chan@uiowa.edu

2 Course Description

One goal of this course is to help you build experience communicating with a variety of people, including clients, teammates, managers, interviewers, researchers from other fields, and general audiences such as K-12 students.

Another goal is to give you some hands-on experience using data mining and statistical methods as consultants. You'll work with clients from another discipline to analyze their data. In lieu of real-time client work, case studies may also be utilized.

Additionally, students should gain knowledge of ethical practices (e.g. for human-subjects-related research).

Resources. There is no required textbook. A few reference books are listed below. We may also read some journal articles which will be available in ICON.

- The Elements of Data Analytic Style — A guide for people who want to analyze data by Jeff Leek.
- Communicating with Data: The Art of Writing for Data Science (1st Edition) by Deborah Nolan and Sara Stoudt (accessible through www.lib.uiowa.edu).

Additional Resources. The UIowa Writing Center as well as the Rhetoric Speaking Center and Conversation Center are excellent resources.

3 Coursework and Grading

3.1 In-class activities and attendance

Significant amount of class time will be dedicated to student presentations, discussions, and reviewing and providing feedback on each other's work. When working with clients, activities will

include initial meetings, progress reports, receiving feedback, offering feedback to other groups, brainstorming sessions, and delivering final reports. Additionally, there will be times when you are assigned a topic and a hypothetical audience to create a tailored communication session. For example, you might teach your product manager the basics of causal inference and A/B testing, talk about your past projects and challenges in a mock job interview, or introduce your field of expertise to a group of high school students.

You are expected to attend class regularly and actively participate in in-class activities. Attendance will be taken frequently. If you need to miss a class—especially one involving client work—please notify me in advance so we can discuss options for making up the absence.

3.2 Assignments

There will be small assignments in the course that will be turned-in. The topic and structure (as well as the timing) will depend on our class-client involvement. Some possible assignments: perform an analysis on a data set and provide a report/write-up as you would give to a client, read a journal article on a new type of analysis and share your findings with the class, or respond in writing to a statistical question asked by a non-statistical client. One known assignment will be to get certified in human subjects protections (<http://hso.research.uiowa.edu>).

3.3 Client Work

You will be spending time on very individualized projects related to client work with individuals from around the University or the local community. You will likely work in groups on these projects. I will attend some client meetings, but most likely not all of them. Presently, I have a limited number of clients available for our course. **If you are aware of any potential clients, please let me know.**

We may often begin class with a check-in, where members of each project team describe the current status of their projects. After check-in, we may spend the remaining time discussing certain client projects in depth, or discussing ‘hypothetical’ client projects or issues. The number of projects any one student is assigned to or completes depends on the complexity of the projects and the number of clients available. Note that in addition to working on projects for which you serve as the primary consultant, learning from other students’ projects is important to broaden your scope and gain valuable experience.

I expect students to present their analyses of client work in class. If the client is available, I would also like them to come to class during the presentation. These presentations will probably be followed by questions or discussion.

I expect students to not leave any clients hanging at the end of the semester. If a project is not complete, you can at least provide a preliminary report to your client as a place for them from which to continue. Please be professional: be on-time, be clear, be courteous, etc.

3.4 Grading

Grading is S/U. You will receive a grade of S = satisfactory if you attend 85% of the classes, attain 70% or higher on Assignments, and attain 80% or higher on Client work.

Academic Honesty and Misconduct

All students in CLAS courses are expected to abide by the [CLAS Code of Academic Honesty](#). Undergraduate academic misconduct must be reported by instructors to CLAS according to [these procedures](#). Graduate academic misconduct must be reported to the Graduate College according to Section F of the [Graduate College Manual](#).

Student Complaints

Students with a complaint about a grade or a related matter should first discuss the situation with the instructor and/or the course supervisor (if applicable), and finally with the Director or Chair of the school, department, or program offering the course.

Undergraduate students should contact [CLAS Undergraduate Programs](#) for support when the matter is not resolved at the previous level. Graduate students should contact the CLAS [Associate Dean for Graduate Education and Outreach and Engagement](#) when additional support is needed.

Drop Deadline for this Course

You may drop an individual course before the deadline; after this deadline you will need collegiate approval. You can look up the [drop deadline for this course](#) here. When you drop a course, a “W” will appear on your transcript. The mark of “W” is a neutral mark that does not affect your GPA. Directions for adding or dropping a course and other registration changes can be found on the [Registrar's website](#). Undergraduate students can find policies on dropping CLAS courses [here](#). Graduate students should adhere to the [academic deadlines](#) and policies set by the Graduate College.

Date and Time of the Final Exam

The [final examination date and time](#) will be announced by the Registrar generally by the fifth week of classes and it will be announced on the course ICON site once it is known. **Do not plan your end of the semester travel plans until the final exam schedule is made public. It is your responsibility to know the date, time, and place of the final exam.** According to Registrar's final exam policy, students **have a maximum of two weeks after the announced final exam schedule** to request a change if an exam conflict exists or if a student has more than two exams in one day (see the [policy](#) here).

Attendance and Absences

Students with UI-authorized activities must discuss their absences with the instructor as soon as possible. Religious obligations must be communicated within the first three weeks of classes.

Communication: UI Email

Students are responsible for all official correspondences sent to their UI email address (uiowa.edu) and must use this address for any communication with instructors or staff in the UI community. For the privacy and the protection of student records, UI faculty and staff can only correspond with UI email addresses.

Mental Health Resources and Student Support

Students are encouraged to be mindful of their mental health and seek help as a preventive measure or if feeling overwhelmed and/or struggling to meet course expectations. Students are encouraged to talk to their instructor for assistance with specific class-related concerns. For additional support and counseling, students are encouraged to contact University Counseling Service (UCS). Information about UCS, including resources and how to schedule an appointment, can be found at counseling.uiowa.edu. Find out more about UI mental health services at mentalhealth.uiowa.edu.

[Student Care and Assistance](#) provides assistance to University of Iowa students who are experiencing a variety of crisis and emergency situations, including but not limited to medical issues, family emergencies, unexpected challenges, and sourcing basic needs such as food and shelter. More information on the resources related to basic needs can be found at basicneeds.uiowa.edu/resources/. Students are encouraged to contact Student Care & Assistance in the Office of the Dean of Students (Room 135 IMU, dos-assistance@uiowa.edu, or 319-335-1162) for support and assistance with resources.

University Policies

Accommodations for Students with Disabilities

The University is committed to providing an educational experience that is accessible to all. If a student has a diagnosed disability or other disabling condition that may impact the student's ability to complete the course requirements as stated in the syllabus, the student may seek accommodations through [Student Disability Services](#) (SDS). SDS is responsible for making Letters of Accommodation (LOA) available. **The student must provide an LOA to the instructor as early in the semester as possible, but requests not made at least two weeks prior to the scheduled activity for which an accommodation is sought may not be accommodated.** The LOA will specify what reasonable course accommodations the student is eligible for and those the instructor should provide. Additional information can be found on the [SDS website](#).

Free Speech and Expression

Absences for Religious Holy Days

Classroom Expectations

Non-discrimination

Sexual Harassment/Misconduct and Supportive Measures

Sharing of Class Recordings (if appropriate)