

Applied Quantitative Methods in Public Policy

Syllabus for a graduate-level course meeting online, Fall 2023

Course: PUBPL/PADMN 6290-091, Master of Public Policy (MPP) program, University of Utah

Instructor: Levi Pace, PhD (he, him; goes by Levi and professor)

Titles: Adjunct Professor, MPP program; Senior Research Economist, Kem C. Gardner Policy Institute

Contact: Canvas messaging (usually preferred over email) or levi.pace@utah.edu;
video call or phone conversation 801-587-9890 also welcome

Virtual Office Hours: By appointment and Wednesdays 6:30 to 7:30 PM (see [Virtual Office Hours](#) page)

Instructor Discussion of Syllabus: Video on the Canvas [syllabus page](#) for this course

Course Description

This applied statistics course covers analytical methods to inform public policy. We use data and software for policy and management questions. Topics include descriptive statistics, hypothesis testing, inference based on a sample, associations between categorical and/or interval variables, and visualization of data and results. A few of the methods we practice are t tests, chi square tests, and regressions. We discuss how to select suitable analysis methods and emphasize effectively communicating findings with stakeholders. Examples in videos and assignments are relevant to the purposes of government and nonprofit institutions. Guest speakers from the policy community address quantitative and career issues. The course is designed to develop individuals professionally within a vibrant and respectful learning community (see [Master of Public Policy program mission](#)).

From the university's course catalog, [Applied Quantitative Methods in Public Policy](#) "involves the analysis of quantitative data, the application of statistics for understanding and conducting public policy research and the use of statistical software. Specific topics include descriptive statistics for discrete and continuous variables, probability theory, hypothesis testing, bivariate associations, ordinary least squares regression and logistic regression. Emphasis is on interpretation of findings."

Course Outcomes

Upon completion of this course, students will be able to...

- discuss what is being measured in context when obtaining and reviewing data;
- use Excel and SPSS to generate descriptive statistics, manipulate tables, create graphs, conduct hypothesis tests, and run regressions;
- interpret and apply quantitative results in a range of government and nonprofit situations;
- select and employ analysis methods that serve policy and management objectives;
- create new connections to local nonprofit and government communities and issues; and
- become self-aware of their own quantitative skills, will feel more comfortable with data analysis, and will communicate visually, verbally, and textually about data.

Required Materials

Materials on Canvas website for registered students: <https://utah.instructure.com/courses/891047>

Spreadsheet and statistics software to complete assignments: Course materials are designed for IBM SPSS and Microsoft Excel. [This Canvas page](#) addresses free student licenses for both programs.

Optional Materials

The instructor recorded two and a half hours of video with guests for this course. Segments are spread across most of the modules. Discussion prompts may refer to some of these.

- Meet our seven recurring guests (3 parts, 24 min total)
- Policy process (9 min)
- Career purpose (10 min)
- Grad school (3 parts, 26 min total)
- Types of data (11 min)
- Analysis at your workplace (3 parts, 25 min total)
- Learning on the job (2 parts, 13 min)
- Valuable quantitative skills (3 parts, 22 min)
- Work-life balance (2 parts, 9 min)
- Longer conversations with two one-time guests (2 clips, almost 30 min each)

This course is not based on a required textbook. The instructor presents concepts and demonstrates analysis methods reinforced by assignments with feedback. Students who prefer reading can find helpful online material and published texts. I recommend two books I've learned a lot from.

- *Applied Statistics for Public and Nonprofit Administration* by Kenneth J. Meier, Jeffrey L. Brudney, and John Bohte, 9th ed. by Cengage Learning, 2015, ISBN: 978-1285737232
- *Elementary Statistics in Social Research* by Jack Levin, James Fox, and David Forde, 12th ed. by Pearson, 2017, ISBN: 978-0134427768

This is optional reading for students who want to go into more depth on a topic they need for a project or just general interest. I've cross-referenced our lessons on Canvas with the text in [this pdf](#). Students are welcome to ask the instructor for page scans on a topic. Another option for at least the first text is to rent them for the semester for perhaps \$42 (e.g., see [Applied Statistics...](#)) or buy an eTextbook for perhaps \$75 ([Elementary Statistics...](#)).

Students have many ways of learning how to conduct socially aware quantitative analysis. Methodology, context, and communications matter. With regards to racism and other inequities, a Canvas page for this course centers voices from communities of color and historically marginalized groups: [diversity, equity, and inclusion resources for public policy and administration](#). Students may find in this curated media content various perspectives on issues where data can inform social and individual progress.

Evaluation

Students' semester grades will rely on the weights in the table for six learning activity categories. Participation refers to Canvas discussions and self-assessments. The number of assignments of each type is in parentheses. The numerical scale below represents how students earn letter grades, which the registrar posts within two weeks of the end of finals week.

Category	Weight
Proposals (2)	10%
Projects (2)	25%
Practice Sets (11)	15%
Quizzes (10)	20%
Exams (2)	20%
Participation (9)	10%
Course Total	100%

Grading Scale		
A	93.0%–100%	(outstanding)
A-	90.0%–92.9%	(very good)
B+	87.0%–89.9%	(good)
B	83.0%–86.9%	(acceptable)
B-	80.0%–82.9%	(marginal)
C+	77.0%–79.9%	(below standard)
C	73.0%–76.9%	(below standard)
C-	0.00%–72.9%	(fail)

Late Work

The schedule this semester is intended to keep the class together for each module and avoid snowballing demands from getting behind. Life happens. Please contact me with any requests or questions about conflicts you encounter, as early as you like. The instructor can arrange make-up exams. Late assignments besides exams will be accepted, although peer and instructor feedback on late work may be untimely or limited (feel free to contact me if you're waiting for something). The instructor routinely allows for necessary delays in completing learning activities. Students can expect flexibility around a course structure designed for learning engagement.

Evaluation Allowances

With so many assignments this semester, to give students added flexibility, they can miss two weeks of practice sets, quizzes, and discussions for any reason without the need to make arrangements or communicate with the instructor. (The nine participation activities include seven discussion forums.) At semester's end, the instructor will change the lowest two scores on practice sets, quizzes, and discussions to 100 percent (two of each type). Also, exams allow students to choose which questions to answer, to not penalize students for going in another direction for one module per exam. There is no quiz for module 14 and no exam for modules 12 to 14. All grades count for proposals and projects.

Learning Methods

Data literacy and analytical tools are important in the policy world. People within and across organizations need to interface well with researchers, analysts, data scientists and other experts to achieve good outcomes. Learning more about analysis helps us as data consumers and enables us to create and evaluate numerical information ourselves.

I've tried to create enough space for you to practice and express yourself. To make the course effective for more people, most activities in the syllabus are adaptable or somewhat optional—two of each weekly activity without explanation, with agreeable modifications to additional activities negotiable to match students' diverse learning styles and circumstances. The course is fairly structured. I think all the resources and check-ins will support people looking for cairns in unfamiliar terrain. I'll be listening for feedback so I can make adjustments to make the course a better fit for more graduate students.

Statistics can be challenging in the ways that it can be challenging to learn a language or get used to an unfamiliar device. With curiosity and time, anyone gradually gets better at stats. This course is an investment in yourself and your career. I realize you have other commitments that may often need to come first, such as employment, family, and other courses. Thanks for being part of this group.

Below is a brief description of course components that come up in the weekly modules. I'll give more detailed instructions with each assignment. Opening data files I use in the lecture videos and following along as a form of active listening should make the other assignments go more smoothly.

Proposals

Students will be asked to turn in two separate one-page proposals for topics they select, incorporating written feedback from another class member. The goal is to think of practical applications for what we learn. Students can follow their interests related to their workplaces, any nonprofit, local government concerns, national topics of public debate, management issues, etc. To practice research design for decision-making, students frame questions, identify likely data sources, and outline types of analysis that would be helpful.

One of two may be carried out later for the project. For proposals, we're looking for reasonable, concise, thorough plans and helpful peer suggestions. Grading is mostly based on effort. The first proposal is worth 4% of final grade, the second 6% because it calls for both a draft version and final product.

Projects

For Project 1, Canvas will randomly assign students to groups, usually three people each. Groups can choose one of a few datasets the instructor identifies. Groups select a research topic and proceed to methods and variables. The goal is to incorporate some of the methods learned in the first 10 modules, with an emphasis on regressions. Project 1 is 10% of the final grade.

When selecting a topic to develop on their own for Project 2, students can draw from either of their proposals (or introduce a third topic if they prefer). As they get further into the analysis, they can take the topic in new directions that seem noteworthy or impactful. Students find their own data and share their self-directed projects with the class, incorporating many statistics methods learned from multiple modules, such as frequency tables, central tendency measures, visualization, hypothesis testing, multivariate regressions, and crosstabs. Project 2 is 15% of the final grade.

Practice Sets

These provide a low-stakes practice opportunity with an answer key. Whereas the original presentation is in lecture videos, practice questions are explained in writing, so you're getting it two ways.

Grading is based on completion to reward commitment to the learning process. You get full credit for attempting each part of each question. Practice sets can be time consuming, but they're straightforward and support the other 85 percent of your grade. Students will receive full credit in place of their lowest two practice set scores to allow them to skip or partially complete two weeks' worth without consequence.

While you work on the practice questions, you're welcome to use any learning resources that help you, such as lecture videos, notes, web pages, books, and classmates. You have as much time as you need, and you can save your work and come back to it up until the due date.

Quizzes

These are intended to measure your progress with the mechanics of generating and interpreting numerical information for given scenarios. Quizzes provide structure to practice using data skills.

Since quizzes are based directly on questions in the practice sets, reviewing those questions, your answers, and answers from the instructor are great ways to prepare. Examples in module videos are also be similar to what is on the quiz.

To allow flexibility, all students will have their two lowest quiz scores (by percentage) dropped. There shouldn't be too much pressure with quizzes, only a moderate amount. You have as much time as you need, and you can save your work and come back to it up until the deadline. This is a space for review and continued learning.

To that end, while you work on quiz questions, feel free to use any learning resources that help you, such as lecture videos, notes, web pages, and books. I would discourage you from relying on another person for input during quizzes. The goal is to understand each skill yourself.

Exams

We have two timed exams that take a small, fairly random sample of content for all objectives in the modules covered. Quizzes are a good indication of the types of questions on exams, but in terms of content, anything similar to practice set questions is fair game. Requests and questions about exam content and format are welcome, and “what to expect” posts are in exam week module guides.

Exams are opportunities for students to show what they are learning. Exams encourage students to review and remember how to use data methods they figured out once or twice for examples in lecture videos, practice sets, and quizzes.

Students will have some choice over which questions to answer for credit during the exams—perhaps any three out of four. Exams are timed at about one hour. Practice will help you know how to approach a question and feel less rushed. To take exams, students will need access to a computer with SPSS and Excel. Our [Tech Help](#) page has more information about taking exams.

Participation

Discussion forums are an opportunity for students to give their insights and react to what other class members and guests bring up. The lowest two discussion scores will be dropped to allow students a couple of missing or minimal posts whenever they choose. Participation also includes self-assessments early and late in the semester, as well as brief survey questions about the course and your experience.

Online Course Practices

While strategies for navigating an online course are mostly similar to those in an in-person learning environment, instructors and students might consider way to participate fully this semester.

Instructor Expectations

The course instructor is familiar with the topics and methods you will encounter this semester. Students can expect the following of their instructor as a semester-long mentor and learning facilitator:

- The instructor will design the course with lectures, learning materials, and assignments that challenge students and will provide them with opportunities to learn and practice course content.
- Though this online course includes pre-recorded lectures, it is not a class that is run automatically by technology. The instructor and teaching assistants will interact with the class via announcements, virtual office hours, the Canvas Inbox feature, emails, and feedback on assignments, among other methods.
- The instructor will respond to emails in a timely fashion, usually within 48 hours, not including weekends and holidays.
- The instructor will be available for individual consultation via virtual office hours, email, and phone. Students will not be required to come to campus in order to meet with the instructor.
- The instructor will provide feedback on the assignments in a timely manner, usually within 2 weeks.

- The instructor will follow all official University of Utah policies regarding conduct in the classroom, incompletes, and accommodations. Accommodations will be considered on an individual basis and only with required documentation.
- The instructor will monitor the functionality and accessibility of assignments and other course components before the start of the semester. The instructor will promptly address any issues that arise with learning content and notify students of any changes.
- The instructor will consider a variety of learning modalities and preferences in adapting content.
- The instructor will welcome and consider student feedback, during the semester and at the end, to help address particular situations and improve the learning experience and course design over time.

Student Expectations

Though the online format allows students greater flexibility to complete their work, this course does have a structure and timeline, including due dates for course assignments. Students may find the following helpful for learning in this class:

- Many students log in to the course three or more times per week.
- To adapt to an online course like this, students' innate motivation and organization can help. Students are invited to take ownership of their learning and progress.
- Students can keep up with resources, due dates, and changes by regularly checking course announcements. The announcements tool is the instructor's official means of communication when distributing information to the entire class.
- Students can update their Canvas settings to receive timely notifications from the course according to their preferences.
- If students have any questions, are struggling with course materials, or need further assistance from their instructor, they are welcome to contact their instructor at any time via the "Inbox" feature in Canvas or another way that suits them.
- Students are expected to engage with their colleagues in a respectful and professional manner.
- Students can help their peers by notifying the instructor of any course resources that are not working or inaccurate. Especially after communicating about barriers to learning, students can expect flexibility such that lacking course design or functionality does not unfairly affect them.

Course Engagement and Participation

Below are some considerations for creating open learning and working communities where participants have the freedom to practice and develop. Several of these items paraphrase a Center for Research on Learning and Teaching [page](#) from the University of Michigan.

- Inclusion and balance in conversations: How can I take space and make space in this class?
- Read (and watch) each other's contributions: How do I validate people around me?
- See beyond comfortable points of view: What new perspectives interest you or your peers?
- Learn from mistakes without shame: What uncertain attempts are worth making?
- Words can harm: How might my language sound to my peers?
- Different backgrounds, different approaches: Do I generalize from my experience and position?
- Being inclusive: Is my behavior acceptable to someone who may be marginalized based on their culture, race, gender, health, origin, and socioeconomics?
- Showing up for others: What makes me a better ally?
- Classmates' learning: What that I do makes learning easier and more meaningful for someone else?
- Awareness, greetings: When might the people I'm taking the class with want to be noticed?
- Finding space for self-directed participation: How do I take ownership for learning in my own way?

University Policies and Resources

Below is information about resources and policies that should help us create a constructive learning space this semester. Topics include indigenous land, ADA accommodation, inclusivity, personal wellness, discrimination and harassment, LGBT identity, English language learners, veterans, undocumented residents, campus safety, and academic integrity. Feel free to contact the instructor and reach out on campus for any concerns, even if what you'd like to talk about is not specifically addressed below.

Indigenous Land Acknowledgement

"We acknowledge that this land, which is named for the Ute Tribe, is the traditional and ancestral homeland of the Shoshone, Paiute, Goshute, and Ute Tribes. The University of Utah recognizes and respects the enduring relationship that exists between many Indigenous Peoples and their traditional homelands. We respect the sovereign relationship between tribes, states, and the federal government, and we affirm the University of Utah's commitment to a partnership with Native Nations and Urban Indian communities through research, education, and community outreach activities" ([U source](#)).

ADA Accommodation

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice should be given to the [Center for Disability and Access \(CDA\)](#), Olpin Union Building, Rm. 162, (801) 581-5020 (V/TDD). CDA will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format.

Respect and Inclusion

At the University of Utah, we form supportive learning communities where we respect the personal backgrounds, identities, and views that make us who we are. The [One U Thriving](#) initiative is part of the university's path towards improvement on these fronts. Other helpful resources are available from the [Office of Equity, Diversity, and Inclusion \(EDI\)](#), Park Building Rm. 208, 801-581-7569. For example, EDI provides a current list of campus resources and connects people with our [Black Cultural Center](#), [American Indian Resource Center](#), and [LGBT Resource Center](#). The U provides [inclusive language resources](#) I found helpful regarding Native nations, persons with disabilities, and people of all genders and orientations.

Harassment and Violence

Civil rights laws and norms provide accountability for violence or harassment related to race, ethnicity, national origin, color, sex, age, gender identity or expression, sexual orientation, disability, pregnancy, pregnancy-related conditions, veteran status, religion, or genetic information. If you experience or notice discrimination, harassment, or sexual misconduct, you can report it to the [Office of Equal Opportunity and Affirmative Action](#), 383 S. University Street, first floor, [reporting page](#), (801) 581-8365, or the [Office of the Dean of Students](#), Olpin Union Building, Rm. 270, [reporting page](#), (801) 581-7066.

Campus Safety

The University of Utah values the safety of all campus community members. Emergency alerts and safety messages regarding campus safety are sent via text message. For more information regarding safety and to view available training videos, visit [safeu.utah.edu](#). To request a courtesy escort, you can reach campus police at (801) 585-2677. For safety or medical emergencies, dial 911.

Learners of English as an Additional Language

If you are an English language learner, please note several on-campus resources for your language and writing development: the [University Writing Center](#), Marriott Library, Rm. 2701, (801) 587-9122 and

the [English Language Institute](#), 540 Arapeen Dr. Rm. 115, (801) 581-4600. Please let me know if you have any questions about language barriers related to my teaching. I only speak English and Spanish, but I would like to see students with any linguistic background succeed in this course.

Gender Pronoun and Name Preferences

Class rosters the instructor receives show students' legal names and "preferred first name." I will honor you by referring to you with the name and personal pronouns you prefer. [Campus Information Services](#) and [Canvas](#) provide options for updating your preferred name and pronouns.

Veteran Center

Student veterans are welcome to engage with the university's [Veterans Support Center](#), Olpin Union Building, Rm. 418, (801) 587-7722. The center offers support, events, and links to outside resources.

Undocumented Student Support

Immigration is a complex phenomenon with broad impact on those directly involved and those indirectly as family members, friends and loved ones. If your immigration status presents obstacles to engaging in specific activities or requirements, you may request confidential assistance from the [Dream Center](#), Annex building (1901 South Campus Dr.) Rm. 1120, (801) 213-3697. The center offers several resources to support undocumented students (with and without DACA) and students from mixed-status families. Involving the center will not jeopardize your student status or financial aid.

Health and Wellness

Please tell the instructor if you need flexibility because you or someone close to you gets ill this semester. For example, appointments, recovery, caretaking, grieving, etc. understandably affect class participation. In the event of a personal crisis of any sort, due dates can be adjusted as we communicate and arrange for our continued learning; health and well-being come first.

Our experiences and health issues can involve stress, anxiety, relationship issues, depression, etc. that interfere with our ability to thrive. For support and confidential consultation, feel free to contact the [University Counseling Center](#), Student Services Building, Rm. 426, (801) 581-6826, and/or review resources from the [Center for Student Wellness](#), Eccles Student Life Center, Ste. 2100, (801) 581-7776.

Academic Integrity

Standards in higher education encourage individual learning, academic integrity, exchanging ideas, and attribution for others' work. University [policies on academic, professional, and ethical conduct](#) address cheating, misrepresenting one's work, plagiarism, and fabrication or falsification (see section B2). For example, citation and documentation are needed for the use of academic journals, applied studies outside of academia, published data sources, found visualizations, generative artificial intelligence (AI), and personal communication. Learning in class from a variety of sources and interactions is encouraged. Employers and communities may benefit from our proficiency with software and advanced tools. Academic integrity protects people's accomplishments, personal growth, and long-term reputations.

Module Objectives

Subtopics are listed as learning objectives. Of the 16 modules, 5 without new content are in parentheses. Students may find effective ways to reach these objectives without completing all activities and assignments as designed by the instructor. Adaptation and conversations are encouraged.

1. Quantitative research

- A. Learn about the course and self-assess stats ability and confidence
- B. Consider purposes of quantitative methods
- C. Identify sources of policy-related data
- D. Give examples of different types of performance measures
- E. Identify measurements as nominal, ordinal, or interval
- F. Identify dependent and independent variables for hypothesis statements and research questions

2. Distributions

- A. Create and interpret frequency distribution tables
- B. Calculate group and cumulative percentages for tables in A
- C. Create and interpret histograms and other charts

3. Central tendency

Calculate and compare, using raw data or frequency tables:

- A. Mode, for nominal and ordinal data
- B. Median
- C. Mean, including weighted average

4. Dispersion

- A. Determine domain, range, and percentiles
- B. Calculate and interpret standard deviation (and introduce the normal distribution)

5. (Exam week)

- A. Review modules 1–4
- B. Take Exam 1

6. Inference

- A. Apply probability theory to the normal distribution
- B. Understand inference concepts, samples and populations
- C. Calculate confidence limits

7. Hypothesis testing

- A. Discuss hypothesis testing concepts
- B. Test differences between means for an interval independent variable with two groups (t test)

–. Fall Break

8. Regressions 1 of 2

- A. Understand how regressions measure correlation between interval variables
- B. Run and interpret linear regression with one independent variable
- C. Test for assumptions of linear regression and recommend alternatives when they are not met

9. Regressions 2 of 2

- A. Discuss time series trends and forecast future values
- B. Run and interpret linear regression with more than one independent variable
- C. Run and interpret logistic regressions

10. (Exam week)

- A. Review modules 6–9
- B. Take Exam 2

11. (Project 1)

- A. Do the semi-guided project
- B. Collaborate with colleagues

12. Analysis of Variance

- A. Test differences between means for more than two groups
- B. Perform one-way and two-way analysis of variance (ANOVA)
- C. Comment on peers' quantitative work on Project 1

13. Contingency tables

For nominal and ordinal data:

- A. Create and interpret crosstabs with two variables

14. Nonparametric tests

Run and interpret nonparametric tests for nominal data:

- A. Significance: Chi-square
- B. Correlation: Cramér's V

Run and interpret nonparametric tests for ordinal and interval data:

- C. Significance: Mann-Whitney and Kruskal-Wallis
- D. Correlation: Gamma and Spearman's

Note: There is no exam over the content in modules 12–14 and no quiz for module 14. Making more space for Project 1 in groups seemed like a career-relevant learning opportunity worth the missed review and extra practice for the quiz and exam that used to be part of the class.

15. (Project 2)

- A. Start the open-ended solo project
- B. Incorporate skills we've practiced this semester
- C. Self-assess stats ability and confidence

16. (Project 2 presentations, finals week)

- A. Complete your own analysis and share it with peers
- B. Comment on peers' quantitative work
- C. Choose appropriate methods from this course for policy situations you encounter in the future
- D. Incorporate context and planning considerations when designing and managing data projects

Calendar

To give students flexibility, due dates are spread out with time-consuming assignments at the end of the week. Under most circumstances, assignments are due before midnight (11:59 PM).

During a typical week...

- **Tuesdays** are the last day to take a **quiz** on any new material covered the previous week.
- By **Thursdays** you should post something on the week's **discussion** topic (numbered by module, not sequentially like quizzes and practice sets).
- Most **Saturdays** a **practice set** is due. By the end of Monday, I'll review student responses to open-ended practice questions and answer any questions to help you get ready for the quiz Tuesday.
- **Exceptions:** Our routine changes for weeks with exams, projects, and holidays.

Non-routine assignments:

- **Proposals** are due by Sunday. Discussions about them are on Thursdays.
- **Project** components are due on various days as noted.
- **Exams** can be taken on Canvas any time from the Thursday of exam week to the following Monday

Below are tentative dates for the course. Official due dates show in Canvas assignments and in the "Course Summary" section below the online version of this syllabus. Any change in our schedule will occur there, flagged by an announcement. I intend to update this document as well.

Module (Dates)	Topic	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Comment
1 (Aug 21 to 27)	Quantitative research		SA1		D1		PS1		
2 (Aug 28 to Sep 3)	Distributions		Q1		D2		PS2		
3 (Sep 4 to 10)	Central tendency	—	Q2		PP1		PS3		Labor Day on Monday
4 (Sep 11 to 17)	Dispersion		Q3		D4		PS4	PP1	PP1 peer review (Sun)
5 (Sep 18 to 24)	<i>Exam week</i>		Q4		E1	E1	E1	E1	E1 availability
6 (Sep 25 to Oct 1)	Inference	E1			D6		PS5	PP2	PP2 draft
7 (Oct 2 to 8)	Hypothesis testing		Q5		D7		PS6	—	Fall Break starts Sunday
— (Oct 8 to 15)	<i>Fall Break</i>	—	—	—	—	—	—	—	no assignments
8 (Oct 16 to 22)	Regressions 1 of 2		Q6		PP2		PS7		PP2 peer review
9 (Oct 23 to 29)	Regressions 2 of 2		Q7		D9		PS8	PP2	PP2 final
10 (Oct 30 to Nov 5)	<i>Exam week</i>		Q8		E2	E2	E2	E2	E2 availability
11 (Nov 6 to 12)	<i>Project 1 in groups</i>	E2			PJ1				PJ1 topic
12 (Nov 13 to 19)	Analysis of variance		PJ1		PJ1		PS9		PJ1 due (Tue) & comments (Thu)
13 (Nov 20 to 26)	Contingency tables	Q9		PS10					Thanksgiving break (Thu-Sun)
14 (Nov 27 to Dec 3)	Nonparametric tests		Q10		D14		PS11		
15 (Dec 4 to 10)	<i>Project 2 solo</i>		SA2		PJ2	—			PJ2 draft, Reading Day
16 (Dec 11 to 15)	<i>Project 2, finals week</i>			PJ2		PJ2	—	—	PJ2 presentation and discussion Holiday recess starts Saturday

Note: SA = self-assess, D = discussion, PS = practice set, Q = quiz, E = exam, PP = proposal, PJ = project

You can find tuition, drop-add dates in the University of Utah's [academic calendar](#). Since we don't have due dates on Monday, September 4, we'll proceed as usual the week of Labor Day.

Grading flexibility: Keep in mind low grades for two discussion assignments, two practice sets, and two quizzes will change to full credit as noted under Learning Methods.

Adaptation: The learning activities on the calendar in the syllabus and on Canvas will not always align well with learner needs and interests in the course. They reflect instructor preferences, learner feedback, past experiences, and evolving understanding of pedagogy. Students are welcome to propose substitute assignments, reasonable delays, and creative accommodations they find constructive. The instructor is looking for signals like that, in the interest of equitable access, learning community engagement, and general individual well-being.

Note: This syllabus is not a binding legal contract and is subject to change.