

Introduction to Probability and Statistics for Business, W21, 2019

Four (4) semester credits

Course Information for Stat W21

Welcome to W21: the online version of Stat 21 (Introduction to Probability and Statistics for Business). Please **read this page carefully**, especially the instructions and troubleshooting advice.

To use the online materials, you may use Firefox, Chrome, or Safari. Internet Explorer is **not** recommended. If you ever have a problem with examples or assignments, please send me an email with the problem you encountered, the browser you were using at the time (along with the version). You must have Javascript enabled in your browser, and your browser should be updated whenever a new version is available. The browser should be configured to accept cookies from the originating server.

Note that you can log in from different computers and your questions on a particular assignment will not change. You must write your answers down, though, as cookies are not reliable storage. If you don't see the "submit" button, but the assignment is not due yet, please check that your computer is not set to the wrong date and time.

There are **THREE** assignments **due the first week**, the first one is due on **June 26th (Wednesday)**. This is called Set 1, mathematical prerequisites, and gets you warmed up for this course. The second and third are due on Thursday and Friday of the first week. The first week gives you a flavor of what to expect. This is a VERY fast-paced course. Also, make sure to read the ["Troubleshooting" section](#) of the assignment page before attempting the first assignment.

There is no way for us to accept late assignments, since the answers come on automatically as soon as we go past the deadline. Your **two lowest** homework scores are **dropped**, and there are two extra credit assignments, so you have some wiggle room.

More information on the assignments follows below.

Course Instructor

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Graduate Student Instructors (GSIs)

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Office Hours and Other Places to get help

- The GSI will hold both in-person and online office hours. There will be many office hours to choose from throughout the week, so please find a time that suits you and come in and ask about what you find puzzling or difficult. There is no need for you to struggle through this course alone.
- We will use Zoom for the online office hours.
- More details about the in-person office hours will be listed on the Office Hours page (left-hand navigational menu).
- You will need a webcam and working headset (or built in camera and microphone) in order to participate in office hours.
- You must enter the online office hour within the first 20 minutes. If you cannot attend within the first 20 minutes, but want to come later during the office hours, please send an email to the person holding the office hours and make an appointment to meet in the virtual room where the office hour will be held.

Student Learning Center

The SLC will offer drop-in STAT tutoring support Monday – Thursday 11 a.m. – 4 p.m. Go to slc.berkeley.edu for more information.

Discussion Forum (Piazza)

- We will use Piazza as a discussion forum. There is a link on the left navigation menu that takes you to our class page on Piazza. Please sign up there.
- If you have a general question about administrative matters, or about the material in the text, or a clarification regarding

homework, please post it on Piazza. Do not send an email about your question, since others may have the same question. Also, you will get a much faster response if you post your question on Piazza. **Please search the forum to see if your question has already been asked**, and if not, go ahead and post it. You may also attend office hours to clarify your question.

- I encourage you to try and answer each other's questions. The GSI and I will monitor the discussion forum, and endorse correct answers.

Required Text and Other Readings

- The text is [SticiGui](#) by Professor Philip Stark. SticiGui is freely available online. You must have Javascript enabled in the browser. The browser must accept cookies from the originating server. You should have the latest version that is available at the beginning of the summer.
- A recommended text is *Statistics*, by Freedman, Pisani, and Purves (4th Edition, W.W. Norton and Co.) This is an excellent book to further your understanding of the subject.
- If you are interested in reading a non-text book, Nate Silver's book [The Signal and the Noise](#) is good. It discusses predictions in the face of uncertainty in a variety of fields. It has interesting discussion about the successes and limitations of advanced statistical methods in baseball, for example.
- Another fun book, though somewhat dated, is [How to lie with Statistics](#) by Darren Huff.

Lectures and Homework Assignments

Lectures

- There are recorded lectures of Professor Philip Stark embedded within the text. Please use the [SticiGui](#) page to view them. There is also a link from the dropdown menu on that page to the lectures, if you wish to view them independently of the text.
- Professor Ani Adhikari teaches a MOOC course using SticiGui. It is aimed at Stat 2 students, but it might help. You will need to register with [edX](#) and then look for Statistics 2.1x, 2.2x, and 2.3x. You should be able to find the slides once you locate the course (the link is usually below the video). Please keep in mind that this

course is *not your* course; the most relevant lectures are Professor Stark's.

Homework Assignments

- The [assignments](#) are available online at [SticiGui Assignments](#). They are due **as posted**. (You use Internet Explorer at your own risk. We do not provide any guarantee that it will work. All other browsers should work fine.)
- Please **check** the due dates, as you work the assignments. There are four extra credit assignments that are due on August 9th. Your maximum homework score will be 100%, but many of you may want to complete the extra assignments to replace scores that you are not happy with.
- Once you are on the [assignments page](#) on SticiGui, please select our course from the dropdown menu. You will then be asked to input your name, email, and SID. **Please use the email and SID that is recognized by UC Berkeley Summer Sessions.** The SID should be numbers only. If you have any problem logging into the assignment page, please let me know. Do not wait until the day the assignment is due to enter this information.
- There are usually **4** problem sets due each week, on Mondays, Tuesdays, Wednesdays and Thursdays. You may turn them in early. **Late assignments will not be accepted for any reason.** If you wait until the last minute to submit your assignment, you risk not being able to submit on time due to congestion. Please plan to submit your homework with time to spare.
- You are allowed to submit each assignment **up to three times** before the due date. The **last submission** (not necessarily the one with the highest score) counts. You can see your score after each of the first three submissions.
- The problems you missed are identified on the confirmation screen after you submit - not in the problem set itself. You only get that one chance to write them down, and there is no other way to see which problems you missed until after the due date.
- The problems are identified as (Qxx), which matches the Q-numbers in the assignment. **Q-numbers and Problem numbers are not the same:** Problems can have many parts, each of which has a Q-number.
- While inputting your answers, do NOT round off numerical answers, not in your final answer, nor in intermediate steps. This can result in your answer being marked incorrect. If you are inputting a

number that is 1,000 or more, then you may input it with commas (but you don't have to). You may use scientific notation if you wish.

- After the due date of each assignment, you can see the correct answers by opening the assignment again. After the due date, when you answer each problem, you will see an X or a check mark, just like in the book chapters.
- The assignments are often quite difficult, and will require some thinking on your part. You will not be able to, in most cases, begin the assignment a couple hours before it is due and then finish on time. Some ask you to apply the material to more complex problems that—superficially—are not like any problem in the book.
- The exams are designed so that the faster students will finish in about half the time available. Most students do not feel time pressure during the final exams.

Learning Activities

VERY IMPORTANT

You won't be able to access the course material until you read and make your pledge to Academic Integrity.

You are expected to fully participate in all the course activities described here.

1. Read the assigned textbook pages
2. Watch and listen to the lecture presentations
3. Read web-based announcements and postings during the course
4. Complete homework assignments
5. Complete the final exam

Tips for Success in Stat W21

- Watch the lectures (embedded in the chapters of the online textbook).
- Read the book **carefully**. That means **reading** it, and **working** through the examples as you go.
- If you read just enough to get your homework problems correct, then you will have a good homework score, but may not have understood the underlying concept.
- Don't just look for the formula. Study the real-world scenarios to understand how it is related to the formula. It is not all about calculation!

- Make sure to read the chapter **before** trying the homework.
- Work through all the examples and exercises in the text. If you want additional exercises, reload the page to get new ones.
- If you have a question, search on Piazza to see if your classmates have already discussed and resolved the issue. If not, post your question to Piazza, and you may get a reply from a fellow student in minutes! Please do not send emails about the problem to the GSIs or to the instructor. Be careful, do not ask for the exact answer to your homework problem. That is considered cheating.
- **Don't game the system.** If, on your first submission, you get something wrong, try to understand why rather than just arbitrarily selecting a different answer. This will make a difference on your exam. Remember – the exam has only one submission!
- Don't google the problem to look for the answer online. Again, it might serve you momentarily, but you will not have understood the concept, and this will affect your exam performance.
- Please **write down the answers to your assignments.** This is for two reasons. If you save your answers, they are saved on your computer as a cookie, and you will not see them if you log in from a different machine. Furthermore, cookies are not reliable storage, and your answers can get lost. I have seen many crestfallen students who have lost answers after working on them a while. Don't let this happen to you!
- Please do come to office hours, both online as well as in person. All we expect is that you have worked on the problem somewhat, not that you open the book for the first time during office hours.

Final Exam, Grading and Academic Honesty

The final exam is on **Thursday, August 15, 5 pm - 8 pm, in a location to be announced.** Note that it is NOT on Friday. If you are an off-site student, please carefully review the [Proctored Final Exam Process](#) to arrange for your proctor exam.

- The final exam is cumulative. Practice exams are available online.
- Make sure that you bring an ID to the exam. If you forget, you may bring it to us the next day, and we will grade your exam after we check your ID.
- You are allowed two 8.5" by 11" pages of notes, front and back (4 sides, typed or handwritten), a calculator (details below), a sliderule, a pen, extra scantron forms to auction to forgetful colleagues.

- You may use a scientific calculator for the exam. No graphing calculators, and no calculators with any kind of wireless or note-storing capability.
- You **may not** use any wireless device (including cell phones).
- You will do your scratch work on the exam (not the scantron).

Grading

- To pass the course (with a D), you must make **at least 66% on the homework and at least 60% on the final**. If you meet **both** criteria, your course grade is the **weighted average** of your homework and final grades, with the homework counting 40% and the final 60%. If you get below 66% on the homework or below 60% on the final, **you will fail the course**.
- Grades will not be "curved". This means that you are not in competition with fellow students. It is possible for everyone to make an A (or an F). Grades on assignments are posted on SticiGui. The course grade will be posted in CalCentral.
- **Incomplete Grades:** By University policy, for a student to get an Incomplete requires that the student was performing passing-level work until the time that something happened that (through no fault of the student) prevented the student from completing the coursework. **If you take the final, you completed the course.** The time to talk to me about incomplete grades is **before you take the final**.

Academic Honesty

- Discussing homework is fine. Copying or getting someone else to do your homework is cheating. Do your own work and submit your own homework. Anyone found cheating will receive an F in the course, and reported to the Student Conduct office. Cheating will not be tolerated.

Course Policies

Honor Code

The student community at UC Berkeley has adopted the following Honor Code: "As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others." The expectation is that you will adhere to this code.

Collaboration and Independence

Reviewing lecture and reading materials and studying for exams can be enjoyable and enriching things to do with fellow students. This is recommended. However, unless otherwise instructed, homework assignments and the online exam are to be completed independently and materials submitted as homework should be the result of one's own independent work.

Cheating

A good lifetime strategy is always to act in such a way that no one would ever imagine that you would even consider cheating. Anyone caught cheating on an exam in this course will receive a failing grade in the course and will be reported to the University Center for Student Conduct. Exams are to be completed without the assistance of other people, and without reference to texts, notes, and other materials. The expectation is that you will be honest in the taking of exams.

Plagiarism

To copy text or ideas from another source without appropriate reference is plagiarism and will result in a failing grade for your assignment and usually further disciplinary action. For additional information on plagiarism and how to avoid it, explore the resources:

[UC Berkeley Library Citation Page, Plagiarism Section](#)

[GSI Guide for Preventing Plagiarism](#)

Academic Integrity and Ethics

Cheating on exams and plagiarism are two common examples of dishonest, unethical behavior. Honesty and integrity are of great

importance in all facets of life. They help to build a sense of self-confidence, and are key to building trust within relationships, whether personal or professional. There is no tolerance for dishonesty in the academic world, for it undermines what we are dedicated to doing – furthering knowledge for the benefit of humanity.

Incomplete Course Grade

Students who have substantially completed the course but for serious extenuating circumstances, are unable to complete the final exam, may request an Incomplete grade. This request must be submitted in writing or by email to the GSI and course instructor. You must provide verifiable documentation for the seriousness of the extenuating circumstances. Please contact the instructor about incomplete grades **before taking the final**. According to the policy of the college, Incomplete grades must be made up before the first day of the following Spring semester.

Students with Disabilities

If you require course accommodations due to a physical, emotional, or learning disability contact [UC Berkeley's Disabled Students' Program \(DSP\)](#). Notify the instructor and GSI through course email and inform them which accommodations you would like to use.

UC Berkeley is committed to providing robust educational experiences for all learners. With this goal in mind, we have activated the ALLY tool for this course. You will now be able to download content in a format that best fits your learning preference. PDF, HTML, EPUB and MP3 are now available for most content items. For more information visit the alternative formats link or watch the video entitled, "[Ally First Steps Guide](#)."

End of Course Evaluation

Before your course end date, please take a few minutes to participate in the Course Evaluation to share your opinions about this course. You will receive the Course Evaluation via email. The evaluation does not request any personal information, and your responses will remain strictly confidential. You may only take the evaluation once. It will close August 15th, 2019.