

STA 111.01: Probability and Statistical Inference

Classroom: Perkins 2-072
Time: Mon - Fri, 2:00 - 3:15 pm
Wed, 3:30 - 4:30 pm

Professor: Colin Rundel
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Textbook [Probability and Statistical Inference](#), Hogg, Tanis, & Zimmerman
Pearson, 9th Edition, 2015
ISBN: 9780321923271

Course Website: http://stat.duke.edu/~cr173/Sta111_Su14

Office hours:
Professor Monday 12:30 - 1:30 pm
Monday 3:30 - 5:00 pm
or by appointment.

Exams: Midterm: Wednesday, June 4th, 2:00 - 4:30 pm
Final: Thursday, June 19th 2:00 - 4:30 pm

Holidays: Monday, May 26th - Memorial Day

Grading:

Your final grade will be comprised of the following.

Homework	25%
Lab	15%
Midterm	30%
Final	30%

The exact ranges for letter grades will be curved and cutoffs will be determined after the final exam. The more evidence there is that the class has mastered the material, the more generous the curve will be.

Lectures:

Lectures will include a combination of theory / derivations and interesting and illustrative examples. Slides will be posted before each lecture. Note that these slides are not intended to be exhaustive and will be a poor substitute for taking your own notes during the course of the lectures. My expectation is that students should attempt the assigned readings before class so that they are not seeing the material for the first time in lecture. You are responsible for all the material covered in lecture as well as in the text and homeworks. Please ask questions in class, office-hours or by e-mail if you are struggling (or just curious), do not wait until just before an exam when it may be too late.

Homework:

These will be assigned weekly on the course webpage and will be comprised of problems from the text and additional problems. The objective of the homework assignments is to help you develop a more in-depth understanding of the material covered in the lectures and help you prepare for exams.

Homework assignments will be graded out of 100 points and grading will be based on completeness as well as accuracy. In order to receive credit you must show all your work. You are welcomed, and encouraged, to work with each other on the homework problems, but you must turn in your own work. If you copy someone else's work, both parties will receive a 0 for the assignment and will be reported to the *Undergraduate Conduct Board*. If you have any questions about what constitutes plagiarism do not hesitate to ask.

Your homework must be stapled, legible, and contain your name and student ID number and is due at the beginning of class on the due date (see late work policy below). If you cannot make it to class the day homework is due, please email me to make arrangements to drop off your homework earlier. There should be approximately 12 homework assignments throughout this course, your final homework grade will be graded based on your highest $n - 1$ scores where n is the actual number of homework assignments (lowest homework score will be dropped). You are welcome to type up your assignments using L^AT_EX, if you wish to use an alternative typesetting program please speak with me before doing so.

Labs:

The objective of the lab is to give you hands on experience with data analysis using modern statistical software. The labs will also provide you with tools you will need to complete the research projects successfully. We will use a statistical analysis package called RStudio, which is a front end for the R statistical language. You can use RStudio on any computer with a web browser. To get an RStudio account you will need a gmail account, if you don't have a gmail account, you can create one at <https://www.google.com/accounts/NewAccount>. You will receive instructions on how to submit your gmail account before the first lab.

Each lab will include exercises that you will need to complete which will be due the following week. Similar to homework, collaboration is encouraged but you are responsible for your own write up and you must turn in your own work. Attendance for all labs is mandatory and while you may still turn in the write up for labs you do not attend there will be a 50% penalty for any non-excused absences. There are a total of 11 lab write ups planned for this course, your final lab grade will be based on your highest 10 scores (lowest lab score will be dropped).

Exams:

The midterm will be on Wednesday, June 4 in class. The Final Exam will be a comprehensive 2.5 hour exam that will be administered on Thursday, June 19 in class. Exam dates cannot be changed. No make-up exams will be given. If you cannot take the exams on these dates you should drop this class. You cannot pass this class if you do not take the final exam regardless of your scores on the other components of this class.

You will be allowed to bring one sheet of notes (“cheat sheet”) to the midterm and final. This sheet must be no larger than $8\frac{1}{2}'' \times 11''$, and must be prepared by you. You may use both sides of the sheet.

Email:

I will regularly send course announcements by email, make sure to check your email daily. Email is the easiest way to reach me outside of class, note that it is much more efficient to answer most questions in person.

Academic integrity:

Duke University is a community dedicated to scholarship, leadership, and service and to the principles of honesty, fairness, respect, and accountability. Citizens of this community commit to reflect upon and uphold these principles in all academic and non-academic endeavors, and to protect and promote a culture of integrity. Cheating on exams or plagiarism on homework assignments, lying about an illness or absence and other forms of academic dishonesty are a breach of trust with classmates and faculty, violate the *Duke Community Standard*, and will not be tolerated. Such incidences will result in a 0 grade for all parties involved. Additionally, there may be penalties to your final class grade along with being reported to the *Undergraduate Conduct Board*.

Please review the Academic Dishonesty policies at <http://www.studentaffairs.duke.edu/conduct/resources/academicdishonesty>.

Excused Absences:

Students who miss tests due to a scheduled varsity trip, religious holiday or short-term illness should fill out an online *NOVAP*, *RHoliday* or *short-term illness* form respectively and will be given the grade of their Final Exam for those tests. Note that these excused absences do not excuse you from assigned homework, it is your responsibility to make alternative arrangements to turn in the assignment in a timely fashion.

Those with a personal emergency or bereavement should seek a Dean’s Excuse; check with your academic dean for details.

Policies:

- Late work policy for homework assignments:
 - late but during class: -10 points
 - after class on due date: -20 points
 - next day or later: no credit
- There will not be make-ups for any of the homeworks or exams.
- All regrade requests on homeworks and exams must be discussed with the professor within one week of receiving your graded work. There will be no grade changes after the final exam.