

Math 10: Introductory Statistics

Spring 2011

www.math.dartmouth.edu/~m10s11

www.blackboard.dartmouth.edu/

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Office Hours:	Mon & Wed 3-4pm Thurs 10-11:30am	Tutorials:	Tues & Thurs 7-9pm

Meeting Times & Attendance

Where:	TBA
When:	Mondays, Wednesdays 1:45-2:50pm and Fridays: Thursdays: 1:00-1:50pm

Notice that we will plan to use all of the x-hours. Generally, we will use these sessions to go over homework, quiz or exam solutions, to answer general questions from class, and to do activities designed to help solidify the ideas covered during lectures. A full calendar will be available on the website.

Attendance is expected and highly recommended. I will not take attendance, but you ***will*** be held responsible for everything that happens in class, whether you are there or not. If you have to miss class, please come see me so I can help you catch up (if you know about your absence in advance and can talk to me ahead of time, even better!).

Text & Other Resources

We will be using *Statistics, 4th Ed.* by Freedman, Pisani and Purves. It is available at Wheelock Books, but you can also find it online or borrow it from a friend who took this course last Spring.

I will post other resources (links, datasets, etc.) periodically on the course website AND on the course blackboard site. I will normally alert you to these additions in class, but it might be a good idea to bookmark these sites and check them daily.

Course Goals

The ORC describes this course as follows: “An introduction to the basic concepts of statistics. Topics include elementary probability theory, descriptive statistics, the binomial and normal distributions, confidence intervals, basic concepts of tests of hypotheses, chi-square tests, nonparametric tests, normal theory t-tests, correlation, and simple regression.”

In addition to receiving this introduction, students will play an active role in learning to:

- accurately interpret and understand statistics encountered in- and out-side of class;
- question statistical applications in the real world;
- generate statistics from raw data;
- work with their peers to deepen their understanding of statistical ideas;
- and develop mathematical/statistical communication skills.

Every activity and assignment in this course will serve these goals, or help me gauge students’ progress toward them. If you are ever unsure of *why* I am asking you to do something, please ask.

Reading & Assignments

We will cover roughly a chapter during each class period. At this pace, I will not be able to cover *every single idea* touched on in our textbook. Hence, I expect students to be reading over the chapters as we go. Reading a math textbook can be a daunting task, but I think you will find this one far more readable than most (this was actually one of the authors' goals).

Each day, I will announce/post practice problems. Yes, that's right, practice means **I will not be collecting your weekly homework**. But, I will post solutions to these problems so that you may check your own work. If you are struggling, please come to office hours or tutorial for clarification, assistance, and additional practice problems/examples. Your comprehension of this material will be graded via weekly quizzes (see below), so it is important that you understand all of the homework problems and their solutions.

In an effort to further clarify my expectations and to encourage you to think of reading as 'real' homework, I will post "reading goals" on the website. If you are struggling to meet any of these goals after we have covered the material in class and you have also read through the chapter yourself, you should take this as an invitation to come to office hours and/or attend tutorial. Zach and I are here to help.

In addition to this ungraded daily scholastic work, there will be a graded real-world component. Students will find, summarize and critique a use of statistical ideas from class in some popular media article or report. The logistical aspects of this assignment will depend heavily on the size of the class, so more information will be available once the term is underway.

Quizzes

As mentioned above, quizzes will be used in lieu of collecting and grading homework. They will take place during the *first fifteen* minutes of class each Friday (except during exam weeks), so Friday would be an especially good day to be on time.

Class/lecture material and discussions are fair game for quizzes, but the primary focus will be on the practice problems assigned up to (and including) the Wednesday prior to the quiz. These quizzes are not designed to stump you, they are meant to keep everyone up to speed with the course. If you keep up with your reading, review your notes regularly and take the time to work out the assigned problems, you will have nothing to worry about.

Exams

There will be two midterms and a cumulative final exam. When the midterms come around, I'll announce exactly what material will be covered.

The tentative exam dates are given below:

Midterm 1	April 20	5-7pm
Midterm 2	May 11	5-7pm
Final	June 3	3-6pm

Grading

Grades will be based on performance on exams, quizzes and article reviews.

Assignment	Approx. #	% of Grade
Articles	3	5
Quizzes	7	20
Midterm 1	n/a	20
Midterm 2	n/a	20
Final	n/a	35

Honor Principle

Dartmouth students are expected to adhere to the honor principle. In this course that means:

On Homework: Since no written solutions will be graded, I don't expect we'll have any problem with this. Students are welcome and encouraged to work in groups to discuss general ideas and specific problems.

Articles and write-ups: It will be the student's responsibility to verify that the article (s)he submits has not already been submitted by another student. Critiques of the articles should consist entirely of the author's own original thoughts and words.

On Quizzes and Exams: All quizzes and exams will be closed book. This means that no help from any external source is allowed. Occasionally reference sheets may be provided, but this will be the only exception.

If you have any questions as to whether some action would be acceptable under the Academic Honor Code, please speak to me, and I will be glad to help clarify things. This is a case in which it is definitely better to ask permission than forgiveness.

Special Accommodations

Students with disabilities enrolled in this course and who may need disability-related classroom accommodations are encouraged to make an appointment to see me before the end of the second week of the term. All discussions will remain confidential, although the Student Accessibility Services office may be consulted to discuss appropriate implementation of any accommodation requested.

Whether or not you have a disability, the Academic Skills Center is an excellent place to visit. Take some time to look at their videos and other resources. Would you benefit from some of the planning tools? Do you think you could improve your note-taking skills? Is stress eating your life? You're the only one who knows what might benefit you, and it doesn't hurt to look. I realize that some students may wish to take part in religious observances that fall during this academic term. Should you have a religious observance that conflicts with your participation in the course, please come speak with me before the end of the second week of the term to discuss appropriate accommodations.

Author's Note

During a typical class period, I will do some lecturing (during which I sincerely hope you will interrupt me with questions or comments... especially when prompted), we will spend some time using Microsoft Excel to explore some data, you will share ideas and work with your classmates, and we may watch a video clip or read a brief article which exhibit the usefulness of statistics.

I will do my best to keep class interesting and I am committed to helping all of my students succeed. At the beginning of class, we will talk more about ways you can help with both of these goals. You will have a lot of autonomy in this class and you will need to be proactive in order to succeed. But, if you ever want or need more individualized feedback, all you have to do is ask.