An Introduction to Statistics 371

Bret Hanlon

Department of Statistics
University of Wisconsin—Madison

Fall 2011
(Statistics is) the most important science in the whole world: for upon it depends the practical application of every other science and of every art: the one science essential to all political and social administration, all education, all organization based on experience, for it only gives results of our experience.

Florence Nightingale - statistics is the science of science quote
Course Objectives

Statistics 371: Introductory Applied Statistics for the Life Sciences

1. Develop mastery of basic statistical concepts
2. Develop the ability to apply these concepts correctly, especially in problems originating in the life sciences
3. Learn to communicate effectively in writing the results of a statistical analysis to a non-statistical audience
4. Become a more statistically-informed citizen
Course Objectives-Simpler

- Learn how to *think* statistically.
Discussion Sections

- All signed up for one discussion section.
- Attend the section you signed up for. If a conflict, then choose a new one and stick to it.
- Start next week.
- Actual discussion sections: 311, 312, 313, 314.
Web

- See http://www.stat.wisc.edu/courses/st371-hanlon/ for notes and assignments.
- See https://learnuw.wisc.edu/ for grades and discussion.
- Syllabus will be posted on the website. You are responsible for reading the syllabus (and these introductory slides) and understanding the course policies.

Read the lecture topics prior to class.
Calculator

- A scientific calculator (with logarithms, exponents, trigonometric functions, simple memory and recall, and factorial) will be necessary.
- Need it for exams (HW you could use a computer or a calculator).
- Hint: Become familiar with it before the exam.
Homework

- Weekly HW assignments.
- Assignments are given on Thursdays or Fridays (first one will be posted this week).
- Due on Fridays in your TA’s mailbox.
- No late HW (of course you can turn it in early, either to your TA’s mailbox or during discussion).
- Use cover sheet when turning in the HW
- Turn it in early to your TA’s mailbox (Jack can tell you where they are).
- HW is given (almost) every week (exception for midterms, breaks).
- You may drop one assignment score (might be missing due to illness or other commitments).
- You may collaborate on homework, but each student must write out their own solution.
- What you turn in must be neat.
Exams

- One midterm
- Cumulative Final
- No makeups.
Grading

Homework 10%
Midterm Exam 40%
Final Exam 50%

- Course grades are based on the above percentages.
- I provide a safe scale.
<table>
<thead>
<tr>
<th>Course Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>94–100 %</td>
<td>A</td>
</tr>
<tr>
<td>90–94 %</td>
<td>AB</td>
</tr>
<tr>
<td>80–90 %</td>
<td>B</td>
</tr>
<tr>
<td>75 – 80 %</td>
<td>BC</td>
</tr>
<tr>
<td>60 – 75 %</td>
<td>C</td>
</tr>
<tr>
<td>55 – 60 %</td>
<td>D</td>
</tr>
<tr>
<td>0–55 %</td>
<td>F</td>
</tr>
</tbody>
</table>
Honors Credit

- Student taking the course for honors will submit an honors project.
- Details on this project can be found on the course website.
Classroom Etiquette

1. Have a question? Then ask me.
2. Walk in the class turn off cell phones, smart phones, etc, and put them away.
3. Contract. Walk in class, stay in class.
4. No texting.
5. No laptops (special considerations).
6. If you are confused, then ask a question.
Course Registration

1. Sorry, it is a mess.
2. No promises, but *most* students are able to officially enroll. It is a risk, but...
3. If you are not registered for the course, but want to be then talk to me (I can at least add your email to the course listserv).
Electronic Communication

1. If you email me, have “Stat 371” in the subject line (“I’m in your class”, causes problems because I teach multiple classes).
   Examples
   1. About HW? Stat 371: HW
   2. About the midterm? Stat 371: Midterm

2. Sometimes I won’t reply directly to you (20 students email me the same basic question, I won’t separately reply to all 20 emails). Instead I might:
   1. Address the issue in the next class.
   2. Send a response via the classlist serv.

3. Obviously, I will keep all private matters, private.

4. Email is not good for detailed HW questions. I won’t answer such questions over email. This is better answered in person.
   1. Discussion section. Designed for helping you solve HWs
   2. Professor’s office hours.
   3. TAs’ office hours.
   4. Tutoring center (details to be announced).
   5. Ask me after class.
Course Webpage

- It will include an evolving schedule of lectures.
- You can find the slides that I’m presenting
- Sections of the textbook that you should read.
Concerns So Far

1. Where is the syllabus?
2. Will you post notes ahead of time?
3. How to take notes? Will you always use slides?
Other Questions

• Do you have concerns?