An Introduction to Statistics 571

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Welcome

- Two lectures, same notes, same assignments, same exams, *different Brets*.
- If space is available, you may attend either lecture and the discussion section of your choice.
  (Indicate on your homeworks which session you plan to attend.)
- First discussion section will include an introduction to R, so bring a laptop if you have one.

Web

- See `http://www.stat.wisc.edu/st571-larget/` for notes and assignments.
- See `https://learnuw.wisc.edu/` for grades and discussion.
- Please use the discussion forums and not regular e-mail for content questions so answers can be accessed by all.
- Restrict use of email to instructors for private correspondence.

R

- We use R.
- It is free and available on all common platforms.
- It is the standard statistical computing package in graduate programs in statistics.
- There is a learning curve, but the effort is worthwhile.
- Teaching effective use of R is a course objective, and we will take time to do it in lecture, homeworks, and discussion.

Syllabus

- The textbook is *The Analysis of Biological Data* by Michael Whitlock and Dolph Schluter.
- We will cover most material in the text and some material not in the text, *but the order we cover things will be quite different*.
- As we are making some significant changes from past years, the schedule of topics should be seen as tentative: we may need to make adjustments as we learn about the pace that works well.
- Lecture is the primary source of information for the course, but the text ought to be easy for you to read.
- We will expect a bit more mathematically and computationally than the textbook assumes.

Typical Lecture

A typical set of lectures on a topic will include:

1. A motivating set of data and biological question;
2. Graphs and numerical data summaries that illuminate the question;
3. A conceptual look at *The Big Picture*;
4. A detailed description of methods;
5. Application and interpretation for the example;
6. Details about R;
7. Flies in the ointment (and other concerns);
8. Extensions and further topics.

Homework

- Assignments are given on Thursdays, due the following Friday by 4pm in your TAs mailbox.
- Solutions are typically posted Monday afternoons.
- There is no homework due the week of midterm exams.
- You may drop two assignment scores (might be missing due to illness or other committments).
- You may *collaborate* on homework, but each student must write out their own solution.
- What you turn in must be neat.
- Do not simply turn in R output; answer questions in plain English.

Grading

Homework	20%
Midterm Exam 1	20%
Midterm Exam 2	20%
Final Exam	40%

- Course grades are based on the above percentages.
- There is no fixed grading scale, but indications of a scale will be given with each exam.