

## ST522-001 & ST522L: Statistical Theory II

**Lecture:** MWF 11:20-12:10pm, W 10:15-11:05pm  
**Classroom:** Broughton 3219  
**Instructor:** Hao (Helen) Zhang  
**Office Hrs.:** MW 10:00-11:00am (or by appointment), 216 Patterson  
**Course Page:** <http://www4.stat.ncsu.edu/~hzhang2/st522.html>

**Grader/TA:** Q Buckhart (she likes to be called "Q")  
**Office Hrs.:** TBA  
**Venue:** Patterson 9  
**Mailbox:** Patterson 314

### General Information:

- You MUST be enrolled in both ST522 and ST522L.
- **Prereq:** ST521 & MA511 (or MA425).
- **Textbook:** *Statistical Inference*, by George Casella and Roger L. Berger, 2nd Edition, 2001 Duxbury, ISBN 0-534-24312-6
- **Coverage:** Section 5.4, Chapter 6 – Chapter 10
- **Correspondence:** The preferred manner of correspondence is e-mail. Important announcements will be sent to the class via e-mail, so make sure that your e-mail address is registered with university's automatic mailing list. Requests for manual addition of e-mail addresses will not be entertained.

### Coverage and Course Objective

We shall cover Section 5.4 and most of the material in Chapters 6 through 10.

A primary objective of the ST521-2 course sequence is to present techniques and basic results of probability and mathematical statistics at a rigorous and advanced calculus level. In ST521 we developed the probabilistic tools and language of mathematical statistics. In ST522, standard statistical inference procedures will be covered, including the theory of estimation, confidence intervals, hypothesis testing and their asymptotic properties.

### Homework & Exams

- **Homework:** Homework is assigned weekly and due on Fridays (subject to adjustment if necessary). *Copying will disqualify you and will lead to disciplinary actions.*
- **Exams:** There will be one midterm exam and the final exam. Exams will be closed book, closed notes too, but you may use one formula sheet (two-sided) for the midterm, and two formula sheets for the final. The midterm will be based on the first half of the course while the final exam is comprehensive (covering all the material).

- Please arrange your travels based on the following scheduled exams NOW.

Midterm	Feb. 27 (Wed)	10:15-12:10pm	Chapters 5-7
Final	April 30 (Wed)	8-11 am	Chapters 5-10

- **Grading policies:**

Final Score = 20% Homework + 35% Midterm Exam + 45% Final Exam.

Plus/minus grading will be used for each grade level.

**Important Dates:**

- *No classes:* Jan 21 (MLK), March 3-7th (Spring Break), March 21 (holiday).
- *Exam dates:* Feb 27 (Midterm), April 30 (Final)

**Learning Tips:**

- Try to show up in all the lectures. Make good notes.
- Ask questions in class. Your questions may be others' as well. No questions are too elementary, and all deserve to be answered.
- Discuss with your classmates about your questions. It is perfectly acceptable to work together on homework assignments.
- Finish homework in time. If you run into problems, bring them up to me or TA as soon as you can.

**Integrity:**

University regulations require that every course syllabus remind students that the Code of Student Conduct defines a university policy on academic integrity already pledged by each student. Instructors assume that the students' names on their submitted work imply compliance with this policy. See <http://www.fis.ncsu.edu/ncsulegal/41.03-codeof.htm>