

## INSTRUCTOR DATA.

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## COURSE DATA.

Sections: 001 (“in-class”) and 601 (on-line)  
Pre-req’s: ST501 and preferably an applied course, e.g., ST511 or ST512  
Co-req’s: ST502  
Textbook: Faraway, *Linear Models with R*, 2nd ed.  
Faraway, *Extending the Linear Model with R* (on-line via NCSU library)  
Software: R, free to download at <https://cran.r-project.org>  
Lectures: Lecture videos will be posted on *Moodle*  
Weekly live sessions via *Zoom*, Tuesdays 8:30–9:45am  
TAs: (001) Mr. Qiang Heng, email: [qheng@ncsu.edu](mailto:qheng@ncsu.edu)  
(601) Mr. Chenyin Gao, email: [cgao6@ncsu.edu](mailto:cgao6@ncsu.edu)  
Office hours: with instructor, *TBA*  
with Gao, *TBA*  
with Heng, *TBA*  
Web: All of the course material will be on *Moodle*

COURSE CONTENT. ST503 focuses on the theoretical, methodological, and computational aspects of linear and generalized linear models. Topics include estimation via least squares and maximum likelihood, distribution theory, inference and prediction, model building strategies (e.g., diagnostic plots/tests and variable selection), and extensions to certain non-linear models. A more detailed outline is on the course website.

ASSESSMENTS. There will be “weekly” homework assignments, one midterm exam, and a cumulative final exam. More details about each below.

- *Homework.* These will be a mix of theory and applied/computational problems, mainly from the textbook. For full credit, sufficient work must be shown; for applied/computational problems, this includes providing the code and relevant output upon which your solution is based. Write-ups can be either typed (preferred) or handwritten; in either case, the presentation must be clear, organized, and submitted in electronic format on *Moodle*.
- *Exams.* Exams will be completed virtually; that is, students will receive the exam electronically, they will complete the exam on their own during the allotted time, and then upload their submission to *Moodle*. More details about the exam format and timing will be provided later. Tentatively, the midterm exam will be during

a window of time around *Tuesday, March 2nd*, and the final exam will be in some window of time around *Tuesday, May 4th*.

GRADES. Homework is worth 25%, the midterm exam is worth 35%, and the final exam is worth 40%. Grades will be assigned based on the rule:

$$\begin{aligned} A+ &\geq 96 > A \geq 93 > A- \geq 90 \\ B+ &\geq 86 > B \geq 83 > B- \geq 80 \\ C+ &\geq 76 > C \geq 73 > C- \geq 70 \\ D+ &\geq 66 > D \geq 63 > D- \geq 60 > F. \end{aligned}$$

The instructor reserves the right to make adjustments to the overall grading policy, but the letter grade cutoffs will be no stricter than those advertised above.

#### MISCELLANY.

- I'll communicate with the class using *Moodle*. Students should make sure their *Moodle* settings are such that they will receive email notifications.
- Students are expected to read the assigned material and watch all the recorded lectures. The weekly live sessions on *Zoom* are optional, but students should take advantage of this opportunity to interact with the instructor, to ask questions, etc. Recordings of these live sessions will be posted on *Moodle* afterwards. Students in both the 001 and 601 sections are welcome to attend these live sessions.
- No late homework assignments will be accepted, but the lowest homework score will be dropped.
- Disputes about homework/exam grading must be brought to the instructor's attention within *one week* after the grade is posted.
- Students may discuss homework with others, and the *Moodle* discussion board is a good place to do this. However, each student/group of students must submit their own independent write-up of the solutions. *Copying someone else's work—including on-line resources—and claiming it as your own is not acceptable and may result in disciplinary action.* The instructor is committed to upholding the university's policy on academic integrity, as described in the Code of Student Conduct.<sup>1</sup>
- Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Resource Office.<sup>2</sup> Any student who feels they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs.
- Students are responsible for reading, understanding, and adhering to the university's policies, regulations, and rules.<sup>3</sup>

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<sup>1</sup><http://policies.ncsu.edu/policy/pol-11-35-01>

<sup>2</sup><https://dro.dasa.ncsu.edu/>

<sup>3</sup><https://policies.ncsu.edu>