ST430: Introduction to Regression Analysis  
FALL 2015

Class meeting times and location: M,W 1:30-2:45PM, 00216 Mann Hall  
Course website: http://www.stat.ncsu.edu/people/xiao/courses/st430/  
Instructor: Luo Xiao  
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Office hours: T 12-2PM, 5242 SAS Hall  
Teaching assistant: Wei Li  
Email: wei_li@ncsu.edu  
Office hours: W 4:30-5:30PM Th 1:15-2:15PM, Tutorial Center, 1101 SAS Hall

Course prerequisites

ST305; basic knowledge of R is assumed.

Student learning outcomes

Regression analysis as a flexible statistical problem solving methodology. Students will gain considerable experience working with data. Data from examples and problems in the text are provided on a CD provided with the text. Students will use R or SAS, or other statistical software to do most homework assignments.

Required textbook


Course topics

1. Review of statistics  
2. Simple linear regression  
3. Multiple regression  
4. Model building and variable selection  
5. Residual analysis  
6. Logistic and non-linear regression  
7. Time series

Reading and homework assignments

Weekly. See the reading assignments and homework assignments pages of the course website.
Tests
You will take two in-class preliminary tests and one in-class final test. The first preliminary test will cover topics 1-3 and the second preliminary test will cover topics 4-5. The final test will cover all topics. Test questions will be similar to exercises on homework assignments. Schedule of tests will be announced later.

The tests are closed-book; for the preliminary tests, a single page (A4 paper; both sides) of hand-written notes is allowed for use in test; for the final test, two pages (A4 paper; both sides) of hand-written notes are allowed for use in test.

Grades
The course grade will be based on homework (20%), two preliminary tests (25% each), and the final test (30%). Homework and tests are graded for correctness. For the homework, group discussion is encouraged, but the homework must be your own individual work. For the homework grade, each homework assignment is evaluated at the 10-point scale and weights 2%; the top 10 grades of all your homework grades will be used for calculating the final homework grade.

Course grades will be rounded to the nearest %, and letter grades will be assigned on the basis A+ = 98-100, A = 93-97, A- = 90-92, B+ = 87-89, B = 83-87, B- = 80-82, and so on.

Auditors
are excused from the tests, but meet all other course requirements, including submission of homework.

Incomplete grades and late assignments
An incomplete grade will be given only in accordance with NCSU grading policy [http://policies.ncsu.edu/regulation/reg-02-50-03]. Homework will be accepted late only with prior approval from the instructor.

Attendance and absences
Full participation in classes and examinations is expected of all students. Students are expected to inform the instructor in advance about any anticipated excused absences. See the university attendance regulation [http://policies.ncsu.edu/regulation/reg-02-20-03] for university definitions of excused absences.

Academic integrity
1. NCSU has a policy on academic integrity, which you may find in the Code of Student Conduct [http://policies.ncsu.edu/policy/pol-11-35-01].

2. It is the understanding and expectation of the instructor that the student’s signature on any test or examination means that the student neither gave nor received unauthorized aid.

3. As noted above, you are encouraged to discuss the assigned homework problems. All homework and tests are submitted for grading and must be your own individual work.