

ST 744: Categorical Data Analysis

Spring, 2012

Textbook (required)	Categorical Data Analysis , by A. Agresti, 2nd Ed., Wiley
	We will cover most materials from chapter 1 to chapter 7 and some materials from chapter 10 to chapter 12.
Prerequisite	ST 512 “Experimental Statistics For Biological Sciences II” and ST 522 “Statistical Theory II” (therefore ST521 “Statistical Theory I” is also a prerequisite)
Class Hours	Tuesday & Thursday, 11:45 am - 1:00 pm
Location	Room 1216, SAS Hall
Instructor	Dr. Daowen Zhang 5122 SAS Hall Tel: 515-1933 Email: zhang@stat.ncsu.edu
Office Hours	3:00-4:00 pm Tuesday or by appointment
Teaching Assistant	Bo Liu Email: bliu4@ncsu.edu
TA Office Hours	TBA (will be put in class website once they are available)
Grading	Based on the weighted average (WA) of the following: Homework: 20% Mid-term (in class, closed book, notes & HW): 35%. It will be given sometime (3/1?) before Spring break (3/5-3/9). Students are allowed to bring a one-page note. Final (in class, closed book, notes & HW, comprehensive): 45%. Thursday, 5/10/2012, 8:00-11:00am. Students are allowed to bring a two-page note.

Grading chart

$97 \leq WA \leq 100$	A^+
$93 \leq WA \leq 96$	A
$90 \leq WA \leq 92$	A^-
$87 \leq WA \leq 89$	B^+
$83 \leq WA \leq 86$	B
$80 \leq WA \leq 82$	B^-
$77 \leq WA \leq 79$	C^+
$73 \leq WA \leq 76$	C
$70 \leq WA \leq 72$	C^-
$67 \leq WA \leq 69$	D^+
$63 \leq WA \leq 66$	D
$60 \leq WA \leq 62$	D^-
$0 \leq WA \leq 59$	F

Audit Students auditing the class should earn at least 50% of the homework score to get an **AU** grade (exams not required). Otherwise an **IN** will be assigned.

Course description This course will cover statistical models and methods appropriate for analyzing categorical responses. Special attention will be paid to the analysis of contingency tables, logistic and Poisson regressions, and their extension generalized linear models. Models for repeated categorical data will also be introduced. Asymptotic as well as exact methods and their implementation using statistical software **SAS** will be discussed.

Course objective Students in this class will be able to recognize different types of categorical data and use appropriate methodology for them. They will also be able to conduct statistical analysis using existing software and properly interpret the computer output.

Expectations:

- Students are expected to attend every class. However, not all details will be covered in class. So please read the book and ask questions whenever you have questions. If you decide to come to the class, please come on time. Your instructor and fellow students will appreciate it if their class is not interrupted.
- Homework will be assigned almost every week. Homework assignment turned in within one day (24 hrs) will be accepted, and assignment later than one day will NOT be accepted except for some emergency (e.g., medical) cases (but please do not make it a habit to turn in homework late). Students are encouraged to work together, but copying homework directly from others is strictly prohibited.
- Academic integrity: It is understood that a student's signature on any test or assignment indicates that the student neither gave nor received any unauthorized aid from anyone. More details can be found in the following website:
http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php