Syllabus – STOR 455

Fall 2010 (August 24 – December 8)
TuTh 2:00-3:15p
Coker 201

Instructor:	Jan Hannig	**Phone:**	(919) 962-7511
Office:	335 Hanes	**E-mail:**	jan.hannig@unc.edu
Office Hours:	Tu 3:30 – 4:30PM	**Course home page on**	
	We 10:30 – 11:30AM	http://www.unc.edu/~hannig/STOR455	
Teaching Assistant:	Jerome Yurchisin	**E-mail:**	jyurchis@email.unc.edu
TA Office:	B48 Hanes	**TA Office Hour:**	M 10:30 – 11:30AM

Required Text: Graybill and Iyer, REGRESSION ANALYSIS: Concepts and Applications. Available for free at http://www.stat.colostate.edu/%7Ehari/regression_book/index.html

Optional Text: Michael H. Kutner, Christopher J. Nachtsheim & John Neter, Applied Linear Regression Models, McGraw-Hill.

Course Outline: This course presents regression analysis and related techniques, and is recommended for students throughout the natural and social sciences who are interested in applying regression analysis in their research and/or understanding the statistical concepts underlying the methodology. The topics include simple and multiple linear regression, matrix representation of the regression model, statistical inferences for regression model, diagnostics and remedies for multicollinearity, outlier and influential cases, polynomial regression and interaction regression models, model selection, weighted least square procedure for unequal error variances, and ANOVA model and test. Statistical software SAS will be used throughout the course to demonstrate how to apply the techniques on real data. The main purpose of this course is to let students know how to use regression methods properly in data analysis and lay the foundation for more advanced studies in statistics.

Prerequisites: STOR 155 or equivalent. Some familiarity with matrix algebra recommended, but not required.

Assessment: Your grade will be based on two midterm exams (40% of the grade) a project (10% of the grade), a final exam (30% of the grade) and homework sets (20% of the grade).

Important dates:

Final Exam:	see the published university schedule
Midterm exam:	Tuesday, September 28
	Tuesday, November 2
Homework:	Homework sets will be usually assigned every Thursday and due next week at the beginning of the class. Late/missed homeworks will receive a grade of zero.
Last Day to Drop:	Monday, October 18

Exams: Exams will be multiple choice and entirely closed book, closed notes. Missed exams will receive a grade of zero. Any student needing to be excused from the final exam due to the 3 Final Exams in 24 hour period rule must bring a written Dean's Excuse and discuss the situation with the instructor at least 3 weeks prior the end of the semester.

Homework: Problems will be posted on Blackboard and will be due in a week at the start of the class. **No late homework will be accepted.** You are allowed to work with other students on the homework problems; however, verbatim copying of homework is absolutely forbidden and constitutes a violation of the Honor Code. Therefore, each student must ultimately produce his or her own homework to be turned in and graded. You are also encouraged to ask me for help on homework problems after attempting to solve the problems on your own.

Blackboard: You will need to provide your ONYEN and PASSWORD in order to login at Blackboard. Once you are in Blackboard, go to our course site entitled FALL 2010 STAT METHODS I.STOR455.001. Homework assignments and important announcements will be posted there. *Visit the web page regularly.*

Computing: The course includes an extensive practical computing component. The main software package I will use in this course is SAS. It is your responsibility to get hold of the package and to familiarize yourself with its basic features, but I will help you to get started. You have two main options:
(1) Use a university owned Windows computer. (2) Use your PC with SAS installed. For most students, this is the more convenient option. You can install SAS yourself on your own personal machine, using CDs that you can obtain from ATN. To find out the procedures for this, send an email to the Software Acquisition Office, software@unc.edu. The corresponding web page is http://www.unc.edu/atn/software/ To renew your license, visit http://help.unc.edu/?id=5546
An excellent introduction to SAS is The Little SAS Book by Delwiche and Slaughter, available through the Campus Store. The textbook also has a SAS manual available at http://www.unc.edu/~hannig/STOR455/SAS%20Lab%20Manual.pdf .

Note: The Honor Code will be observed at all times in this course. This course will participate in the Carolina Course Evaluation. Each student should feel comfortable approaching the Instructor with any concerns he/she has with the course. If there is a concern which cannot be resolved with the Instructor or with which the student does not feel comfortable approaching the Instructor, you may confidentially contact the Director of Undergraduate Studies at the STOR Department: Prof. Kelly, 336 Hanes Hall, 962-9609. For all questions on registration, contact Charlotte Rogers, 321 Hanes Hall, 962-2307, crogers@email.unc.edu.

The instructor reserves the right to make any changes he considers academically advisable. It is your responsibility to attend classes and keep track of the proceedings.