Syllabus

General Information
Instructor: Yili Hong, PhD
Office: 213 Hutcheson Hall; Phone: 540-231-9710; Email: yilihong@vt.edu
Class time and place: TR 9:30am-10:45am; Hutcheson 207
Office hours: M: 9am-11am, T: 3pm-5pm, or by appointment.

Resources
Course webpage: https://scholar.vt.edu/portal

Description
This is primarily a theory course, covering the inner workings of the distributions, estimations, and hypothesis testing procedures used in regression and analysis of variance. The material is fundamental to a proper understanding of how software packages perform and report these statistical methods; for instance, for what SAS is doing with Proc Reg, Proc GLM, and even parts of Proc Logistic, Proc Catmod, and Proc Genmod. A thorough knowledge of solving linear equations is needed, which is the topic of chapter 2. Chapters 4 and 5 concentrate on distributions of linear combinations and quadratic forms involving normal random variables. Chapter 6 onward will examine myriad aspects of the general linear model, including the estimation, hypothesis testing and confidence interval procedures for multiple regression, one-way analysis of variance. We will also cover linear mixed models if time permits.

Evaluation
- Letter grade will be given based on homework (25%), the first mid-term (20%), the second mid-term (20%), and the final exam (35%).
- Homework: Biweekly. Turn them in at the beginning of the class on the date it is due. NO late homework will be accepted.
- First Mid-term: close-book, in-class, Thursday, February 26th.
- Second Mid-term: close-book, in-class, Thursday, April 16th.
- Final exam: close-book, comprehensive, scheduled for Tuesday, May 12th, 10:05am-12:05pm.

Academic Integrity
Students are expected to abide by Virginia Tech’s Community Standard for all work for this course (http://www.honorsystem.vt.edu/). Violations of the Standard will result in a failing final grade for this course and will be reported to the Dean of Students for adjudication. Ignorance of what constitutes academic dishonesty is not a justifiable excuse for violations.
Special Accommodation

As supported by Virginia Tech’s Principles of Community (http://www.vt.edu/diversity/principles-of-community.html), all students will be treated equally. Those with special needs can be accommodated and should refer to the website http://www.ssd.vt.edu/ for specific questions.