Instructor: Dr. Anh T. Bui

Contact Information: Office: Grace Harris Hall 4132; Phone: 804-828-1942; Email: buiat2@vcu.edu

Office Hours: Tue 2-3pm & Thu 1-2pm in my office.


Class time and location: MW 2:00pm-3:15pm at Grace Harris Hall 2127

Prerequisite: Basic probability and statistical inference, e.g., STAT 305 or with my permission.

Course Description: The course provides an introduction to statistical inference methods that require relatively mild assumptions about the population distribution. Classical nonparametric hypothesis testing methods (e.g., one-, two-, and multiple-sample methods), association, and extra topics (such as bootstrap, density estimation, and nonparametric regression) will be covered. This course is mainly application-driven. Students are required to use statistical software R for in-class practice and assignments, but no prior knowledge of R is required.

Grading Policy: Homework (25%), Take-home exam (25%), Midterm in-class exam (25%), Final project (25%), and Class participation.

Tentative Grading Scale:

- A: 90-100
- B: 80-89
- C: 70-79
- D: 60-69
- F: 0-59

Homework Assignments: This course has five homework assignments in total. Many homework problems require R for statistical computing. Some problems require descriptions and comments on some results. Homework assignments are due at the beginning of the classes on the due dates. Late submission will not be accepted. You are encouraged to discuss on homework assignments, but you must write your own solutions.

Take-home Exam: There will be a take-home exam. Tentatively, the take-home exam will be assigned on Sep 18 and due on Sep 25. Late submission will not be accepted.
In-class Exam: There will be an open book/note in-class exam. This exam is tentatively scheduled on Oct 23.

Final Project: The project is done in a group of three to four students. You address some questions that interest you with a statistical method(s) that you learn in this course and possibly other courses. Examples of the topics include psychology, sociology, natural science, medicine, public policy, sports, law, etc., but will need my approval. Detail will be discussed during the semester. Some milestones are below:

- Appointment with Instructor to discuss the project (2 points)
- Project proposal (5 points): due on Oct 2
- Preliminary results (5 points): due on Nov 18
- Presentation (5 points): 25 mins including Q&A on Dec 2 and 4
- Peer-evaluation (3 points): each group evaluate other groups’ presentations; due on Dec 6
- Final report (5 points): due on Dec 13

VCU Statements: Students should visit http://go.vcu.edu/syllabus and review all syllabus statement information. The full university syllabus statement includes information on safety, registration, the VCU Honor Code, student conduct, withdrawal and more.

This syllabus is subject to change at any time at the discretion of the instructor.