STA 5168: Statistics in Applications III

Course description: This course will focus on methods for statistical inference for discrete or ordinal data, as well as miscellaneous topics in applied statistics. Topics include: inference in two-way and muti-way contingency tables; generalized linear models; logistic regression for categorical data; quasi-likelihood and estimating equations, etc.

Prerequisite courses: Students should possess a background that includes regression and analysis of variance models, as well as the statistical theory of maximum likelihood methods.

Lecture: 12:30–1:45 PM, Tuesday & Thursday, Zoom links on Canvas. In case that you are not in the Tallahassee area, the times referred in this course (including the meeting times and deadlines of homework assignments and projects) are all in Eastern Time.

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Class Website: https://fsu.instructure.com/.

Textbook: *Categorical Data Analysis* (3rd Edition), by Alan Agresti, John Wiley and Sons, 2013.

Homework: There will be about five homework assignments. They should be submitted online via Canvas. You are strongly encouraged to prepare your answers using LaTeX (preferred) or Word; photos of handwritten answers are also acceptable. Please compile all answers in a single PDF file for each homework assignments for facilitating the grading. Policy on homework: Unless otherwise directed, you may discuss homework problems with other students according to the following policy: No student should ask for or offer assistance from any other student until that student has made a serious effort to solve the problem. After such an effort has been made, then students may seek help from the instructor, fellow students or others. Appropriate cite all sources that provided significant aid in your solution. All work must be written up individually. Late homework will not be accepted unless prior arrangement has been made with the instructor.

Exams: There will be one midterm project and one final project. You will be permitted to refer to any course materials, but should not discuss with others. Both projects will be conducted remotely; they should be submitted online via Canvas (similar to the homework assignments). Tentative schedules are as follows.
- Midterm project: 8 AM – 11:59 PM, Tuesday, October 13

- Final project: 8 AM – 11:59 PM, Thursday, December 3

There will be no makeup projects. If you must miss one, please notify the instructor as early as possible.

Final grade: It will be determined by a weighted average of the following items: (1) homework 30%; (2) midterm project 35%; (3) final project 35%. The overall percentage will correspond to grades as 90–100 = at least A or A-, 80–89 = at least B- to B+, 70–79 = at least C- to C+, 60–69 = at least D- to D+, < 60 = F. Final grades may be adjusted.

Course Policies
- Attendance: You are required to attend all classes, either synchronously or asynchronously. The class activities will help you assimilate the lessons more easily, giving you an opportunity for active learning. Do not let this opportunity slip away.
- Collecting returned homework/project: It is the student's responsibility to retrieve his or her homework/project whenever they are returned and to check grades on the class website. If you notice any mistake in recording grades, please inform the instructor about it as soon as possible but no late than one week from grades been posted online.
- Homework re-grade: You have one week to request a re-grade of a homework from the date on which the graded homework is available to the students of the class. Submit a written request detailing the nature of the grading error to the instructor along with the relevant homework.
- Contacting the instructor or TA outside the class time: You are encouraged to make an appointment if you have any questions about the course materials. You may ask the instructor or TA brief questions by e-mail; if the questions are better answered in person, please schedule a Zoom meeting with the instructor or TA. When you send e-mails remember the following: always send e-mails from your FSU accounts. The e-mails from non-FSU accounts may not reach me due to filters. Please always write your full name at the end of each e-mail message you send.
- Academic honor policy: The Florida State University Academic Honor Policy outlines the University expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "… be honest and truthful and … [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy)
- Students with disabilities: Students with disabilities in need of academic accommodation should: 1. Register with and provide documentation to the Student Disability Resource Center; 2. Bring a letter to the instructor indicating the type of accommodation needed. This should be done during the first week of class. See https://dos.fsu.edu/sdrc/ for more information.