

COURSE SYLLABUS

STA 695 Special Topics Course: Bayesian Analysis and Bayesian nonparametric methods, SPRING 2019

Class Time: MW 4:00pm-5:15pm

Location: Multi-Disciplinary Science Bldg Rm.335

Instructor:

Name: Ya Su

Office Address:

Department of Statistics,
University of Kentucky,
Multidisciplinary Science Building, Room 315

Email Address: ya.su@uky.edu

Office Hours: MW 11am-12pm or by email appointment

Course Description

Tentative topics include:

Fundamentals of Bayesian Inference, Fundamentals of Bayesian Data Analysis, Advanced Computation, Nonparametric models

Prereq: STA 623, STA 624 (Markov Chain Monte Carlo).

Textbook

Bayesian Data Analysis, Third Edition, CRC Press

Course Requirements

1. Class participation is critical to the success of students, and it adds to the success of the course. Participation includes attending and being prepared for class, involving yourself in class discussions and activities, assuming responsibility for your own learning, and contributing to the learning of others.
2. Classroom decorum is important to a conducive learning environment. Being respectful of your classmates and instructors includes engaging in civil discourse when we discuss topics that have a diversity of perspectives; silencing your cell phone; not texting; and other behaviors outlined in class.
3. Complete and submit assignments as directed by designated dates and times.
Assignments that are submitted past due are not accepted.

Grading Policy

Quiz 30% + Class Participation 30% + Course Project 40%

Quiz:

- Pop-up quizzes that reflect basic understanding
- Closely related to class materials

Class participation includes:

- Prepare and explain examples/present reading materials
- Ask and answer questions that reflect thinking

Final course project:

- Requires at least a simulation-based analysis
- Data sets will be given from me
- A project report and an in-class presentation are required

Excused Absences and Verification (University Senate Rule 5.2.4.2)

"Students need to notify the professor of absences prior to class when possible. A student shall not be penalized for an excused absence. The following are defined as excused absences:

- A. Significant illness of the student or serious illness of a member of the student's household (permanent or campus) or immediate family. The Instructor of Record shall have the right to request appropriate verification.
- B. The death of a member of the student's household (permanent or campus) or immediate family. The Instructor of Record shall have the right to request appropriate verification. For the purpose of this rule, immediate family is defined as spouse or child or parent (guardian) or sibling (all of the previous include steps, halves and in-laws of the same relationship); and grandchild or grandparent.
- C. Trips for members of student organizations sponsored by an educational unit, trips for University classes, and trips for participation in intercollegiate athletic events, including club sports registered with the university as well as varsity sports. When feasible, the student must notify the Instructor of Record **prior to** the occurrence of such absences, but in no case shall such notification occur more than one week after the absence. Instructors of Record may request formal notification from appropriate university personnel to document the student's participation in such trips.
- D. Major Religious Holidays. Students are responsible for notifying the Instructor of Record **in writing** of anticipated absences due to their observance of such holidays no later than the last day for adding a class.
- E. Any other circumstances which the Instructor of Record finds reasonable cause for absence."

Recording in the Classroom

Video and audio recordings are not permitted during the class unless the student has received prior permission from the Professors. If permission is granted, recording of other students is prohibited. Any distribution of recordings is also prohibited. Students with specific recording accommodations approved by the Disability Resource Center should present their official documentation to the professor. All content for this course, including handouts, assignments, and powerpoint lectures are the intellectual property of the instructors and cannot be reproduced, sold, or used for any purpose other than educational work in this class without prior permission from the professor.

Title IV information

To comply with the new Title IV regulation, faculty will be required to report students for non-attendance/non-participation/non-engagement through the class roster in MyUK. Once a student is marked for non-attendance/non-participation/non-engagement in the class roster, the student will be dropped from the class and from CANVAS with a grade symbol "NA". The student, faculty member, and advisor will be notified of the drop action via the ACT platform. If an undergraduate student drops below full-time, financial aid disbursement will be reduced. The drop will result in a 50% refund to the student. Courses dropped for non-attendance/non-participation/non-engagement will not appear on the student's transcript. If a student is adversely or unfairly impacted by the new requirements and forced to withdraw from a class, the student may seek relief through the tuition appeals process.

To summarize,

- The monitoring period will be from August 29 to September 5
- The reporting period will be from September 6 to September 12
- Instructors should report non-compliant students on the class roll accessed through MyUK

Title IX Information

Students who have experienced sexual harassment (including sexual assault, dating violence, and stalking) or gender-based discrimination may file a report with the Office of Institutional Equity and Equal Opportunity. If a student discloses sexual harassment to a UK employee (staff, faculty, and some student leaders such as RA's, Peer Instructors, TA's, etc.), the employee is obligated to report the incident to the Office of Institutional Equity and Equal Opportunity (859-257- 8927). Students are not required to report incidents to the Office of Institutional Equity and Equal Opportunity in order to utilize University support services. Students may contact the Counseling Center (859-257-8701) and/or Violence Intervention and Prevention Center/VIP (859-257-3574) to obtain assistance confidentially.

Academic Integrity

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on his or her record, more serious penalties, up to suspension from the University, may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in Student Rights

and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty.

Part II of *Student Rights and Responsibilities*

(<http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Accommodations Due to Disability

If you have a documented disability that requires academic accommodations, please see me as soon as possible. To receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (location: 407 Multidisciplinary Science Building; phone: 257-2754; email: dtbeac1@uky.edu) for coordination of campus disability services available to students with disabilities.