STT 465: Bayesian Statistical Methods, Fall 2016

Instructor: Gustavo de los Campos, 909 Fee Road, Room B637

Email: gustavoc@msu.edu

Time/Place: MW 10:20am - 11:40am A120 Wells Hall (WH)

Websites:

Lab: http://quantgen.github.io/

Course website: https://github.com/gdlc/STT465

Office Hours: MW 9:00am-10:00 am Wells Hall (office TBA)

Textbook (required): A First Course in Bayesian Statistical Methods, Peter D. Hoff, Springer.

Prerequisites: STT 442 or equivalent courses.

Grading: Final grades will be based on homework (30%), one in class exam (40%) and one final project (30%).

Score (5)	<50	50-59	60-69	70-74	75-79	80-84	85-89	≥90
Grade	0	1	1.5	2	2.5	3	3.5	4

Course Description:

This course will provide an introduction to Bayesian inference, including both the underlying principles as well as the methods and algorithms commonly used for data analyses. We will cover chapters 1-7, 9-10 and 12 of the required textbook. Examples will be primarily implemented in R (http://www.r-project.org).

Each class will include lecture (discussion of important concepts) and applications/examples mostly implemented in R. The code we generate in class will be uploaded to the course website (https://github.com/gdlc/STT465). Although I will upload slides for the lectures, most of the derivations will be done in the board; therefore, you are expected to take notes and ask questions whenever a derivation or concept is not clear.

The evaluation will include homework, a midterm and a final project. You are welcome to collaborate for HW. However, each student is required to present an individual and sufficiently unique report for HW. The evaluation for the midterm will be in class and strictly individual. Final projects will be individual and can involve developing software for implementing a particular algorithm, simulations or

real data analysis.

Academic Honesty: The Department of Statistics and Probability adheres to the policies of academic honesty as specified in the General Student Regulations 1.0, Protection of Scholarships and Grades, and in the All-University of Integrity of scholarship and Grades which are included in Spartan Life: Student Handbook and Resource Guide. Students who plagiarize will receive a grade 0.0 on the homework, exam or quiz.

ADA: To arrange for accommodation a student should contact the Resource Center for People with Disabilities at http://www.rcpd.msu.edu/ or (517)353-9642

Disclaimer: Changes on the syllabus/important dates will be announced in class and on the course web site. It is students' responsibility to keep up with any changed policies and assignments.