

EXST 7151 - Bayesian Data Analysis

Fall 2025

Time & Location:

Monday & Wednesday 9:30 ~ 10:50am

Instructor:

BeiBei Guo

Office: 61 Woodin Hall

Email: beibeiguo@lsu.edu

Lectures:

Join Zoom Meeting

<https://lsu.zoom.us/j/96989414450?pwd=3PhpiY8oXYn4bb7oFRY73qv6mYx6QT.1>

Meeting ID: 969 8941 4450

Passcode: 7151

Course Notes:

These will be posted on moodle during the semester. They will become available before each lecture.

Textbook: (recommended, not required):

John K. Kruschke. Doing Bayesian Data Analysis: A Tutorial with R, JAGS, and Stan

Peter D. Hoff. A first course in Bayesian statistical methods, Springer

e-book: <http://link.springer.com/book/10.1007%2F978-0-387-92407-6>

Major topics:

Bayes rule; Bayesian inference for single-parameter models; Bayesian inference for multiple-parameter models; Bayesian hypothesis testing; Markov chain Monte Carlo; Hierarchical models; Regression models

Homework:

Assignments are due one week after they are given out.

Grading Policy:

Midterm project and presentation 30% (Oct 27 & 29)

Final project and presentation 40% (Dec 1 & 3)

Homework 30%

Grading Scale:

Standard grade scale shown in moodle.

This syllabus is subject to change. Changes, if any, will be announced in class and by email.