

SPRING 2019 COURSE ANNOUNCEMENT

STAT 544 – Bayesian Data Analysis

Instructor: David Patterson, david.patterson@umontana.edu

Time: 12-1 MWF, Math 211

Text: Statistical Rethinking, A Bayesian Course with Examples in R and Stan, by Richard McElreath (2016)

Prerequisite: Stat 452 or Stat 422 or equivalent. Familiarity with R will be very helpful.

This is an introduction to modern Bayesian data analysis. No previous experience in Bayesian methods is assumed. The text is written at a more accessible level than most of the standard references: the author says “This book is not a reference, but a course.” It emphasizes understanding as well as implementation. It is not a cookbook nor just a manual on how to use software to fit Bayesian models. We’ll work through this book chapter by chapter. I’m not sure how far we’ll get, but certainly through multilevel models and Markov Chain Monte Carlo.