## 2023 ASA Traveling Course Hosted by the Southern Ontario Toronto Chapter

# Introducing Bayesian Statistical Analysis into Your Teaching

Friday, October 13th, 2023 9:00am – 4:00pm EDT **Online Course** 

### **Presenters**

Jingchen (Monika) Hu, Associate Professor of Statistics, Vassar College Kevin Ross, Professor of Statistics, California Polytechnic State University

#### **Description:**

Bayesian statistical methods are becoming increasingly popular in a wide variety of modern applications. This workshop provides resources and support for statistics educators to incorporate aspects of Bayesian statistics in their teaching. Through a series of detailed classroom-ready examples and hands-on activities, including exercises in R, participants will learn how to introduce Bayesian ideas into existing statistics courses at each of the introductory, intermediate, and advanced undergraduate levels. We will also give participants some hands-on experience with conducting Bayesian statistical analysis in R, including regression and hierarchical models. We will share our experiences of incorporating Bayesian ideas in our own teaching, and provide some suggestions for best practices. No previous experience with Bayesian statistics is necessary. This will be a full day virtual workshop held on Friday, October 13.

#### **Agenda**

Morning session (9am-12noon) will focus on incorporating Bayesian elements in introductory statistics courses.

- Module 1: Introduction to Bayesian reasoning
- Module 2: Bayesian inference and prediction

<u>Afternoon session</u> (1-4pm) will focus on incorporating Bayesian elements in intermediate and advanced undergraduate courses.

- Module 3: Bayesian regression
- Module 4: Bayesian hierarchical models

#### **About the Instructors:**

<u>Jingchen (Monika) Hu</u> is an Associate Professor of Statistics at Vassar College. She teaches an undergraduate Bayesian course at Vassar, which is also shared across several liberal arts colleges. She is the co-author of Probability and Bayesian Modeling, an undergraduate textbook on Bayesian inference.

<u>Kevin Ross</u> is a Professor of Statistics at Cal Poly. He has taught the course Bayesian Reasoning and Methods (STAT 415) at Cal Poly every year since 2019. His research interests include probability, statistics, and data science education.

**Please Register @ Eventbrite:** 

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