

# Rocky Mountain Methodology Academy 2024

July 16 - July 27, 2024

The Canadian Centre for Research Analysis and Methods hosts its annual Rocky Mountain Methodology Academy in Calgary, Alberta, Canada. Choose from nine courses taught by experts in social science data analysis and research methods. Between sessions and after class, explore Calgary and the Canadian Rockies and attend additional lectures and workshops.



#### Session 1: July 16-17, 2024

### Introduction to Structural Equation Modeling DR. DOUG BAER, PHD (UNIVERSITY OF VICTORIA)

This course introduces the fundamentals of Structural Equation Modeling as a general analytical tool, including how to set up measurement and structural models, latent variables, path analysis, definitions and quantification of model fit and the implementation of Structural Equation Modeling in statistical software.

### Introduction to Social Network Analysis DR. JENNY GODLEY, PHD (UNIVERSITY OF CALGARY)

Social network analysis examines the patterning of relationships between individuals and groups to understand social action. This short course will cover the design, collection, analysis and interpretation of both whole and ego-centred network data.

#### Session 2: July 19-20, 2024

### Scale Development and Psychometrics DR. JESSICA FLAKE, PHD (MCGILL UNIVERSITY)

Researchers need to thoroughly evaluate the validity scale scores as they are often used to make decisions like how to measure critical outcomes in a research study, develop a product, or admit a student or promote an employee. This course will cover how to develop, evaluate and refine scales using modern psychometric methods.

### Introduction to Multilevel Modeling DR. JASON RIGHTS, PHD (UNIVERSITY OF BRITISH COLUMBIA)

This course provides an introduction to multilevel modeling, with a focus on its application within the social, education, health and business sciences. Participants will learn fundamental statistical principles underlying multilevel modeling, a variety of techniques and methods that can be used in many different research contexts and how to appropriately specify models and interpret results in practice.

#### Session 3: July 22-23, 2024

## Introduction to Mediation, Moderation and Conditional Process Analysis DR. ANDREW F. HAYES, PHD (UNIVERSITY OF CALGARY)

Mediation analysis, moderation analysis, and their integration as conditional process analysis are among the most widely used data analysis techniques in the social sciences. In this course, you will learn about the underlying principles and the practical applications of these methods using ordinary least squares regression analysis and the PROCESS macro for SPSS, SAS and R invented by the course instructor.

### Longitudinal Data Analysis and Visualization DR. ANDREA HOWARD, PHD (CARLETON UNIVERSITY)

Data are often collected longitudinally, meaning the same variables are measured repeatedly over time, with the goal of understanding how variables change within and between people over time. This course provides a broad overview of various methods of quantifying, modeling and visualizing change in variables over time and how to test hypotheses about intraindividual and interindividual change.

#### Session 4: July 25-26, 2024

#### Mediation, Moderation, and Conditional Process Analysis: A Second Course DR. ANDREW F. HAYES, PHD (UNIVERSITY OF CALGARY)

This is a continuation of the course offered in session 3 and covers more advanced topics including parallel moderated mediation, mediation and moderation with multicategorical variables, serial moderated mediation, creating custom models in the PROCESS macro, and other applications of the fundamentals discussed in the first course.

### Latent Profile Analysis DR. MATTHEW MCLARNON, PHD (MOUNT ROYAL UNIVERSITY)

Latent profile analysis is a family of statistical models that can be used to identify unobserved, heterogenous and qualitatively distinct subgroups in one's data. This course will provide participants with the theoretical and conceptual background and applied analytical skills needed to specify an appropriate analytical model, interpret the results and thoroughly address research questions using Latent Profile Analysis.

### Introduction to Mixed Methods Research DR. CHERYL POTH, PHD (UNIVERSITY OF ALBERTA)

Mixed methods research requires specific integration of knowledge and skills that also leverage existing qualitative and quantitative skills. Participants in this course will learn how to distinguish credible mixed methods research and have opportunities to ask questions about recent integration practice advancements. Discussions of the many perceived (and real) integration challenges when designing, executing and disseminating mixed methods research will provide foundational understandings for participants to engage in the design of their own mixed methods research projects.

#### **Additional events:**

**Keynote Speaker: July 18**Dr. Jessica Flake, McGill University

**Guest Lecture: July 18** 

Dr. Tenko Raykov, Michigan State University

Workshop: July 24

Dr. Piers Steel, University of Calgary; Using Generative Al in Academic Research

#### Register now! Seats are limited.

To register for courses and for more information, visit <a href="https://haskayne.ucalgary.ca/CCRAM/academy">https://haskayne.ucalgary.ca/CCRAM/academy</a>

Your registration received by **May 15, 2024**, includes a day trip by chartered bus to the world-famous and beautiful town of Banff in the Canadian Rockies. All courses will take place on the main campus of the University of Calgary.

## The more courses you attend the more you save!

→ Courses are \$895 (CAD) each + 5% GST

→ Enroll in 2 courses: \$1.695 - SAVE 5%

→ Enroll in 3 courses: \$2,395 - **SAVE 10%** 

→ Enroll in 4 courses: \$2,995 - **SAVE 15%** 

→ Graduate students are eligible for an additional 10% discount

