

Introduction to Structural Equation Models

This course introduces the fundamental methods of Structural Equation Modeling (SEM), a set of statistical techniques used to examine complex relationships among observed and latent (unobserved) variables. Emphasizing practical application, the course explores how SEM and related latent variable methods can be utilized to investigate important empirical questions across various disciplines. Through lectures, readings, and hands-on assignments, students will develop both conceptual understanding and applied skills. By the end of the course, students will be equipped to critically evaluate SEM research and conduct independent SEM analyses.

Course Outline

- Introduction to SEM
- Basic Concepts in SEM
- Path analysis
- Multiple indicators of latent variables
- Exploratory factor analysis
- Confirmatory factor analysis
- Goodness of fit measures
- Structural relations among latent variables
- Alternative estimation methods.
- Multiple group analysis
- Models for ordinal and nominal data