The Boston College Committee on Statistics and Methodology
is pleased to announce
the second colloquium in its
Statistics and Methodology Workshop Series[i]

STRUCTURAL EQUATION MODELS: BASIC AND ADVANCED TOPICS

Professor Mike Rovine, Penn State Methodology Center, Penn State University, will present introductory and advanced topics lectures on Structural Equation Models. The basic workshop will be held Thursday May 10th and Friday May 11th. The advanced workshop will be held beginning Monday afternoon May 14th and will conclude Wednesday May 16th in the early afternoon. You may sign up for both workshops, or individually for each.

Workshop description

The basic workshop will include the following topics

1. Basics and logic of path analysis
- Path analysis as observed variable regression
- Drawing path models
- Direct, indirect, and common cause effects
- Path analysis as a structural equation model
  - The Beta and Psi matrices
- Covariance structure implied by a path analysis
- Accounting for the covariance structure - fit of the model
- Diagnostics for assessing the model

2. Confirmatory factor analysis
- Difference between exploratory and confirmatory factor analysis
- The confirmatory factor model
  - Relationship to regression
  - Drawing the model
  - The parameters of the model
    - The Lambda, Phi, and Theta matrices
  - Assessing the model - fit statistics, other diagnostics

3. Structural regression with latent models
- Combining confirmatory factor analysis with path analysis
- Covariance vs correlation matrices - scaling the model

The advanced workshop will include the following topics:

1. ANOVA as a structural equation model
2. The general linear mixed model as a structural equation model
- What is the general linear mixed model (GLMM)

- The GLMM in PROC MIXED and HLM
- Translating the GLMM into SEM: fixed and random effects
- Repeated measures ANOVA
- Patterning residual covariance matrices in repeated measures ANOVA

All faculty, students, and other members of the Boston College research community are welcome to attend. Attendance, however, is limited to 35 participants. Registration is required and will be handled through email notification to committee member Penny Hauser-Cram at hausercr@bc.edu. Registration will not only reserve a seat, but will also cover material distribution and coffee breaks. Participants must provide their own lunches.

The deadline for registration is **Friday, May 4th**. A wait list will be generated if needed. An agenda and seminar material will be sent to registered participants prior to May 10th.

To register, please respond to this note. Delete up to this point and complete the following questions:

Name: _____

Department: _____

EMAIL: _____ PHONE: _____

Rank:
( ) graduate student
( ) faculty
( ) research associate

Attendance:
( ) both workshops
( ) just the basic workshop
( ) just the advanced workshop