ANALYSIS OF LONGITUDINAL DATA

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Course Objectives

Students who complete this course will have the ability to:

- prepare graphical or tabular displays of longitudinal data that effectively communicate the patterns of scientific interest;
- use a general linear model to make scientific inferences about the relationship between response and explanatory variables while accounting for the correlation among repeated responses for an individual;
- use marginal, random effects, or transitional generalized linear models to make scientific inferences when the repeated observations are binary, counts, or non-Gaussian continuous observations
- use SAS or STATA to conduct the appropriate longitudinal data analyses

Course Outline

- Introduction
- Exploring longitudinal data
- General Linear models for longitudinal data
- Generalized linear models for longitudinal data
- Marginal Models
- Random Effects models
- Transition Models