ANALYSIS OF LONGITUDINAL DATA
Instructor: Francesca Dominici

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