Advanced Survey Sampling Methods (BIOS 764)
Spring 2015

• COURSE DESCRIPTION (3 credit hours)
The course introduces central ideas in survey sampling from the unified perspective of unequal probability sampling. The first half focuses on estimation and inference for a list of commonly used sampling designs; the second half focuses on model assisted approaches in the derivation of estimators via the use of auxiliary variables. Other topics to be discussed include methods for non-responses and measurement error models.

• MEETING TIME 11:15-12:30, Monday and Wednesday @ Room MCG1304

• TEXTBOOK
  – Model Assisted Survey Sampling, Sarndal, C., Swensson, B. and Wretman, J. 1992

• INSTRUCTOR
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  Office hours: 1-2 Wednesday or by appointments

• GRADING SYSTEM
  There will be a few homework assignments and a final project. The final project can be a comprehensive review of recent survey methods, the use of advanced method in analysis of some survey data, or some motivating research developed from this class. You are encouraged to discuss the final project with me by the end of March. Your final grade will be based on the performance of the homework and the final project.

• OTHER INFORMATION
  – Teaching will be mostly based on the use of the projector, sometimes with the help of chalkboards or handouts. The slides for teaching will be sent to you electronically.