

Sampling Theory

SURV 440, Fall 2011

Class Time: 1:00pm – 3:30 pm, Wednesdays

Class Room: I will teach the class from Census Bureau Training Room 10 or the Bureau of Labor Statistics Conference Center Room 10 using two-way video technology.

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Reference Book: Särndal, C.E., Swensson, B. and Wretman, J. (1992), Model Assisted Survey Sampling, Springer-Verlag, ISBN 978-0-3-8740620-6

Class Web Site: <http://www.jpsm.umd.edu/surv440>. The lecture notes, assignments, final take-home exam and their solutions will be posted on the class website. Students are asked to print a copy of the notes before coming to the class. It is the student's responsibility to check the website for additional readings, homework, and other important information.

Course Description: The purpose of the class is to provide the students with theoretical background in survey sampling. We shall cover a wide range of sample designs and estimation techniques used in practice, including simple random sampling, sampling with varying probabilities of selection, stratification, systematic sampling, cluster sampling, double sampling, stratification, single-stage and multi-stage cluster samples, ratio and regression estimators, and double sampling.

Prerequisite: STAT 401 or STAT 420 or equivalent

Grading Policy: The final course grade will be based on a composite score based on four assignments (15% each), one comprehensive take-home final exam (20%), and a term paper involving Monte Carlo simulation (20%).

Important Dates:

Final exam will be handed out on December 7, 2011 and will be collected on December 15, 2011

Deadline for the term paper submission: 5PM, Wednesday, December 7, 2011