Syllabus
STT 825
Sampling Theory
Fall 2013

Professor Raoul LePage
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Office hours Tu Th 11:30-1:00 C428 WH or by appt.

Course grade will be based on the 50-50 average of

(a) your homework average grade (all HW is graded to 4.0 scale);
(b) your average grade for three in-class closed book exams.

HW is due about every other week. Here are dates for the exams

W September 18, 2013
W October 30, 2013
M November 25, 2013 (note, Monday)

This course will not have a comprehensive final examination.
Instead, a meeting open to the class is scheduled for Thursday 12-12-13, 10:00-12:00 noon in the classroom A218 WH, at the time and place of, and in lieu of, the registrar’s published final exam period. Students attending will have the opportunity to ask questions and share ideas about any aspects of the course, sampling, and statistics in general. You are not obligated to attend the meeting which will have no bearing on course grades.

The textbook Sampling 3rd Ed. by Thompson, Wiley Publ may be downloaded without charge from the MSU E Library due to a contractual arrangement with Wiley and MSU. Be sure to download the 3rd edition (not 2nd) and it is suggested you may wish to do it chapter by chapter rather than all at once. You are not permitted to further distribute this material. A reference librarian can offer assistance if you experience difficulties, or email me. Use the link below and login with your unique MSU ID and password.


We plan to cover chapters 1-14 rather thoroughly. Any departures from this plan, and there will be some, will be announced in advance. Some few additional topics may be included in course coverage as deemed appropriate.

The textbook illustrates many ideas and facilitates calculations using the freely available R computer language. Homework assignments often take advantage of R which automates many things. To get R, google R Cran and download R, or google RStudio which incorporates R within a nice user interface that allows you to view several plots you have made.

It is a good idea to get started right away with R as outlined in Chapter 1 of the textbook. I will illustrate some of this in class and it will go more smoothly if you are able to try your hand first. I
will lead by example in order that programming considerations do not overshadow the course development of statistical content.

Become familiar with the use of R in MSU computer labs since you may need the lab to make late corrections or print assignments. Labs are a good place for small groups to meet and work together.

In this the Year of Statistics the methods of sampling populations in order to estimate population quantities (sample based inference) are considered by some to have taken a back seat to modern approaches which model observations as explicit functions of random errors together with unknown parameters (model based inference). In a surprising turnaround, recent developments may reposition sampling theory as a backbone of future statistical practice.

A second part of this syllabus reproduces relevant class information such as key dates, etc.