

Statistics 6510
Survey Sampling Methods
Autumn 2012

- Instructor:** Dr. Elly Kaizar
221 Cockins Hall
ekaizar@stat.osu.edu
Office Hours: Wed. 9:15-11:00am and by appointment (via email).
I also encourage you to email me short questions
and computing problems.
- Time/Place:** Wednesday, and Friday 3:00 - 3:55pm, 080 Derby Hall
Monday 3:00-3:55pm, 029 Derby Hall (computer lab)
- TA:** Di Cao, Office Hour: Wednesdays, 2:00 - 3:00pm, MA 422.
- Course Website:** <http://www.stat.osu.edu/~ekaizar/courses/6510/>
- Text:** *Sampling: Design and Analysis*, Lohr SL, second edition.
- Text Website:** http://www.wadsworth.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9780495105275
- Other References:** *Sampling Techniques*, Cochran
Elementary Survey Sampling, Scheaffer, Mendenhall & Ott
Survey Sampling, Kish
Sample Survey Methods and Theory, Hansen, Hurwitz and Madow
Survey Methodology, Groves, Fowler, Couper, et al.
- Prerequisites:** Stat 5301 or Stat 529 or PUBH-BIO 6212 or PUBH-BIO 703 or equivalent. Students should be knowledgeable about and comfortable with discrete data distributions, expected values, variances, confidence intervals, and regression. Many of these topics are reviewed in Appendix A of Lohr.
- Goals:** (1) learn how sample surveys are conducted and why these designs are used, (2) learn how to analyze survey results, and (3) be able to derive from first principles the standard results and their generalizations.

Computing:

We will use computing power for a variety of purposes. (1) We will be simulating survey data using programs that are freely available on the text website. (2) We will also be analyzing both simulated and real data using SAS. SAS is available in the Statistics Department student computer lab and all campus student computing labs, and is available to purchase via a site license agreement via <http://ocio.osu.edu/software>. The text uses SAS for its examples and homework, and sample SAS code is available on the text website. Note that SAS is *not* available for Macs.

Evaluation:

Individual Homework	15%
Exam 1	25%
Exam 2	25%
Group Project	35%

Grades are kept on Carmen.

Individual Homework:

All assignments are due by 5:00pm on the date specified. **NO** late homework will be accepted. Instead, your lowest homework grade will be dropped from the final homework average.

While the main purpose of homework is to be sure you understand the concepts and practice the techniques, homework will also be graded. It is your job to make your homework easy to grade. Raw computer output is unacceptable; all computer output must be edited and annotated. Graphs and plots must be clearly labeled and discussed in the text of the homework. Problems that are out of order or with parts not clearly identified may not receive full credit.

Homework you submit should be your own and should demonstrate your personal understanding of the problems, although I encourage you to work together in solving the problems. Feel free to ask me for help after you have made an attempt to solve the problems.

- Exams:** There will be two exams for this course. Both are closed book and closed notes. You may bring a single 8.5 x 11in sheet of notes to the first exam and two sheets of notes to the second exam. You should also bring a calculator to the exam, but no use of cell phones or other communication devices will be allowed. The exams will be held during class time on the dates announced on the course website.
- Projects:** Students will be assigned to small groups in which to work on projects. Points earned on a project will be shared equally for each member of the group. Project requirements and evaluation are described in the separate Project Guidelines document.
- Academic Integrity:** Cheating, plagiarism and other forms of academic dishonesty will not be tolerated. Any violation will be prosecuted to the fullest extent as set out in University Rule 3335-31-02.
- Disability Statement:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the Office for Disability Services at 614-292-3307 in room 150 Pomerene Hall to coordinate reasonable accommodations for students with documented disabilities.
- Disclaimer** This syllabus should be taken as a fairly reliable guide for the course content. However, you cannot claim any rights from it and in particular I reserve the right to change due dates or the methods of assessment. Official announcements will ALWAYS be those made in class.