

**STATISTICS 674, Spring 2008**  
**Survey Sampling II**  
**Mon, 04:30 – 07:10 P.M., Krug Hall 5**

**Instructor:** Dr. Donsig Jang, E-mail: [djang3@gmu.edu](mailto:djang3@gmu.edu), Phone: (202) 484-4246, Fax: (202) 863-1763, Office hours: Mon 3:40 – 4:20 P.M. in ST2 #142. After class times (Mon 7:10 – 8:00 P.M.) are available by appointment.

**Prerequisite:** STAT 574 or equivalent; and a basic knowledge/experience of SAS.

**Textbook:** “Sampling: Design and Analysis” by Lohr, Sharon L. Duxbury Press, 1999.

**Course Description:** This course is the second of a two-semester sequence on the design and analysis of sample surveys and offered in the Spring semester of even numbered years. (The first course, STAT 474/574: Survey Sampling I, is offered in the Fall semester every year.) This second session will cover complex sample designs based on basic sample designs covered in the first session, treatment of survey nonrespondents, variance estimations for complex survey data, and other special topics.

**Audience:** Sample surveys occur everywhere including the social sciences, business, environmental science, etc. The course is recommended to all students of statistics, mathematics, and to quantitatively oriented students in the social sciences and business. A two-semester sequence in survey sampling should definitely improve job prospects for those seeking a career in survey research or statistics (especially, in the Washington, D.C. area).

**Grading policy:** HW 50%, Final Exam (or project) 50%. I may use attendance and class participation to make adjustments at the end of the semester.

**Syllabus (Tentative !):**

<b>Date</b>	<b>Related Chapters</b>	<b>Topic</b>
Week 1 (1/28)	Chapters 1 – 5	Recap of the first session, Overview of the second session
Weeks 2 and 3 (2/4, 2/11)	Chapters 6, 7	Complex Sample Designs
Weeks 4, 5, 6 (2/18, 2/25, 3/3)	Chapter 8	Nonresponse, Weighting, Imputation
Week 7 (3/10)		Spring Break
Weeks 8 and 9 (3/17, 3/24)	Chapter 8	Nonresponse, Weighting, Imputation (Continued)
Weeks 10, 11, 12 (3/31, 4/7, 4/14)	Chapter 9	Variance Estimation
Weeks 13 and 14 (4/21, 4/28)		Other Topics
Week 15 (5/5)		Review
Week 16 (5/12)		Final Exam. 4:30 – 7:15 pm

**Key reference**

1. Cochran, W.G. (1977). Sampling Techniques, 3rd ed., Wiley.
2. Wolter, K.M. (2007). Introduction to Variance Estimation, 2nd ed., Springer-Verlag.