Mathematics 325 Survey Sampling Methods
Fall 2021, 8–9:15 AM, Tuesday and Thursday, Roop 105
Instructor: Dr. Steven Garren

I. Prerequisite: MATH 220, 229, 318, or equivalent.

II. Instructor's office information

email:	garrenst@jmu.edu
location:	Roop 313
web-site:	http://educ.jmu.edu/~garrenst
office hours:	Monday & Wednesday, 1 PM–2 PM, Roop 129
	Tuesday, 11 AM–12 PM, Roop 127
	Thursday, 11 AM–12 PM, Roop 212
	Arrive at 11 AM Tuesday/Thursday or 1 PM Monday/Wednesday, since professor leaves the classroom if no students are present. Display your nameplate.)

III. Free online text required

Scheaffer, Mendenhall, Ott, and Gerow (2012) *Elementary Survey Sampling*, 7th edition http://educ.jmu.edu/~garrenst/math325.dir/textbook325scheaffer.pdf

IV. Course objectives

- Some of the main topics covered are theory and practice of sampling including stratified random samples, discussion of simple random samples, cluster sampling, estimating sample size, ratio estimates, subsampling, two-stage sampling and analysis of sampling error.
- *R* (http://www.r-project.org) or *Rstudio* (http://www.rstudio.com) is the required statistical software package used in this course.

V. Grading

29% Homework
17% Exam I: Thursday, September 23
17% Exam II: Tuesday, October 19
17% Exam III: Thursday, November 18
20% Final Exam: Tuesday, December 14, 8:00 AM–10:00 AM

A. Homework

- Homework exercises are listed on my web-site.
- Students are permitted to work together on homework, without directly copying other students' work. It is unacceptable for two or more students to turn in the same homework based on electronic copies, in part or in full. Each student must fully type his/her own homework. Hence, students may NOT turn in homework typed partially or fully by another individual. Furthermore, do NOT allow any other student to have electronic access to your homework, in part or in full.
- All homework scores count toward one's final grade; i.e., no scores are dropped.
- No late homeworks will be accepted.
- Homework must be submitted electronically using Canvas as a .pdf file.

B. Exams

- Exams are closed book and closed notes, except for our online textbook, Gary W. Oehlert (2010) *A First Course in Design and Analysis of Experiments*, http://users.stat.umn.edu/∼gary/book/fcdae.pdf, which is permitted during exams, although the hardcopy is not permitted.
- Exams must be submitted electronically using Canvas as a .pdf file.
- A five-point penalty is accessed on any late exam (even less than one second late), and an additional five-point penalty is accessed for each additional minute late.
- The final exam is cumulative.
- Most all of the weighting of the exams will come from modifications to the homework problems and in-class examples.
- During exams, no cell phones, no iWatches, no FitBits, etc., may be used.
- If an exam is *curved,* then only students who did not take a bathroom break (or water break, etc.) will receive the *curve.*
- Display your nameplate during the entire exam.

VI. Miscellaneous

- A useful free textbook on R is https://cran.r-project.org/doc/contrib/Verzani-SimpleR.pdf
- Calculators are NOT allowed for exams or required homework problems.
- Cell phones (and other portable electronic devices, except laptop computers) must be completely **INVISIBLE** to yourselves and the instructor during class. The penalty for each violation is a one-point reduction of the student's final grade.
- Using an electronic device for reasons unrelated to Math 325uring class will result in the reduction of the student's final grade.
- Class attendance is optional. Your grade will not be raised or lowered based on your class attendance.
- Any student who exits the classroom (regardless of whether or not the student returns to class) before the end of class will receive a one-point reduction of the student's final grade. However, the student may email the instructor, within one hour after class ends, to request the one-point restoration, in exchange for an additional homework assignment, and the request may or may not be granted by the instructor.
- For your convenience, all lectures will be recorded and posted on Canvas (with a couple of hours delay due to processing time).
  However, the instructor does NOT re-record lectures which may get destroyed due to technology failure, which occurs about 5% of the time.
- The honor code of the university will be strictly enforced.

VII. Grading scheme

A	92.5%	to	100%
A−	89.5%	to	92.5%
B+	86.5%	to	89.5%
B	82.5%	to	86.5%
B−	79.5%	to	82.5%
C+	76.5%	to	79.5%
C	72.5%	to	76.5%
C−	69.5%	to	72.5%
D+	66.5%	to	69.5%
D	62.5%	to	66.5%
D−	59.5%	to	62.5%