

**EDF 6471— Survey Design and Analysis in Educational Research  
Spring 2010 - Section 6189**

Time: Mondays 4:05 - 7:05 pm Room: NRN292

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Office Hours:  
Tuesdays 2:00 - 5:00 pm  
Or by appointment

Class webpage in WEBCT: lss.at.ufl.edu

The class webpage contains the syllabus, readings, grades and class handouts. Handouts will be posted in the website after each class.

### **Course Overview**

This course prepares students to plan and implement their own surveys, as well as analyze survey data. This course assumes an understanding of simple statistics (estimates of population ratios, means, standard deviations, variances, and standard errors of these parameter estimates) as well as a basic understanding of multiple regression. This course will require the use of Excel, and the free statistical software R and AM to undertake some statistical analyses.

#### How to obtain and install R

1. Go to <http://www.r-project.org>
2. Click on CRAN (left side panel) and select a mirror for download.
3. Select your operational system
4. Click on "Base" to download the program.

#### How to obtain and install AM

1. Go to the website: <http://am.air.org/>
2. Click on "Download".
3. Register.
4. Once you have registered, download and install both the most current version of the AM program and AM's data transfer component.

Required book:

Dillman, D., Smyth, J., Christian, L. M. (2008). Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method, 3rd Edition. New York, NY: John Wiley & Sons, Inc.

Required chapters of books (available at the Education Library's course reserves):

Chapters 4 and 8 from Fowler Jr., F. J. (2002). Survey Research Methods. Thousand Oaks, CA: Sage Publications.

Chapters 2, 6, 7 and 9 from Czaja, R. & Blair, J. (2005). Designing surveys: A guide to decisions and procedures. Thousand Oaks, CA: Pine Forge Press.

Required articles are available at the Class webpage (articles are listed in the calendar of topics and readings on page 5) .

## **Course Assessment**

Projects:

There will be two projects, each designed to give students a chance to apply and practice the concepts learned in class. The work on the project will be done with a partner. You and your partner will receive a common grade for the project, so it is important that you fully cooperate in the project development. The projects should be typed and delivered through e-mail on or before the due date. The dates the projects are due are indicated in the table attached, and should be submitted on time for full earned credit. Late work will be accepted for full earned credit only if arrangements are made with me PRIOR TO THE DUE DATE. Otherwise, 5% of the points possible will be deducted for each day the assignment is late.

Exams:

There will be four short exams, containing only open-ended questions. Students will have 30 minutes to complete the exams.

Homework: Homework exercises are due on the next class day after they are assigned. Unless instructed otherwise, they should be printed and handed to the instructor at the beginning of class.

IRB course: Students are required to complete the course "Protecting Human Research Participants" provided by NIH. The due date for completing the training is the last day of class, but it can be completed anytime. Submit the certification of completion to the instructor. To take the course, go to <http://phrp.nihtraining.com>.

Extra credit - No planned opportunities for extra credit exist in this course.

General policy on missed work

It is expected that no students will miss any assignments or in-class tests/exams. No make-ups will be possible. In unusual circumstances, unavoidable absences resulting in missed work may be excused by the instructor. Excuse of absence can only be achieved in private consultation with the instructor, and will usually require written supportive documentation (e.g., doctor's certificate). When in doubt, check with the instructor, preferably IN ADVANCE.

Final grades will then be assigned based on the scale below:

Assessment	weight
Project #1	20%
Project #2	20%
Exams	40%
Homework	15%
IRB course	5%

Course Grades

Final grades will be assigned based on the scale below:

<i>Overall course percent</i>	<i>grade</i>
93.0% - 100%	A
90.0% - 92.9%	A-
87.0% - 89.9%	B+
83.0% - 86.9%	B
80.0% - 82.9%	B-
77.0% - 79.9%	C+
73.0% - 76.9%	C
70.0% - 72.9%	C-

67.0% - 69.9%	D+
63.0% - 66.9%	D
60.0% - 62.9%	D-
59.9% or less	E

Unless a computational error has been made, grades will not be changed after the end of the semester.

### Class Attendance

As a matter of mutual courtesy, please let the instructor know when you're going to be late, when you're going to miss class, or if you need to leave early. Please try to do any of these as little as possible. Students are expected to be present for all classes, since much material will be covered only once in class. Attendance will not be checked or graded, but you are responsible for the content of all classes, including issues raised in the spontaneous class discussions. If you must miss a class, please request notes from your classmates.

### Academic dishonesty

For University's honesty policy regarding cheating and use of copyrighted materials, see: <http://www.dso.ufl.edu/judicial/procedures/honestybrochure.php> Written assignments will be checked for plagiarism against published works, other papers submitted by classmates at the current and previous semesters and internet pages using Turnitin, which is UF's plagiarism detection software. It is expected that submitted work for individual assignments will solely reflect the student's own efforts. Students are expected not to collaborate in writing answers, or interpreting results. However, collaborations in running statistical software are acceptable, as long as each student works on his/her report separately.

### Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office (<http://oss.ufl.edu/>). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

### Counseling and Student Health

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information:

<http://www.counsel.ufl.edu/> or

<http://www.health.ufl.edu/shcc/smhs/index.htm#urgent>

*Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center: (352) 264-6789.*

### **Calendar of Topics and Readings**

Following are the readings that students are expected to be doing, whether or not the material is explicitly addressed in class. Because I do not know how long topics will take to cover, at this time I am providing a tentative calendar. Topics may differ from this schedule, but I will keep you informed of changes during class.

**Class 1** - 1/11 - Introduction: History of surveys, Preliminary survey planning, choice of survey method

1. Dillman - Chapter 1 - Turbulent Times for Survey Methodology
2. Czaja, R. & Blair, J. (2005). Chapter 2: Stages of a survey. In: Designing surveys: A guide to decisions and procedures. Thousand Oaks, CA: Pine Forge Press.
3. Fowler Jr., F. J. (2002). Chapter 4: Methods of data collection. In: Survey Research Methods. Thousand Oaks, CA: Sage Publications.

**Class 2** - 1/25 - Population definition; choosing the sampling method; Calculation of sample size

1. Dillman - Chapter 3 - Coverage and Sampling
2. Czaja, R. & Blair, J. (2005). Chapter 7: Designing the sample. In: Designing surveys: A guide to decisions and procedures. Thousand Oaks, CA: Pine Forge Press.

**Class 4** - 2/1: Focus groups for question development, Question writing

1. American Statistical Association. (1997). What are Focus Groups? ASA.
2. Dillman - Chapter 4 - The basics of crafting good questions

### Exam 1

#### **Class 5** - 2/8: Question writing

1. Dillman - Chapter 5 - Constructing open and closed-ended questions

#### **Class 6** - 2/15 - Questionnaire Construction

1. Dillman - Chapter 6: From questions to a questionnaire

#### **Class 7** - 2/22

##### Pre-testing and Implementation

1. Czaja, R. & Blair, J. (2005). Chapter 6: Questionnaire design: Testing the questions. In: Designing surveys: A guide to decisions and procedures. Thousand Oaks, CA: Pine Forge Press.
2. American Statistical Association. (1997). How to conduct pretesting. (part of the ASA Series: What is a survey?)
3. Willis, G. B. (1999). Cognitive interviewing: A "how to" guide. Short course presented at the annual meeting of the American Statistical Research Association.

### Exam 2

#### **Class 8** - 3/1

##### Implementation

4. Dillman - Chapter 7 - Implementation procedures
5. Dillman - Chapter 11 - Effects of Sponsorship and the data collection organization

#### **Class 9** - 3/15 - Group administered surveys and mixed mode surveys

1. Dillman - Chapter 8 - When more than one mode is needed
2. Dillman (2007) - Chapter 7 - Alternative questionnaire delivery: in person, to groups, and through publications

#### **Project 1 due**

#### **Class 10** - 3/22 - Dataset construction, Data entry, missing data

1. Fowler Jr., F. J. (2002). Chapter 8: Preparing survey data for analysis. In: Survey Research Methods. Thousand Oaks, CA: Sage Publications.

### Exam 3

**Class 11 - 3/29 - Analysis software/Sampling weights, design effects**

1. Hahs-Vaughn, Debbie L. (2005). A primer for using and understanding weights with national datasets. *The journal of experimental education*, 73(3), 221-248.

**Class 12 - 4/5 - Analysis of survey data**

1. U.S. Department of Education. National Center for Education Statistics. (2003). Chapter 1: Early Childhood Longitudinal Study. In: *NCES Handbook of Survey Methods*. Washington, DC: NCES.

**Class 13 - 4/12 - Sources of error**

1. American Statistical Association. (1998). Judging the quality of a survey. (part of the ASA Series: What is a survey?)
2. Czaja, R. & Blair, J. (2005). Chapter 9: Reducing sources of error in data collection. In: *Designing surveys: A guide to decisions and procedures*. Thousand Oaks, CA: Pine Forge Press.
1. Dillman - Chapter 2 - The tailored design method

**Class 14 - 4/19**

**Exam 4**

**Project 2 due**