Experimental Design For Surveys
SURV 627
2 credits/4 ECTS
Fall 2018

Instructor(s)
Roger Tourangeau, RogerTourangeau@Westat.com

Short Course Description
This course examines how to embed experiments in surveys. It covers both the design of survey experiments and the analysis of the results.

Course and Learning Objectives
By the end of the course, students will...
• Learn about basic principles of experimental design
• Recognize the main types of experimental designs
• Improve the quality of designs used to carry out methodological research in or for surveys
• Develop critical skills to spot flaws in experimental and nonexperimental designs to support causal inferences
• Improve skills at analyzing results of survey experiments
• Improve skills as both consumer and producer of experiments done to shed light on survey methodological issues

Prerequisites
At least one prior course in data analysis. Ability to use SAS or STATA.

Class Structure and Course Concept:
This is an online course using a flipped classroom design. It covers the same material and content as an on-site course but runs differently. In this course, you are responsible for watching video recorded lectures and reading the required literature for each unit and then “attending” mandatory weekly one-hour online meetings where students have the chance to discuss the materials from a unit with the instructor. As with an on-site course, homework will be assigned and graded and there will be three quizzes.

Although this is an online course where students have more freedom in when they engage with the course materials, students are expected to spend the same amount
of time overall on all activities in the course – including preparatory activities (readings, studying), in-class activities (watching videos, participating in online meetings), and follow-up activities (working on assignments and exams) – as in an on-site course. As a rule of thumb, for each credit offered by a course, students can expect to spend one hour per week on in-class activities and three hours per week on out-of-class activities over the span of a full 12-week term. This is a 2-credit course that runs for 8 weeks. Hence, the total average workload is about 12 hours per week.

**Mandatory Weekly Online Meetings:**
Tuesday, 1:00 pm Eastern Daylight Time (EDT)/19:00 CEST

Meetings will be held online through Zoom. Follow the link to the meeting sessions on the course website on [https://www.elms.umd.edu/](https://www.elms.umd.edu/). If video participation via Internet is not possible, arrangements can be made for students to dial in and join the meetings via telephone.

In preparation for the weekly online meetings, students are expected to watch the lecture videos and read the assigned literature before the start of the meeting. In addition, students are encouraged to post questions about the materials covered in the videos and readings of the week in the forum before the meetings (deadline for posting questions is Monday, 6:00 pm EDT/24:00 CEST).

Students have the opportunity to use the Zoom meeting room set up for this course to connect with peers outside the scheduled weekly online meetings (e.g., for study groups). Students are encouraged to post the times that they will be using the room to the course website forum to avoid scheduling conflicts. Students are not required to use Zoom and can of course use other online meeting platforms such as Google Hangout or Skype.

**Grading**
Grading will be based on:
- 3 Online quizzes (45%)
- 3 exercises (45%)
- Participation in online discussions (10%)

Dates of when assignment will be due are indicated in the syllabus. Extensions will be granted sparingly and are at the instructor's discretion.

**Technical Equipment Needs**
The learning experience in this course will mainly rely on the online interaction between students and the instructor during the weekly online meetings. Therefore
we encourage all students in this course to use a web camera and a headset. Decent quality headsets and webcams are available for less than $20 each. We ask students to refrain from using built-in webcams and speakers on their desktops or laptops. We know from our experience in previous online courses that this will reduce the quality of video and audio transmission and therefore will decrease the overall learning experience for all students in the course. In addition, we suggest that students use a wired connection (LAN), if available, when connecting to the online meetings. Wireless connections (WLAN) are usually less stable and might be dropped.

**Long Course Description**

A key tool of methodological research is the split-ballot experiment, in which randomly selected subgroups of a sample receive different questions, different response formats, or different modes of data collection. In theory, such experiments can combine the clarity of experimental designs with the inferential power of representative samples. All too often, though, such experiments use flawed designs that leave serious doubts about the meaning or generalizability of the findings. The purpose of this course is to consider the issues involved in the design and analysis of data from experiments embedded in surveys. It covers the purposes of experiments in surveys, examines several classic survey experiments in detail, and takes a close look at some of the pitfalls and issues in the design of such studies. These pitfalls include problems (such as the confounding of the experimental variables) that jeopardize the comparability of the experimental groups, problems (such as nonresponse) that cast doubts on the generality of the results, and problems in determining the reliability of the results. The course will also consider some of the design decisions that almost always arise in planning experiments — issues such as identifying the appropriate error term for significance tests and including necessary comparison groups.

**Readings**

*Primary readings will be the following:*


Additional required and recommended readings will be made available on the course website: [https://www.elms.umd.edu/](https://www.elms.umd.edu/)

**Academic Conduct**

Clear definitions of the forms of academic misconduct, including cheating and plagiarism, as well as information about disciplinary sanctions for academic misconduct may be found at

[http://www.graduate.umd.edu/policies/misconduct.html](http://www.graduate.umd.edu/policies/misconduct.html) (University of Maryland) and


Knowledge of these rules is the responsibility of the student and ignorance of them does not excuse misconduct. The student is expected to be familiar with these guidelines before submitting any written work or taking any exams in this course. Lack of familiarity with these rules in no way constitutes an excuse for acts of misconduct. Charges of plagiarism and other forms of academic misconduct will be dealt with very seriously and may result in oral or written reprimands, a lower or failing grade on the assignment, a lower or failing grade for the course, suspension, and/or, in some cases, expulsion from the university.

**Accommodations for Students with Disabilities**

In order to receive services, students at the University of Maryland must contact the Disability Support Services (DSS) office to register in person for services. Please call the office to set up an appointment to register with a DSS counselor. Contact the DSS office at 301.314.7682; [http://www.counseling.umd.edu/DSS/](http://www.counseling.umd.edu/DSS/).

Students at the University of Mannheim should contact the Commissioner and Counsellor for Disabled Students and Students with Chronic Illnesses at [http://www.uni-mannheim.de/studienbueros/english/counselling/disabled_persons_and_persons_with_chronic_illnesses/](http://www.uni-mannheim.de/studienbueros/english/counselling/disabled_persons_and_persons_with_chronic_illnesses/).

**Course Evaluation**
In an effort to improve the learning experience for students in our online courses, students will be invited to participate in an online course evaluation at the end of the course (in addition to the standard university evaluation survey). Participation is entirely voluntary and highly appreciated.

**Class Schedule**

*Please note that assignments and dates are subject to change. Information (e.g., articles and assignments) posted to the course website supersedes the information noted here.*

**Unit 1: Introduction**

- Online meeting (Roger Tourangeau): Tuesday, September 4, 1:00 pm EDT/19:00 CEST

- Video lecture (Roger Tourangeau): available online Wednesday, August 29

- Readings:

**Unit 2: Examples of Experiments in Surveys**

- Online meeting (Roger Tourangeau): Tuesday, September 11, 1:00 pm EDT/19:00 CEST

- Online quiz 1: due Wednesday, September 12, 6:00 pm EDT/24:00 CEST

- Video lecture (Roger Tourangeau): available online Tuesday, September 4

- Readings:


**Unit 3: Experimental Designs I**

Online meeting (Roger Tourangeau): Tuesday, September 18, 1:00 pm EDT/19:00 CEST

Online quiz 2: due Wednesday, September 19, 6:00 pm EDT/24:00 CEST

Exercise 1: due Thursday, September 20, 6:00 pm EDT/24:00 CEST

Video lecture (Roger Tourangeau): available online Tuesday, September 11

Readings:


**Unit 4: Experimental Designs II**

Online meeting (Roger Tourangeau): Tuesday, September 25, 1:00 pm EDT/19:00 CEST

Video lecture (Roger Tourangeau): available online Tuesday, September 18

Readings:

**Unit 5: Comparability and Generalizability**

Online meeting (Roger Tourangeau): Tuesday, October 2, 1:00 pm EDT/19:00 CEST
Excercise 2: due Thursday, October 4, 6:00 pm EDT/24:00 CEST

Video lecture (Roger Tourangeau): available online September 25

Readings:

Unit 6: Construct Validity I
Online meeting (Roger Tourangeau): Tuesday, October 9, 1:00 pm EDT/19:00 CEST

Video lecture (Roger Tourangeau): available online October 2

Readings:

Unit 7: Construct Validity 2; Statistical Validity
Online meeting (Roger Tourangeau): Tuesday, October 16, 1:00 pm EDT/19:00 CEST

Video lecture (Roger Tourangeau): available online October 9

Readings:


Unit 8: Wrap-Up
Online meeting (Roger Tourangeau): Tuesday, October 23, 1:00 pm EDT/19:00 CEST

Online quiz 3: due Wednesday, October 24, 6:00 pm EDT/24:00 CEST

Exercise 3: due Thursday, October 25, 6:00 pm EDT/24:00 CEST
Video lecture (Roger Tourangeau): available online October 16

Readings:


**Note:** Student access to the course website will be revoked two weeks after the final class.