

1-29-20

## **Design and Implementation of Web Surveys**

**Michigan: SI400, SurvMeth605; Winter 2020**

**UMD: INST408M, SURV699R; Spring 2020**

*3 credits*

### **Instructors**

Fred Conrad

University of Michigan

[fconrad@umich.edu](mailto:fconrad@umich.edu)

Office hours: upon appointment via email

Chris Antoun

University of Maryland

[antoun@umd.edu](mailto:antoun@umd.edu)

Office hours: upon appointment via email

### **Location:**

ISR 1070 (Michigan)

Lefrak Hall 2208 (UMD)

### **Class time:**

Tue/Thu 4:00-5:15 PM

### **Course Description**

This is a hands-on course in which small groups of students will develop and deploy a web survey, collect and analyze data from actual respondents, and write a report suitable for a client. Lectures and class discussion will focus on the scientific literature in web survey methodology with a focus on practical implications.

This course is shared between the University of Michigan and the University of Maryland. Students from the two universities will sit in different classrooms but attend the same video-mediated class/lecture.

This is an integrated undergraduate/graduate course. Students taking the course for graduate credit are assigned additional readings that emphasize the conceptual and theoretical aspects of online survey data collection and are given longer versions of the course quizzes to assess their understanding of these concepts. They will also serve as the leaders of their project groups.

### **Prerequisites**

Information Science students at UMD: Must have completed INST314 or equivalent

BSI students at U-M: Must have completed STAT250 or equivalent

Graduate students: must have completed one introductory statistics course

### **Course and Learning Objectives**

In this course students will learn to:

1. write survey questions and assemble them into a questionnaire;
2. develop, test, and deploy an online questionnaire;
3. analyze data from respondents;
4. work in teams to implement a web survey project and report their results in a presentation and report; and
5. explain and apply conceptual foundations of online survey data collection.

### **Class Meetings**

There will be two classes per week. The classes are evenly split between lectures and labs (led by the GSI/TA). The lectures will be tailored to the particular issues and research questions. They will be given by both instructors, with one taking the lead on each lecture. The labs will involve hands-on activities carried out in groups, with support from the GSI/TA and/or instructors.

### **Project**

Students will be grouped together so that their experience and knowledge levels related to surveys will complement each other. Students will likely be grouped together with students at their own university. Groups will then design and implement a web survey to address a research problem confronted by a hypothetical client. Students will implement a questionnaire in Qualtrics; a convenience sample of participants (respondents) will be recruited from Amazon Mechanical Turk (MTurk) or an online research panel. Students will give short in-class presentations of their results. They will also write a client report that is no more than five pages including an executive summary.

### **Grading**

Grading will be based on four components:

- two quizzes on the lecture material and required readings (15% each)
- lab assignments (30%)
- a final written project report (40%)
- ratings of each group member's contributions to the project by the other group members (will be used to adjust the lab and final project scores)

### **Readings**

There is one required textbook for all students. The digital version is available for free through each university library website:



Toepoel (2016). *Doing Survey Online*.  
<https://methods.sagepub.com/book/doing-surveys-online>  
(Hereafter **DSO**)

Primary research articles will also be assigned to complement the textbook. The readings for each week are indicated in the class schedule below.

Readings assigned to graduate students are marked (\*) in the class schedule.

### **Lab Fee**

To cover the costs of data collection a lab fee will be required. We intend for students to implement the questionnaire using Qualtrics under the Universities' licenses. This is a fully featured version (except for some premium features) of the tool and there is no fee for its use. But there will be a cost for survey participants. Two potential recruitment options are MTurk and Qualtrics panel. An initial estimate is \$50.

### **Campus Policies and Academic integrity**

It is our shared responsibility to abide by the University of Michigan's and University of Maryland's policies.

### **University of Michigan**

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 the Rackham web site for the University of Michigan:

<https://rackham.umich.edu/academic-policies/section8/>

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 completing any projects 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.

### **University of Maryland**

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 the

University of Maryland, Office of the President's website:  
<http://www.president.umd.edu/policies/docs/III-100A.pdf>

Cases of academic misconduct will be referred to the Office of Student Conduct irrespective of scope and circumstances, as required by university rules and regulations. Visit <http://osc.umd.edu/OSC/Default.aspx> for more information about academic integrity.

You may find a full list of campus-wide policies at <http://www.ugst.umd.edu/courserelatedpolicies.html> (undergraduate) and <https://academiccatalog.umd.edu/graduate/policies/academic-record/> (graduate).

## **Services for Students with Disabilities**

### **University of Michigan**

If you think that you need an accommodation for a disability, please contact Services for Students with Disabilities (SSD) office to help us determine appropriate academic accommodations. SSD (734-763-3000; <http://ssd.umich.edu>) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. Any information you provide is private and confidential and will be treated as such.

### **University of Maryland**

Students with disabilities should inform the instructors of their needs at the beginning of the semester. Please also contact the Disability Support Services (301-314-7682 or [www.counseling.umd.edu/DSS](http://www.counseling.umd.edu/DSS)). DSS will make arrangements to help us determine and implement appropriate academic accommodations. Students encountering psychological problems that hamper their course work are referred to the Counseling Center (301-314-7651 or [www.counseling.umd.edu](http://www.counseling.umd.edu)) for expert help.

## **Class Schedule**

Because this course is offered on two campuses with two different academic calendars it is necessary to adjust the schedule on which certain material is covered in class. Therefore, students from the University of Michigan (**U-M**) will begin the course with a discussion of analysis of survey data and University of Maryland (**UMD**) students will finish the course with that same discussion. All other classes will be synchronized

### Start/end dates

U-M: 1/14/20 - 4/23/20

UMD: 1/28/20 - 5/7/20

“R-1”, “R-2”,... “R-5” refer to assigned readings that are shown below under “Readings.”

<b>Date</b>	<b>U-M</b>	<b>UMD</b>	<b>Readings</b>
<b>** Analysis of Survey Data for U-M students **</b>			
1/14	<b>Logistics, Introduction (Conrad)</b>		DSO-Ch 1; R-1*
1/16	<b>Data Analysis and Reporting – I (Antoun)</b>		DSO-Ch 13;
1/21	<b>Data Analysis and Reporting – II (Antoun)</b>		DSO-Ch 14
1/23	<b>Lab #1</b>		
1/28	<i>NA</i>	<b>Logistics, Introduction (Conrad)</b>	DSO-Ch 1 R-1*
<b>** Key Concepts of Survey Methodology **</b>			
1/30	<b>Lab #2</b>		
2/4	<b>Samples and Representation (Antoun)</b>		DSO-Ch 4; R-2*
2/6	<b>Lab #3</b>		
2/11	<b>Lab #4</b>		
2/13	<b>Psychological Approaches to Survey Measurement Error (Conrad)</b>		R-4
2/18	<b>Writing Effective Survey Questions (Conrad)</b>		DSO-Ch 2; R-5*
<b>** Questionnaire Design**</b>			
2/20	<b>Ethical Considerations (Conrad)</b>		DSO-Ch 3; R-3*
2/25	<b>Lab #5</b>		
2/27	<b>Group presentations of questionnaires; <i>Midterm Quiz, due March 1</i></b>		
3/2- 3/6	<b><i>U-M Spring Break</i></b>		
3/10	<b>Evaluating Question Wording and User Experience (Conrad) <i>Peer Assessment 1, due March 15</i></b>		R-6; R-7
3/12	<b>Lab #6</b>		
3/16- 3/20	<b><i>UMD Spring Break</i></b>		
3/24	<b>Interactivity in Web Surveys (Conrad)</b>		R-8
3/26	<b>Lab #7</b>		
3/31	<b>Programming the Questionnaire (Antoun)</b>		DSO-Ch 9; R-9; R-10*
4/2	<b>Lab #8</b>		
<b>** Fielding the Survey **</b>			
4/7	<b>Recruiting Participants and Monitoring Data Collection (Antoun) <i>Final Quiz, due April 12</i></b>		DSO-Ch 7, 11
4/9	<b>Lab #9</b>		
4/14	<b>Lab #10</b>		
4/16	<b>Data Preparation and Processing (Antoun)</b>		DSO-Ch 11, 12*
4/21	<b>Lab #11</b>		

4/23	<b>Final Presentations</b> <i>U-M Project and Peer Assessment 2, due April 26</i>	NA	
<b>** Analysis of Survey Data for UMD students **</b>			
4/28	NA	<b>Data Analysis and Reporting – I (Antoun)</b>	DSO-Ch 13;
4/30		<b>Data Analysis and Reporting – II (Antoun)</b>	DSO-Ch 14
5/5		<b>Lab #1</b>	
5/7		<b>Final Presentations</b> <i>UMD Project and Peer Assessment 2, due May 12</i>	

If there are updates to the schedule, they will be posted to Canvas.

**Readings (available on Canvas if a URL is not provided):**

R-1: Couper, M. P. and Miller, P. V. 2008. “Web survey methods: Introduction.” *Public Opinion Quarterly*, 72, 831-835. <sup>GRAD</sup>

R-2: Tourangeau, R. Conrad, F., & Couper M. 2013. “Chapter 2: Sampling and Coverage Issues for Web Surveys,” *The Science of Web Surveys*. 11-35. <sup>GRAD</sup>

R-3: Singer, E., & Couper, M. P. 2018. Ethical Considerations in Internet Surveys. *Social and Behavioral Research and the Internet: Advances in Applied Methods and Research Strategies*. <sup>GRAD</sup>

R-4: Tourangeau, R. Rips, L., & Rasinski K. 2000. “Chapter 1: An Introduction and Point of View,” *The Psychology of Survey Response*. 1-22.

R-5: Krosnick, J. & Presser, S., 2010. “Chapter 9: Question and questionnaire design.” In Marsden, P. V., & Wright, J. D. (Eds.). (2010). *Handbook of survey research*. Emerald Group Publishing. <sup>GRAD</sup>

R-6: Callegaro, M., Manfreda, K. L., & Vehovar, V. 2015. “Chapter 2.3.5: Web questionnaire testing.” *Web survey methodology*. Sage, 104-114.

R-7: Geisen, E. & Romano Bergstrom J. 2017. “Chapter 1: Usability and Usability Testing,” *Usability Testing for Survey Research*.

R-8: Tourangeau, R. Conrad, F., & Couper M. 2013. “Chapter 6: Interactive Features and Measurement Error,” *The Science of Web Surveys*. 99-128.

R-9: Review the documentation and library of webinars available on the Qualtrics website (<https://www.qualtrics.com/support/survey-platform/survey-module/survey-module-overview/>)

R-10: Callegaro, M., Manfreda, K. L., & Vehovar, V. 2015. "Chapter 5.3: Web survey software." *Web survey methodology*. Sage, 215-226. <sup>GRAD</sup>

## **Lab Topics**

Note: Lab topics are subject to change. Any updates to the schedule will be posted to Canvas.

**Lab #1** – *Analyze data*

**Lab #2** – *Identify potential survey research topic*

**Lab #3** – *Identify target population*

**Lab #4** – *Groups agree on primary concepts to be measured; send brief description to instructors by end of lab (or within 24 hours)*

**Lab #5** – *Draft questions for paper questionnaire and assemble into draft questionnaire*

*Submit IRB approval if plan to use the data for anything but the class*

**Lab #6** – *Develop cognitive interview protocol including recruitment criteria*

**Lab #7** – *Choose input tools for each question*

**Lab #8** – *Implement questionnaire in Qualtrics*

**Lab #9** – *Design invitation and recruitment materials; incentives*

**Lab #10** – *Collect data: Release (publish) questionnaire; Invite participants; Monitor completion rates and nonresponse.*

**Lab #11** – *Data processing and analysis*