SURV

**Survey Methodology**

**Fall 2016**

**SURV615**

**Statistical Methods I**

- Credits: 3
- Grading Method: Regular, Audit

**Prerequisite:** Must have completed a two course sequence in probability and statistics; or students who have taken courses with comparable content may contact the department.

*First course in a two term sequence in applied statistical methods covering topics such as regression, analysis of variance, categorical data, and survival analysis.*

It runs concurrently with the University of Michigan course.

**Seats** (Total: 20, Open: 20, Waitlist: 0)

- **0101** Sunghee Lee

  Meets September 5, 2016 - December 8, 2016
  Th 1:00pm - 3:50pm
  LEF 1208

**SURV623**

**Data Collection Methods in Survey Research**

- Credits: 3
- Grading Method: Regular, Audit

**Prerequisite:** SURV400; or students who have taken courses with comparable content may contact the department.

*Review of alternative data collection methods used in surveys, such as current advances in computer-assisted telephone interviewing (CATI), computer-assisted personal interviewing (CAPI), and other methods such as touchtone data entry (TDE) and voice recognition (VRE).*

**Seats** (Total: 25, Open: 25, Waitlist: 0)

- **0101** Mick Couper, Frederick Conrad

  Meets September 14, 2016 - December 7, 2016
  M 3:30pm - 6:30pm
  LEF 1208

*Restricted to JPSM students only.*

**SURV630**

**Questionnaire Design and Evaluation**

- Credits: 3
- Grading Method: Regular, Audit

*Credit only granted for: SURV430 and SURV630.*
The stages of questionnaire design; developmental interviewing, question writing, question evaluation, pretesting, and questionnaire ordering and formatting. Reviews of the literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. Examination of the diverse challenges posed by self versus proxy reporting and special attention is paid to the relationship between mode of administration and questionnaire design.

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<thead>
<tr>
<th>Class</th>
<th>Instructor</th>
<th>Seats (Total:</th>
<th>Location</th>
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<tbody>
<tr>
<td>0101</td>
<td>Ting Yan</td>
<td>20, Open: 20, Waitlist: 0</td>
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<td>SV01</td>
<td>Instructor: TBA</td>
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Meets at the Census Bureau, T10. Restricted to UNC-Census: Federal Employees only.

**SURV632 Social and Cognitive Foundations of Survey Measurement**

Credits: 3
Grading Method: Regular, Audit

Major sources of survey error—such as reporting errors and nonresponse bias—from the perspective of social and cognitive psychology and related disciplines. Topics: psychology of memory and its bearing on classical survey issues (e.g., underreporting and telescoping); models of language use and their implications for the interpretation and misinterpretation of survey questions; and studies of attitudes, attitude change, and their possible application to increasing response rates and improving the measurement of opinions. Theories and findings from the social and behavioral sciences will be explored.

Restricted to SURV majors only.

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<tr>
<th>Class</th>
<th>Instructor</th>
<th>Seats (Total: 15, Open: 15, Waitlist: 0)</th>
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<tr>
<td>0101</td>
<td>Frederick Conrad</td>
<td>Meets September 5, 2016 - December 7, 2016</td>
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<td>W 9:00am - 11:45am</td>
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**SURV641 Survey Practicum II**

Credits: 2
Grading Method: Regular

Prerequisite: SURV620. Restriction: Must be in one of the following programs (Survey Methodology (Doctoral); Survey Methodology (Master's)). Credit only granted for: SURV621 or SURV641. Formerly: SURV621. Additional information: SURV640 and SURV641 must be taken in consecutive semesters.

Second part of applied workshop in sample survey design. Course focus on post data collection process of data processing, editing and analysis.
SURV650  Economic Measurement

Credits: 3  Grading Method: Regular, Audit

Prerequisite: Must have completed a course in intermediate microeconomics. Credit only granted for: SURV650 or SURV699L. Formerly: SURV699L.

An introduction to the field of economic measurement. Sound economic data are of critical importance to policymakers, the business community, and others. Emphasis is placed on the economic concepts that underlie key economic statistics and the translation of those concepts into operational measures. Topics addressed include business survey sampling; the creation of business survey sampling frames; the collection of data from businesses; employment and earnings statistics; price statistics; output and productivity measures; the national accounts; and the statistical uses of administrative data. Lectures and course readings assume prior exposure to the tools of economic analysis.

SV01  Katharine Abraham  Seats (Total: 24, Open: 24, Waitlist: 0)
Tu 9:00am - 11:40am  Location: TBA

Meets at the Bureau of Labor Statistics in the BLS Conference and Training Center G440. Please check the signs at the entrance for each class location as classrooms will vary.

SURV672  Introduction to the Federal Statistical System and the Survey Research Profession

Credits: 1  Grading Method: Sat-Fail

Credit only granted for: (SURV670 and SURV671) or SURV672. Formerly: SURV670 and SURV671.

The U.S. statistical system and its goals are reviewed. The federal statistical agencies are described, and their primary missions and data collections are examined. The statistical systems of other countries are compared with the U.S. system. Organizational and budgetary aspects are presented. Students will learn about organizations and groups outside of the Federal Statistical System that affect the actions of the System. These include other governmental units, professional associations, and advisory groups created by the agencies themselves. Students will review current laws regarding privacy and confidentiality affecting government agency work and consider a variety of ethical issues confronting government statisticians.

SV01  Brian Harris-Kojetin  Seats (Total: 20, Open: 20, Waitlist: 0)

Meets September 5, 2016 - December 12, 2016
Tu 5:45pm - 6:45pm  Location: TBA

Meets in room 5040 at the Bureau of Labor Statistics in DC.
**SURV699**

**Special Topics in Survey Methodology; Reading in Survey Methodology**

Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

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<th>Section</th>
<th>Instructor(s)</th>
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<tr>
<td>0101</td>
<td>Frederick Conrad</td>
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<td>0201</td>
<td>Robert Croninger</td>
<td>Contact instructor or department for details.</td>
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<tr>
<td>0301</td>
<td>Stanley Presser</td>
<td>Contact instructor or department for details.</td>
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**SURV699N**

**Special Topics in Survey Methodology; Statistical Methods for Analysis of Complex Samples in Public Health**

Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

Prerequisite: Mathematical statistics course at the Masters level (e.g., UMD STAT/SURV420, EPIB652, or equivalent) and permission of instructor.

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<tr>
<td>0101</td>
<td>Barry Graubard, Yan Li</td>
<td>Meets September 5, 2016 - December 13, 2016</td>
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**SURV699X**

**Special Topics in Survey Methodology; Statistical Analysis with Missing Data**

Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

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<td>0101</td>
<td>Partha Lahiri</td>
<td>Meets September 14, 2016 - December 13, 2016</td>
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<td>M 9:30am - 12:15pm LEF 1208</td>
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**SURV699Y**  
**Special Topics in Survey Methodology; Big Data for Federal Agencies**

Credits: 6  
Grading Method: Regular

*Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.*

Meets at Summit LL, 601 New Jersey Ave. NW, Washington, DC. Prerequisite: Permission of the Instructor and familiarity with survey and administrative data; mastery of a statistical software package; completion of an online Python programming class or pre-class bootcamp.

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<th>Section</th>
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<td>SV01</td>
<td>Frauke Kreuter</td>
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**SURV701**  
**Analysis of Complex Sample Data**

Credits: 3  
Grading Method: Regular, Audit

*Prerequisite: SURV625.*

*Analysis of data from complex sample designs covers: the development and handling of selection and other compensatory weights; methods for handling missing data; the effect of stratification and clustering on estimation and inference; alternative variance estimation procedures; methods for incorporating weights, stratification and clustering, and imputed values in estimation and inference procedures for complex sample survey data; and generalized design effects and variance functions. Computer software that takes account of complex sample design in estimation.*

It runs concurrently with the University of Michigan course.

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<td>0101</td>
<td>Yan Li</td>
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<td>Meets September 5, 2016 - December 7, 2016</td>
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<td>SV01</td>
<td>Yan Li</td>
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*Meets at the Census Bureau, T10. Restricted to Census Federal Employees only.*

**SURV720**  
**Total Survey Quality I**
SURV722  Research Design: Causal inference from randomized and observational data

Credits: 3  Grading Method: Regular, Audit

Restriction: Must be in Survey Methodology (Doctoral) program; or must be in Survey Methodology (Master's) program; or must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department.

Research designs from which causal inferences are sought. Classical experimental design will be contrasted with quasi-experiments, evaluation studies, and other observational study designs. Emphasis placed on how design features impact the nature of statistical estimation and inference from the designs. Issues of blocking, balancing, repeated measures, control strategies, etc.

Click Here More Information

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SURV745  Practical Tools for Sampling and Weighting

Credits: 3  Grading Method: Regular, Audit

Practical tools for sampling and weighting. Coverage, nonresponse, sampling, measurement, and postsurvey processing errors. For each error source reviewed, social science theories about its causes and statistical models estimating the error source are described. Empirical studies from the survey methodological literature are reviewed to illustrate the relative magnitudes of error in different designs. Emphasis on aspects of the survey design necessary to estimate different error sources. Relationships to show how attempts to control one error source may increase another source. Attempts to model total survey error will be presented.

It runs concurrently with the University of Michigan course.
A statistical methods class appropriate for second year Master's students and PhD students. The course will be a combination of hands-on applications and general review of the theory behind different approaches to sampling and weighting. Topics covered include sample size calculations using estimation targets based on relative standard error, margin of error, and power requirements. Use of mathematical programming to determine sample sizes needed to achieve estimation goals for a series of subgroups and analysis variables. Resources for designing area probability samples. Methods of sample allocation for multistage samples. Steps in weighting, including computation of base weights, non response adjustments, and uses of auxiliary data. Non response adjustment alternatives, including weighting cell adjustments, formation of cells using regression trees, and propensity score adjustments. Weighting via post stratification, raking, general regression estimation, and other types of calibration.

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<tr>
<td>SURV745</td>
<td>Richard Valliant</td>
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<td>September 3, 2016 - December 13, 2016</td>
<td>Th 3:30pm - 6:30pm</td>
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<td>SURV615, SURV616, and SURV625; or permission of instructor. Credit only granted for: SURV745 or SURV699E. Formerly: SURV699E.</td>
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<tr>
<td>SURV798Z</td>
<td>Brady West</td>
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<td>September 5, 2016 - December 13, 2016</td>
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SURV829  Doctoral Research Seminar in Survey Methodology
Credits: 3-6  Grading Method: Regular
An advanced research seminar for students preparing to do research or take doctoral comprehensive examinations.

0101  Frauke Kreuter  Seats (Total: 10, Open: 10, Waitlist: 0)
Meets September 5, 2016 - December 7, 2016
Th 9:00am - 11:30am  LEF 1218

SURV898  Pre-Candidacy Research
Credits: 1-8  Grading Method: Regular, Sat-Fail
Contact department for information to register for this course.

SURV899  Doctoral Dissertation Research
(Perm req)  Credits: 6  Grading Method: Regular, Sat-Fail
Contact department for information to register for this course.