SURVEY RESEARCH AND METHODOLOGY (SRAM)

SRAM 800 Research Methods
Crosslisted with: POLS 800
Description: Basic techniques used in quantitative political science research. The general linear model. Basic probability theory, ordinary least squares regression, and how to solve problems often encountered when conducting quantitative analyses in political science.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SRAM 816 Principles of Survey Analysis
Description: Introduction to the basic principles of causality and inductive logic in contemporary social and behavioral science. One, two, and multi-way layouts in analysis of variance, fixed effects models, and linear regression in several variables; the Gauss-Markov-Theorem; multiple regression analysis; and basic principles of experimental and quasi-experimental designs.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: SRAM 917

SRAM 817 Cross-cultural and Multi-population Survey Methodology
Description: Multi-national research projects and the methodological challenges. Key aspects of cross-national, cross-cultural survey research, study design and organization; survey error and bias; question design; harmonization; adaptation and translation; survey process quality monitoring and control; and process and output documentation.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: SRAM 917

SRAM 818 Data Collection Methods
Crosslisted with: SOCI 818
Description: Effects of various data collection methods on survey errors. The strengths, weaknesses, and challenges of data collection modes and mixed-mode methods. Processes underlying data collection and practical challenges that arise with each mode; coverage error; nonresponse error; interviewer effects and training; timing; and mode effects.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SRAM 819 Applied Sampling
Crosslisted with: SOCI 819
Description: Design of probability samples, sampling populations of humans and unique challenges posed by such populations, restricted by cost and available sampling frames. Simple random sampling, stratification, cluster sampling, systematic sampling, multistage sampling, and probability proportional to size sampling, area probability sampling, and telephone samples.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SRAM 824 Advanced Quantitative Analysis in Marketing
Crosslisted with: MRKT 824
Prerequisites: GRBA 813 or equivalent
Description: Review, evaluation, and design of advanced marketing research investigations. State-of-the-art methodological issues relevant to marketing to provide an understanding of multivariate data analysis pertinent to the marketing literature. Analysis of linkage, structure, and causality/change for marketing phenomena.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SRAM 863 Basic Regression Analysis
Crosslisted with: SOCI 862
Description: The logic and techniques of sociological data analysis: use statistical software to run linear regression analyses and assess violations of regression assumption; the development of theoretically driven models; and the interpretation of results from linear regression analyses.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SRAM 865 Survey Design and Analysis
Crosslisted with: SOCI 465, SOCI 865, SRAM 465
Prerequisites: SOCI 205 and SOCI 206.
Description: Basic issues related to the design and analysis of sample surveys. The basics of questionnaire construction, sampling, data collection, analysis and data presentation.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SRAM 894 Professional Development in Survey Research
Description: Basic principles of practice including ethical requirements and procedures, Institutional Review Board (IRB) and Collaborative Institutional Training Objective (CITI), personal conduct, plagiarism. Introduction to relevant databases, data archives, key surveys. Practice in critical discussion, report and abstract writing, creating and presenting conference papers. Provides first year MS students with a grounding in key principles and components of professional practice needed for a career in survey research and related fields.
Credit Hours: 1-2
Min credits per semester: 1
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SRAM 895 Internship
Prerequisites: Permission
Description: Experience applying concepts and methods of survey research in preparation for a professional career.
Credit Hours: 3-6
Min credits per semester: 3
Max credits per semester: 6
Max credits per degree: 6
Format: FLD
SRAM 896 Practicum in Survey Research and Methodology  
**Prerequisites:** Permission  
**Description:** Application of theory and research gained during internship.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** IND

SRAM 898 Special Topics  
**Description:** Topic varies.  
**Credit Hours:** 1-3  
**Min credits per semester:** 1  
**Max credits per semester:** 3  
**Max credits per degree:** 24  
**Format:** LEC

SRAM 899 Masters Thesis  
**Prerequisites:** Admission to masters degree program and permission of major adviser  
**Credit Hours:** 1-10  
**Min credits per semester:** 1  
**Max credits per semester:** 10  
**Max credits per degree:** 99  
**Format:** IND

SRAM 902 Seminar in Research Methods  
**Crosslisted with:** SOCI 902  
**Prerequisites:** Permission  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 9  
**Format:** LEC

SRAM 915 Advanced Sampling  
**Description:** Advanced topics related to sampling error in surveys. Complex sample designs used to measure populations of humans, effect of nonresponse on sampling error and data analysis; methods available to "repair" the missing information; the implications of complex sample designs for analyses; and variance estimation.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 917 Principles of Survey Analysis II  
**Prerequisites:** SRAM 816  
**Description:** Key components of analytic models used in analysis of survey data. Analysis of variance (anova), linear regression (ols) and generalized linear model (glm) to include estimation of coefficients for a specified set of "structural equations" designated by a hypothesized causal structure (i.e., SEMs). Main statistical models for estimating nonlinear regression coefficients. Introduction to principles of maximum likelihood estimation (mle) and alternative estimation approaches. Focus on development of the ability to conduct independent quantitative research.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 920 Instrument Design and Development for Cross-cultural Surveys  
**Description:** Design instruments for multi-population surveys and to produce versions in different languages. Major approaches and strategies used in cross-national and cross-cultural research to design, test, adapt, and translate instruments for multilingual use.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 921 Total Survey Error  
**Crosslisted with:** SOCI 921  
**Description:** Common language of survey errors across social science disciplines. Causes of survey coverage, nonresponse, measurement, and processing errors; techniques used to reduce the error in practice; and statistical models and designs that exist to measure the error. Implications of cost and trade-offs between error sources.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 922 Randomized and Nonrandomized Research Design  
**Description:** Logic of causal inference in research design. Obstacles to causal inference, faulty measurement, un-representativeness, spuriousness, specification errors, and confounds, Experimental and quasi-experimental designs, with inferential pitfalls peculiar to each design. Statistical procedures to illustrate the logic behind various data analytic approaches and the different problems that can limit conclusions derived from these tools.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 941 Intermediate Statistics: Experimental Methods  
**Crosslisted with:** EDPS 941  
**Prerequisites:** EDPS 859 or EDPS 942  
**Description:** Computation, interpretation, and application of analysis of variance techniques, including factorial and mixed model designs. Computer and microcomputer software accessed.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC  
**Prerequisite for:** EDPS 942, SRAM 942

SRAM 942 Intermediate Statistics: Correlational Methods  
**Crosslisted with:** EDPS 942  
**Prerequisites:** EDPS 859 or EDPS 941  
**Description:** Various correlational-based statistical procedures presented, including linear and nonlinear regression, multiple regression, statistical control, analysis of interactions, the general linear model, factor analysis, and discriminant analysis.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC  
**Prerequisite for:** EDPS 941, SRAM 941
SRAM 946 Psychology of Survey Response  
Crosslisted with: PSYC 946  
**Description:** Cognitive and communicative processes affect on dynamics of survey interviewing and relationships to principles of survey design. Effects of question wording on comprehension; question order and context on attitude; communicative and retrieval processes on validity of retrospective behavioral reports; and impact of response alternatives on answers.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 947 Questionnaire Design  
Crosslisted with: PSYC 947, SOCI 947  
**Description:** Design of questionnaires for survey research and the theoretical and practical issues arising from them. Selection of appropriate measurement techniques for assessing opinions, past behaviors and events, and factual material.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 970 Theory and Methods of Educational Measurement  
Crosslisted with: EDPS 970  
**Prerequisites:** EDPS 870  
**Description:** Presentation of various measurement theories and concepts, including classical true-score theory, reliability and validity, test construction, item response theory, test equating, test bias, and criterion-referenced tests.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 971 Structural Equation Modeling  
Crosslisted with: EDPS 971  
**Notes:** EDPS 942 and EDPS 970 or equivalents required; EDPS 972 recommended.  
**Description:** Introduction to the techniques of path analysis, confirmatory factor analysis, and structural equation modeling with emphasis on the set-up and interpretation of different models using the LISREL program. Model testing and evaluation, goodness-of-fit indices, violations of assumptions, specification searches, and power analyses.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 972 Multivariate Analysis  
Crosslisted with: EDPS 972  
**Notes:** EDPS 941 and EDPS 942 or equivalents are required.  
**Description:** Techniques of multivariate analyses, including multivariate analysis of variance and covariance, multivariate multiple regression, multigroup discriminant analysis, canonical analysis, repeated measures (Multivariate model), and time series. Mathematical models presented and analyzed. Instruction complemented by appropriate statistical software packages.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC  
**Prerequisite for:** EDPS 980

SRAM 998D Seminar in Special Topics  
**Prerequisites:** Permission  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

SRAM 999 Doctoral Dissertation  
**Prerequisites:** Admission to doctoral degree program and permission of supervisory committee chair  
**Credit Hours:** 1-24  
**Min credits per semester:** 1  
**Max credits per semester:** 24  
**Max credits per degree:** 99  
**Format:** IND