Social work research utilizes both qualitative and quantitative methods. In the first semester the focus of the Strategies of Inquiry course is on the qualitative methods. In the second semester the emphasis is placed on quantitative methods. Students should, however, understand that researchers often combine the two to produce research that is both “in-depth” and highly generalizable. It is therefore crucial that students think about research strategies in the larger frameworks of design, method, implementation, outcome, and relevance.

In the second semester of the Strategies of Inquiry course quantitative methods is the subject of study. To this end topics to be studied include, survey research, sampling theory, experimental and quasi-experimental designs, validity and reliability, and an introduction to statistical analysis. Additionally, students will review the ways to read and understand quantitative studies in their own areas of interest.

In the study of social work research, application to matters that are meaningful to social work practice are crucial. There can be no social work research outside the boundaries of legitimate social work context. Therefore, the work for this semester will continue to be grounded in concerns of the profession.

**OBJECTIVES:**

To develop a critical understanding of the scientific method and its application in social sciences and social work;

To become familiar with the relationship between research design and research implementation and outcome.
To understand the relationship between theory and research; the role of conceptualization, operationalization, and measurement;

To gain a comprehensive knowledge of research-related concepts: sampling, reliability, validity, levels of measurement, and bias.

To gain a beginning mastery of survey research design, mixed method design, secondary analysis, and program evaluation.

To become familiar the use of statistical analysis.

To analyze the approaches to and merits of social work research studies;

To obtain practical experience in the different steps of research by designing research projects and by analyzing data.

**At the end of this course, students will be able:**

To systematically review, critique, and synthesis a given body of literature;

To formulate professionally relevant and theoretically productive research questions and hypotheses;

To demonstrate ability to test hypotheses and answer specific research questions;

To design a research study, using quantitative methods of data collection and analysis;

To understand how sampling choices and project implementation impact on study outcome;

To be knowledgeable about when to choose quantitative research methods to achieve project study goals;

To understand the value and limitations of statistical analysis.

To present findings in spoken and written form.
REQUIRED TEXTS


You may use earlier editions of these required texts usually at a lower cost.

RECOMMENDED TEXTS


Earlier editions are fine.

COURSE ASSIGNMENTS

A. Evaluating Research Articles

Choose two research articles that utilize a quantitative methodological approach. Evaluate these articles by responding to the following questions: 1) What is the stated purpose of the study? 2) What is the rationale for the study? 3) How would you describe the design and implementation method? 4) What statistic(s) were used? 5) What were the findings? 6) What were the conclusions? You may use Girden’s Evaluating research articles as a
guide. The articles should be from social work journals. Please include the copies of the articles with your analyses. This assignment should be approximately 3 to 4 pages excluding the title and reference page for each article précis, or a total of 6 to 8 pages for both. Please include the complete APA 6th edition reference of the article at the very beginning of each evaluation, at the top of the page. Please hand this in on the 5th class session. Grades will be reduced for late assignments at the discretion of the instructor.

B. Research Design

There will be one research design project. This will involve the evaluation of a new project at a social service agency. In order to evaluate this project you will be expected to use quantitative measures.

Evaluation Research Design: Students should write a proposal for a program evaluation to be addressed to an agency director. It should include a short description of the program to be evaluated, the need for the evaluation, the evaluation plan, and the design including how data will be sampled, collected, validated, and analyzed. There should be a short, 150 word or less, abstract in single space attached to the front of the plan, and a reference page in APA style, 6th edition. The plan should be between 6-8 pages, not including the summary, title, and reference pages. It should include a shortened version of an instrument used in the evaluation in an appendix. This will be handed on the 10th class session. Late papers will be subject to a reduction in the grade.

For this project you will propose to do survey research and provide a plan for a pilot study including an example of a short questionnaire. You will describe the methods you will use to ensure that the data collected giving you a sample that fits the needs of the proposal and that the questionnaire is both valid and reliable. You will describe data collection procedures, and you will note the type of statistics that will be used to analyze the findings. You will also discuss how you will arrive at your conclusions.

C. Data Analysis:
The final assignment is one that will involve students in analyzing data. There are two parts.

1. Mixed Methods Analysis: Students will design a mixed methods study using the
guidelines suggested by Creswell and Plano Clarke. Specific directions will be handed out in the 14th class session.

2. **Large study secondary analysis:** Students will receive an assignment on the 10th session of class which will ask them to analyze an available data set. There will be specific questions to address and students will use Stata (available at YU) to do the necessary data analysis. This assignment will be due on the **14th class session. (Parts of this assignment will be done in class).**

Late papers for parts 1 and 2 will be subject to a reduction in grade. While there are no page specifications for this assignment, it should not exceed 6 pages. Print-outs can be attached as appropriate.

**COURSE GRADES**

Grades will be determined by the following criteria:

- First assignment 30%
- Second assignment 30%
- Third assignment 30%
- Class participation and attendance 10%

The grade of “incomplete” will only be given at the discretion of the instructor.
COURSE WORK AND READINGS

I. Problem Formulation and Conceptualization (Sessions 1-2)

The identification of researchable problems and units of measurement are focused upon as the semester begins. What is feasible to research? What is measurable? How does one operationalize variables? These are questions that are answered through the readings and class discussions. The need to read quantitative research articles with a high level of understanding is addressed.

Readings
Weinbach and Grinnell: Chapt. 1 Methods
Suggested
Rubin, & Babbie: Chapt. 6. Problem Formulation and Measurement.
Chapt. 7. Conceptualization and Operationalization.

II. Measurement: Levels, Validity, Reliability, Errors, and Sensitivity (Sessions 3-4)

The concepts applicable to measurement are reviewed. Special attention is given to questionnaire construction. Reliability and validity are important topics as well as the avoidance of measurement error.

Readings
Weinbach & GrinnellP: Chapt 1-5 Introduction, Frequency, Central Tendency, Hypothesis testing
Suggested
Rubin, & Babbie: Chapt. 8. Measurement
III. Research Design, and Sampling (Sessions 5-6).

The concept of probability and the effects of sampling are discussed. How design will effect internal and external validity is studied in this section.

Readings
Weinbach & Grinnell: Chapt. 6.  Sampling and Hypothesis Testing
Creswell, Plano Clark: Chapt. 1-3  Mixed Methods

Suggested
Rubin, & Babbie: Chapt. 7  Conceptualization and Operationalization
Chapt. 14.  The Logic of Sampling

IV Program Evaluation Design (Sessions 7)
Program evaluation design is examined.

Rubin & Babbie Chapt. 10-11  Causal Inference and Correlational Designs
Experimental Designs

V Statistics for Data Analysis (Session 8)
Weinbach & Grinnell Chapt. 7-12  Correlation, Regression, T-Tests

VI. Data Analysis. (Sessions, 9-10)

Descriptive statistics and hypothesis testing is studied using study questions outlined in text. Students will conceptualize the use of statistics as one part of the research design and implementation process.

Readings
Acock: Chapt. (to be announced)  Using Stata
Suggested (Review)
Weinbach, & Grinnell Chapt. 3-6 Central Tendency and Variability, Normal Distributions, Hypothesis Testing, and Sampling.

VII. Data Analysis Continued, (Sessions, 11-12).

This section continues with data analysis and the topics of selecting statistical tests, correlation, and regression are studied.

Readings
Acock: Chapt. (to be announced) Using Stata

Suggested Review and Readings
Weinbach, & Grinnell Jr. Chapt. 7-9 Selecting Statistical Tests, Correlation, and Linear Regression.
Rubin and Babbie Chapt. 21 Inferential Data Analysis

VIII Mixed Methods (Session 13).
Creswell & Plano Clark Chapt. 4-7 Taking the Mixed Methods Approach .

IX Research for What? (Session 14)

Ethics and cultural competence are discussed.

Readings
Rubin, & Babbie Chapt. 4-5 Ethics and Politics of Research and Cultural competence.