

**Social Work 760**  
**Introduction to Social Work Statistics**  
**3 Units**  
**Fall 2023**

Instructor: Yuri Jang, PhD

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Office Hours: By appointment

Course Day: Wednesday

Course Start Time: 8:00am PST

Course Location: MRF204

**I. COURSE PREREQUISITES**

This is a doctoral level course. Registration by instructor's permission.

**II. CATALOGUE DESCRIPTION**

Foundation course covering univariate and bivariate descriptive and inferential statistics. Required lab covering basic computer skills and utilization of statistical software.

**III. COURSE DESCRIPTION**

Social Work Statistics 760 is the first of the three required statistical courses in the doctoral program. It covers the essential building blocks of statistical analysis, including measures of central tendency, variation, introduction to probability theory as the foundation for inferential statistics, and univariate and bi-variate inferential statistics. In addition to the class instruction, the course has a lab component where you will learn Stata and acquire skills in computer-based data analysis.

**IV. COURSE OBJECTIVES**

The overarching objectives of this course are

- (a) to provide you with a conceptual understanding of basic univariate and bivariate statistical models frequently used in social science, social work, education, gerontology, psychology, management, and public health research;
- (b) to provide you with the necessary operational skills needed for using quantitative methodologies to answer a variety of research questions;
- (c) to give you an appreciation for the strengths as well as the limitations of quantitative analysis methodologies; and
- (d) provide you with the foundation needed to master more advanced multivariate statistical techniques in your subsequent statistics courses.

**V. COURSE FORMAT/INSTRUCTIONAL METHODS**

This course assumes that students already possess (a) knowledge and understanding of basic mathematical and algebraic principles; (b) a solid grounding in the concepts and logic

of research methodology; and(c) a basic understanding of elementary statistical analysis.

Students are expected to read the assigned readings for each class and be prepared to discuss them. The reading assignments will be important preparation for students' comprehension and participation in class. Class/lab attendance is essential and students need to discuss anticipated absence with the instructors and notify them of any emergency related absence.

## VI. STUDENT LEARNING OUTCOMES

Upon completion of this course, you should have gained:

1. A conceptual understanding of the logic and assumptions underlying statistical inference. We will focus on the application of a number of specific statistical methods to a variety of research questions. This will enable you to:
  - a. Critically assess the use of statistical methods in empirically-based research; and
  - b. Actively participate in the design, implementation, analysis and interpretation of on-going research.
2. Basic computational skills which will contribute to an operational understanding of these statistical models;
3. An understanding of the interrelationships between methodological issues and statistical analysis;
4. Proficiency in accessing and utilizing the USC computer system and the Stata statistical package; and
5. Competence in reading and interpreting computer outputs and reporting the results of statistical analyses.

## VII. COURSE ASSIGNMENTS, DUE DATES, AND GRADING

Assignment	Due Date	% of Final Grade
1) Lab Assignment	Weekly	20%
2) Measurement Introduction	Unit 5/Unit 6	10%
3) Data Exploration Project	Unit 13/Unit 15	30%
4) Midterm Exam	Unit 7	20%
5) Final Exam	Unit 15	20%

Each of the assignments is described below.

### Lab Assignment (20%)

The lab instructor will assign practice exercises to help you master the application of the Stata software to statistical analysis.

### Measurement Introduction (10%)

Each student will select a scale of interest and will provide a summary (2-3 pages) that includes the following: (1) a complete reference for the scale; (2) history of its development and validation; (3) information on its content/scoring and psychometric properties; (4) how it has

been used in research and clinical settings; and (5) critiques. Please be prepared to make a brief presentation (about 10 minutes) in class (Unit 5 and Unit 6).

**Data Exploration Project (30%)**

Each student will select a secondary dataset and explore research questions applying statistical skills learned in class. A final report (10-15 pages) should include the following: (1) introduction [problem statements, literature review, and research questions/hypotheses]; (2) methods [sample, measures, and analytic strategies] (3) results [descriptive/bivariate and other preliminary analyses], (4) discussion [implications, limitations, and future steps], and (5) tables and figures. Please be prepared to make a brief presentation (about 15 minutes) in class (Unit 13). Final paper should be submitted by Unit 15.

**Midterm Exam (20%) and Final Exam (20%)**

These exams (Unit 7 and Unit 15) will include a combination of computational and conceptual problems. The format is open books and open notes. In addition to multiple-choice and short-essay questions, you will receive a dataset from a research project and will be asked to answer specific questions by applying relevant statistical methods. The exams will also include a few conceptual questions.

**Class grades will be based on the following letter grade distribution:**

Letter Grade		Grade Point Equivalent	
93–100	A	3.85–4	A
90–92	A–	3.60–3.84	A–
87–89	B+	3.25–3.59	B+
83–86	B	2.90–3.24	B
80–82	B–	2.60–2.89	B–
77–79	C+	2.25–2.59	C+
73–76	C	1.90–2.24	C
70–72	C–		

Within the School of Social Work, grades are determined in each class based on the following standards, which have been established by the faculty of the school: (1) Grades of A or A– are reserved for student work that not only demonstrates very good mastery of content but that also shows that the student has undertaken a complex task, has applied critical thinking skills to the assignment, and/or has demonstrated creativity in her or his approach to the assignment. The difference between these two grades would be determined by the degree to which the student has demonstrated these skills. (2) A grade of B+ will be given to work that is judged to be very good. This grade denotes that a student has demonstrated a more-than-competent understanding of the material being tested in the assignment. (3) A grade of B will be given to student work that meets the basic requirements of the assignment. It denotes that the student has done adequate work on the assignment and meets basic course expectations. (4) A grade of B– will denote that a student’s performance was less than adequate on an assignment, reflecting only moderate grasp of content and/or expectations. (5) A grade of C would reflect a

minimal grasp of the assignments, poor organization of ideas and/or several significant areas requiring improvement. (6) **Grades between C– and F will be applied to denote a failure to meet minimum standards**, reflecting serious deficiencies in all aspects of a student’s performance on the assignment.

As a professional school, class attendance/participation is an essential part of your professional training and development at the USC Suzanne Dworak-Peck School of Social Work. You are expected to attend all classes and meaningfully participate. For Ground courses, having more than 2 unexcused absences in class may result in the lowering of your grade by a half grade. Additional absences can result in additional deductions.

University of Southern California policy permits students to be excused from class for the observance of religious holy days. This policy also covers scheduled final examinations which conflict with students’ observance of a holy day. Students must make arrangements in advance to complete class work which will be missed, or to reschedule an examination, due to holy days observance.

Students are expected to notify the instructor by email of any anticipated absence or reason for tardiness.

## **VIII. INSTRUCTIONAL MATERIALS AND RESOURCES**

### **Textbook**

- Agresti, A. (2019). *Statistical methods for the social sciences* (5<sup>th</sup> edition). Pearson.
- Daniels, L., & Minot, N. (2020). *An introduction to statistics and data analysis using Stata*. Sage.

**NOTE:** Additional required and recommended readings may be assigned by the instructor throughout the course.

**COURSE OVERVIEW**

Unit	Topic and Reading	Activity
1 (8/23)	Introduction/Research Process <ul style="list-style-type: none"> <li>• Agresti, Chapter 1</li> <li>• Daniels &amp; Minot, Chapter 1</li> </ul>	
2 (8/30)	Sampling and Data Collection <ul style="list-style-type: none"> <li>• Agresti, Chapter 2</li> <li>• Daniels &amp; Minot, Chapter 2</li> </ul>	
3 (9/6)	Describing Data <ul style="list-style-type: none"> <li>• Agresti, Chapter 3</li> <li>• Daniels &amp; Minot, Chapter 6</li> </ul>	
4 (9/13)	Measurement Issues <ul style="list-style-type: none"> <li>• Reading to be assigned</li> </ul>	
5 (9/20)	Data Management <ul style="list-style-type: none"> <li>• Agresti, Chapter 3 &amp; 4</li> <li>• Daniels &amp; Minot, Chapter 4 &amp; 5</li> </ul>	Measurement Presentation Part 1
6 (9/27)	Probability and Estimation <ul style="list-style-type: none"> <li>• Agresti, Chapter 5</li> <li>• Daniels &amp; Minot, Chapter 7</li> </ul>	Measurement Presentation Part 2
7 (10/4)	Midterm Exam	
8 (10/11)	Significance Tests <ul style="list-style-type: none"> <li>• Agresti, Chapter 6</li> <li>• Daniels &amp; Minot, Chapter 8, 9 &amp; 10</li> </ul>	
9 (10/18)	Comparing Means <ul style="list-style-type: none"> <li>• Agresti, Chapter 7</li> <li>• Daniels &amp; Minot, Chapter 8, 9 &amp; 10</li> </ul>	
10 (10/25)	Cross Tabulation and Chi-Squared Test <ul style="list-style-type: none"> <li>• Agresti, Chapter 8</li> <li>• Daniels &amp; Minot, Chapter 11</li> </ul>	
11 (11/1)	Bivariate Correlation <ul style="list-style-type: none"> <li>• Agresti, Chapter 9</li> <li>• Daniels &amp; Minot, Chapter 12</li> </ul>	
12 (11/8)	No Class - Individual Meeting for the Final Project	
13 (11/15)	Data Exploration Project Presentation	
14 (11/22)	No Class – Thanksgiving Recess	
15 (11/29)	Final Exam	Final paper submission

Note: This schedule is subject to change.

## **UNIVERSITY POLICIES AND GUIDELINES**

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The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. Students may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the [Office of Academic Integrity \(OAI\)](#).

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [Student Handbook](#), the [Office of Academic Integrity's website](#), and [university policies on Research and Scholarship Misconduct](#).

### **Special Note on the Use of AI Generators**

AI generators, such as ChatGPT4 and Bard, can be useful tools. However, AI programs do not replace human creativity, originality, and critical thinking. AI text generators also may present incorrect or biased information and incomplete analyses. Within limited circumstances, with instructor permission and proper disclosure and attribution (see [USC Libraries' generative AI guide](#)), AI generators may be permitted in this course, per the University's academic integrity regulations. Using these tools without the instructor's permission, and without proper attribution and disclosure, constitutes a violation of academic integrity and will be reported to the [Office of Academic Integrity](#).

### **Academic Integrity**

The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It

stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. Students may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see [the student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#). Please ask the instructor if unsure about what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

### **Students and Disability Accommodations**

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers in the classroom or in practicum. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course/practicum placement. The LOA must be given to each course/practicum instructor by the student and followed up with a discussion. This should be done as early in the semester as possible, as accommodations are not retroactive. More information can be found at [osas.usc.edu](https://osas.usc.edu). Students may contact OSAS at (213) 740-0776 or via email at [osasfrontdesk@usc.edu](mailto:osasfrontdesk@usc.edu).

### **Support Systems**

Students' health and well-being are important. Reaching out for assistance with physical, emotional, social, academic, spiritual, financial, and professional wellbeing is encouraged. USC has resources and support systems in place to help students succeed. Additional resources can be found on the USC Suzanne Dworak-Peck School of Social Work Website at: <https://dworakpeck.usc.edu/student-life/we-care-student-wellness-initiative> or by reaching out to the Student Wellness Coordinator in the SDP Office of Associate Dean of Academic Affairs ([sdp.adc@usc.edu](mailto:sdp.adc@usc.edu)).

[\*Counseling and Mental Health\*](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for campus-based students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[VAC Students: Uwill Counseling Services](#)

Uwill is a counseling service available to VAC students. It is designed to support students during their time in the program. Uwill is a leading teletherapy platform that enables college students nationwide to receive real-time counseling online from a network of licensed mental health professionals. Students (enrolled or on leave of absence) can access up to six sessions (180 credits) per year with a licensed clinician at no cost to them.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title IX for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[Kortschak Center for Learning and Creativity](#) - 213-740-7884, [kortschakcenter@usc.edu](mailto:kortschakcenter@usc.edu)

The Kortschak Center offers academic coaching and resources.

[The Writing Center](#) - 213-740-3691, [writing@usc.edu](mailto:writing@usc.edu)

The Writing Center offers individualized feedback on any kind of writing.

[USC Campus Support and Intervention](#) - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call



Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call  
Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or [otfp@med.usc.edu](mailto:otfp@med.usc.edu)

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.