THE UNIVERSITY OF TEXAS AT AUSTIN SCHOOL OF SOCIAL WORK SOCIAL WORK STATISTIS

Course Number: SW 318 Instructor's name: Yeonwoo Kim, MA

Unique Number: 61260 **Semeste**r: Fall 2017

Meeting Place: SSW 1.212 Meeting Time: M W 2:30-4:00

Office Number: SSW 3.112

Office Hours: M W, 1:00-2:20, or by appointment. Please contact the instructor to arrange a time.

Instructor's email: Yeonwoo@utexas.edu

I. Course Description

This course is one of the two courses in research for undergraduate social work major. Completion of the liberal arts math requirement is a prerequisite for this course. This course introduces the basic concepts and applications of quantitative tools used to describe and interpret data in the conduct of social work practice and research. Students will learn how to select, calculate, and interpret appropriate statistics applicable to common data analysis situations related to direct practice, administration and planning, and policy. The course provides students with the opportunity to acquire personal computer skills to calculate statistics and present results. Students are required to complete SW318 prior to entering the major. Students majoring in social work must earn a grade of C or better in this course.

Quantitative Reasoning: This course carries the Quantitative Reasoning flag. Quantitative Reasoning course are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in you adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.

II. Course Objectives

At the end of this course, students should be able to:

- 1. Explain, calculate, and interpret descriptive statistics including: basic terminology, scales, notations, frequency distributions, measures of central tendency, measures of dispersion, and the normal distribution;
- 2. Read and analyze basic charts, graphs, and contingency tables;
- 3. Explain the logic of hypothesis testing in inferential statistics;
- 4. Explain when and how the following inferential statistics are used: t-test, analysis of variance (ANOVA), chi-square, correlation, and regression;
- 5. Calculate and interpret descriptive and inferential statistics by using computer technology;
- 6. Create a research question related to social work practice and policy and identify the correct statistical technique to the research question;

IIIa. Required Text

Frankfort-Nachmias, C., & Leon-Guerrero, A. (2017). Social statistics for a diverse society. Thousand Oaks, CA: Sage Publications.

IIIb. Required Materials

Software

Excel Data analysis add-on: We will use Microsoft Excel on your laptop plus the Excel data analysis add-on. Unfortunately, if you are a Mac user and do not have Microsoft 2016 (or 2017), you will have to purchase a workaround or borrow a laptop from the School of Social Work's Learning Resource Center (LRC). We will use the Excel data analysis add-on for exams and lab exercises.

Windows:

- 1. Start Excel
- 2. Click the Microsoft Office Button and then click Excel Options.



- 3. Click Add-Ins, and then in the Manage box, select Excel Add-ins.
- 4. Click Go.
- 5. In the Add-Ins available box, select the Analysis ToolPak check box, and then click OK.

Mac:

If you have Excel 2016:

- 1. Start Excel.
- 2. Click Tools, and then click Add-Ins.
- 3. Click the Data Analysis ToolPak and Solver option to enable it. Then, click OK.
- 4. Locate Data Analysis ToolPak and Solver on the Data tab.

If you have Excel 2011, you will actually have to purchase a work around:

- 1. Go to Stats Plus Mac
- 2. https://www.analystsoft.com/en/products/statplusmac/buy.phtml
- 3. Purchase a student license. To make it cheaper, purchase it with 3 other friends in class.

Online tutorials

We will use several online tutorials to guide use of excel add-ons.

Installing add-ins for Windows: https://www.youtube.com/watch?v=mIoS7IRo36c
Installing add-ins for Mac OS: https://www.youtube.com/watch?v=1R_aJ_Fli2w&t=113s

Computer Requirements

Students will need a laptop computer to complete homework assignments, exams, and in-class lab exercises. If you do not have a laptop, you may borrow one from the School of Social Work's Learning Resource Center (LRC). Computers are available from the LRC desk on a "first come / first served" basis, so plan ahead. In order to use the SSW computers, you need your UT EID and password. Details about UT EID accounts, including how to obtain one are available at the web address: https://utdirect.utexas.edu/nlogon/eid_suite/general/.

If borrowing a computer, you will need to make these arrangements before class begins.

Canvas

Canvas will be used extensively in this course. On Canvas, you will find most materials needed for this course. Use Canvas to find:

- Homework assignments to be completed online;
- Datasets to be used in lab exercises and exams;
- Course materials such as the syllabus;
- Powerpoint presentations used in lectures;
- All course announcements;
- Access to e-mail addresses to ask questions about assignments;
- Grades

While the University has invested significant resources in support of Canvas, there are still periodic outages and slow-downs. If you wait until the last minute to complete assignments on Canvas, you may encounter difficulties.

To reach your class site on Canvas, please go to http://canvas.utexas.edu. To assess the course website, you must have an internet connection and computer access. You will need a UT EID and password. The Help Desk available through the UT homepage (www.utexas.edu/its/help) can assist you with your computer and Canvas questions. You can also call them at 475-9400. Additionally, the Learning Resource Center at the SSW has computers and computer assistance.

IV. Teaching Methods

The primary means of instruction will be interactive lectures, hands-on in-class exercises working with excel, online discussion, and group presentation. Students will be expected to have done the assigned reading and activities before class and to actively participate in class. Class attendance and participation are required and essential for successful completion of this course.

V. Course Assignments and Student Evaluation

The final grade will be computed from grades on homework (20 points), <a href="footnote-state-st

1. Class attendance, preparation, and participation (10 points of total grade)

It is important that social work practitioners take responsibility for their own continued learning and act in a professional manner. Thus, students are expected to attend all classes, to complete assigned readings before the class meeting for which they are assigned, to compile questions regarding the material for class discussion, and to actively participate throughout class meetings.

Further, students are expected to attend all classes and to <u>arrive punctually</u>. It is very important due to the cumulative nature of this course. <u>Coming late and/or leaving early by more than 10 minutes will be considered a "missed" class</u>. However, the instructor understands things can happen. Therefore, students may have up to two "misses" in the event of unexpected emergencies, medical appointments, university-sanctioned events, or religious holidays. If you should miss a class, you are required to email the instructor before that class period to explain the reason. <u>Missing more than two classes will result in a 2% per missed class deduction</u> from the student's final grade. So students are advised to save misses for emergencies. To encourage class attendance, those students who miss no classes will earn an extra 2% to be applied to their final grade.

In the event a class must be cancelled, students will be provided an assignment to help them practice the material for that day. Conscientious completion of such assignments will count as attendance for that class. Assignments that are not completed or that are less than 50% correct will be considered an unexcused absence.

2. Homework assignments (20 points of total grade)

There are 5 scheduled homework assignments, which will be completed on Canvas. The purposes of the homework assignments are to allow you to review conceptual content and to provide you with opportunities to practicing solving statistical problems using the computer and excel. When you have finished the assignment on Canvas and submitted it for grading, you will receive immediate feedback. All homework assignments must be completed prior to the exam (by 8:30 am on the date of exam) for that material. At the end of that period, access to the homework will expire. Failure to submit homework during the assigned period will result in a "zero" as your score for the assignment.

Each student's homework assignment will be drawn randomly from a test bank of questions. Therefore, each time an assignment is begun, the question set will contain comparable, but not identical questions. The homework assignment may be redone as many times as you wish since you will be given a different selection of questions each time you redo the assignment. If you redo homework, your grade will be based on your highest score achieved. For any assignments where questions are not randomly drawn, the instructor will provide multiple versions of the assignment and will record only the highest grade earned.

NOTE: Canvas does not save your answers until you have "Submitted" the assignment. If your computer malfunctions or you become disconnected, you will have to redo the assignment. Furthermore, if you click out of the assignment without saving or submitting your answers, Canvas may freeze up and prevent you from accessing the questions for that homework assignment. Please have all of the Homework Practice PowerPoint files and data sets open before you begin taking the homework assignment, and be sure to save your answers before clicking out of the assignment to try to prevent this from occurring.

Students are expected to complete their homework assignments individually. Although I have no mechanism to be certain that students satisfy this expectation, many exam questions will be similar to what you will practice in homework. Therefore, doing your own work will likely improve your exam scores. If you have a difficult time answering homework questions or using Canvas, your performance on exams will likely be poor. Therefore, you are strongly encouraged to use class time and/or meetings with the instructor to address any problems you are encountering.

3. Tests (50 points of total grade)

There will be four tests, each time-limited to 70 minutes. Tests will cover all material assigned for and discussed in class. Questions on the tests will include conceptual questions from the text and lectures as well as statistical problems to solve using the computer and excel. Although each test will focus mainly on the content in the classes since the last test, class content is inevitably cumulative, so there will be cumulative parts to exam questions. Given this, students are encouraged to prepare for tests by focusing on the content since the last test and also reviewing the material from the entire semester. Grades on exams will be released only after all students have completed the exam. Review assignments and Q & A sessions will be provided before each test.

All materials needed to complete the exam will be available from Canvas. You may use one 8.5" X 11," two-sided page of notes (students will likely be much better prepared if they don't need to rely on it). No other materials, software, online content may be used in completing the exam. The use of e-mail or other types of communication between students or with others is also not permitted. Computer activity during the tests will be monitored and any violation of these policies will be treated as scholastic dishonesty and result in a grade of zero for that exam.

Exams are to be taken at the scheduled time. Only in the case of emergencies and then only with instructor approval will make-up exam be offered. Please notify the instructor of the situation as soon as it is reasonably possible. The date and time for the makeup exam will be scheduled at a time that is mutually convenient to the student and the instructor.

Exam #1: Wednesday, 9/27 Exam #2: Monday, 10/23 Exam #3: Monday, 11/13 Exam #4: Monday, 12/4

4. Group Presentation (20 points of total grade)

You will have an opportunity to lead a class for 20 minutes based on application of one of statistics: frequency distributions, measures of central tendency, measures of dispersion, the normal distribution, t-test, analysis of variance (ANOVA), chi-square, correlation, and regression. The presentation is a group effort, and each group should have no more than three students. The purpose of the presentation is to consider how a given statistical ability can assist you in social work practice or your professional work. As part of this assignment, you will: 1) collect information about the statistical method; 2) prepare a presentation about the basic concept and its applications to social work (or your area of interest); 3) develop a handout for the class that explains key components of your application; and 4) write an individual critique of your group's presentation. Detailed instructions for this assignment will be available on Canvas and presented in class.

5. Online Participation (optional extra credit)

Optional extra credit assignments may be offered during the semester. You may post an example of application of a specified analytic method on Discussions, Canvas. Anyone can post a comment for classmates' examples. Your examples will help classmates understand applying statistics in a range

of area. Students who posted an example will an <u>extra 1 or 2%</u> to be applied to their final grade. Detailed instructions for this assignment will be available on Canvas and presented in class.

VI. University and School of Social Work Policies

THE UNIVERSITY OF TEXAS HONOR CODE. The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

PROFESSIONAL CONDUCT AND CIVILITY IN THE CLASSROOM. The professor expects students to act as professionals in class. This means students should arrive on time for class, be prepared to participate in the class discussion, and show respect for one another's opinions. A course brings together a group of diverse individuals with various backgrounds. Students are influenced and shaped by such factors as ethnicity, gender, sex, physical abilities, religious and political beliefs, national origins, and sexual orientations, among others. We expect to learn from each other in an atmosphere of positive engagement and mutual respect. Social Work also deals with complex and controversial issues. These issues may be challenging and uncomfortable, and it would be impossible to offer a substantive classroom experience that did not include potentially difficult conversations relating to challenging issues. In this environment we will be exposed to diverse ideas and opinions, and sometimes we will not agree with the ideas expressed by others. Nevertheless, the professor requires that students engage one another with civility, respect, and professionalism.

unanticipated Distress. Students may experience unexpected and/or distressing reactions to course readings, videos, conversations, and assignments. If so, students are encouraged to inform the professor. The professor can be responsive and supportive regarding students' participation in course assignments and activities, but students are responsible for communicating clearly what kind of support is desired. If counseling is needed, students may contact a service provider of their choosing, including the UT Counseling Center at 512-471-3515 or online at https://cmhc.utexas.edu/.

POLICY ON SOCIAL MEDIA AND PROFESSIONAL COMMUNICATION. Public social networks are not private. Even when open only to approved or invited members, users cannot be certain that privacy will exist among the general membership of sites. If social work students choose to participate in such forums, please assume that anything posted can be seen, read, and critiqued. What is said, posted, linked to, commented on, uploaded, subscribed to, etc., can be accessed and archived, posing potential harm to professional reputations and prospective careers.

Social work students who use social media (i.e. Facebook, Twitter, etc.) and other forms of electronic communication (i.e. blogs, etc.) must be mindful of how their communication may be perceived by clients, colleagues, faculty, and others. Social work students are expected to make every effort to minimize material which could be considered inappropriate for a professional social worker in training. Because of this, social work students are advised to manage security settings at their most private levels and avoid posting information/photos or using any language that could jeopardize their professional image.

Students are asked to consider the amount of personal information posted on these sites and are obliged to block any client access to involvement in the students' social networks. Client material should not be referred to in any form of electronic media, including any information that might lead to the identification of a client or compromise client confidentiality in any way. Additionally, students must critically evaluate any material that is posted regarding community agencies and professional relationships, as certain material could violate the standards set by the School of Social Work, the Texas Code of Conduct for Social Workers, and/or the NASW Code of Ethics.

Social work students should consider that they will be representing professional social work practice as well as The University of Texas at Austin School of Social Work program while in the classroom, the university community, and the broader area communities.

- POLICY ON SCHOLASTIC DISHONESTY. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. For further information, the student may refer to the Web Site of the Student Judicial Services, Office of the Dean of Students: http://deanofstudents.utexas.edu/sjs/.
- **USE OF COURSE MATERIALS.** The materials used in this course, including, but not limited to exams, quizzes, and homework assignments, are copyright protected works. Any unauthorized duplication of the course materials is a violation of federal law and may result in disciplinary action being taken against the student. Additionally, the sharing of course materials without the specific, express approval of the professor may be a violation of the University's Student Honor Code and an act of academic dishonesty, which could result in further disciplinary action. This sharing includes, among other things, uploading class materials to websites for the purpose of distributing those materials to other current or future students.
- DOCUMENTED DISABILITY STATEMENT. Any student who requires special accommodations must obtain a letter that documents the disability from the Services for Students with Disabilities area of the Division of Diversity and Community Engagement (471- 6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). A student should present the letter to the professor at the beginning of the semester so that needed accommodations can be discussed and followed. The student should remind the professor of any testing accommodations no later than five business days before an exam. For more information, visit: http://diversity.utexas.edu/disability/.
- **RELIGIOUS HOLIDAYS.** By UT Austin policy, students must notify the professor of a pending absence at least fourteen days prior to the date of observance of a religious holy day. If the student must miss a class, examination, work assignment, or project in order to observe a religious holy day, the professor will give the student an opportunity to complete the missed work within a reasonable time after the absence.
- TITLE IX REPORTING. In accordance with Title IX of the Education Amendments of 1972, the University of Texas at Austin is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. Faculty, instructors, staff, and/or teaching assistants in their supervisory roles are mandated reporters of incidents of sex discrimination, sexual harassment, sexual violence, or sexual misconduct. Students who report such incidents will be informed of University resources. Incidents will be reported to the University's Title IX Coordinator and/or the Title IX Deputy for the

SSW, Professor Tanya Voss. Students, faculty and staff may contact Professor Voss to report incidents or to obtain information. Further information, including student resources related to Title IX, may also be found at http://socialwork.utexas.edu/dl/files/academic-programs/other/qrg-sexualharassment.pdf.

- **CAMPUS CARRY POLICY.** The University's policy on concealed fire arms may be found here: https://campuscarry.utexas.edu. You also may find this information by accessing the Quick Links menu on the School's website.
- **CLASSROOM CONFIDENTIALITY.** Information shared in class about agencies, clients, and personal matters is considered confidential per the NASW Code of Ethics on educational supervision and is protected by regulations of the Family Educational Rights and Privacy Act (FERPA) as well. As such, sharing this information with individuals outside of the educational context is not permitted. Violations of confidentiality could result in actions taken according to the policies and procedure for review of academic performance located in sections 3.0, 3.1, and 3.2 of the Standards for Social Work Education.
- USE OF E-MAIL FOR OFFICIAL CORRESPONDENCE TO STUDENTS. Email is recognized as an official mode of university correspondence; therefore, students are responsible for reading their email for university and course-related information and announcements. Students are responsible for keeping the university informed about a change of e-mail address. Students should check their e-mail regularly and frequently—daily, but at minimum twice a week—to stay current with university-related communications, some of which may be time-sensitive. Students can find UT Austin's policies and instructions for updating their e-mail address at http://www.utexas.edu/its/policies/emailnotify.php.
- **SAFETY.** As part of professional social work education, students may have assignments that involve working in agency settings and/or the community. As such, these assignments may present some risks. Sound choices and caution may lower risks inherent to the profession. It is the student's responsibility to be aware of and adhere to policies and practices related to agency and/or community safety. Students should notify the professor regarding any safety concerns.
- BEHAVIOR CONCERNS ADVICE LINE (BCAL). If students are worried about someone who is acting differently, they may use the Behavior Concerns Advice Line to discuss by phone their concerns about another individual's behavior. This service is provided through a partnership between the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal.
- **EMERGENCY EVACUATION POLICY.** Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation:
- Familiarize yourself with all exit doors in the classroom and the building. Remember that the nearest exit door may not be the one you used when entering the building.
- If you require assistance to evacuate, inform the professor in writing during the first week of class.
- In the event of an evacuation, follow the professor's instructions.
- Do not re-enter a building unless you are given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.

VIII. Evaluation of Instructor

Students will have two opportunities to evaluate the instructor. At mid-term, I will use my own form for obtaining your views on the course to date, and at the end of the term, I will use the official Course Instructor Survey (CIS) of the University of Texas at Austin, School of Social Work. Completion of these evaluations is, of course, voluntary, but they are helpful to the instructor. I am also available during office hours and at other mutually agreeable times to discuss the course with you.

GRADING SCALE	
94.0 and Above	Α
90.0 to 93.999	A-
87.0 to 89.999	B+
84.0 to 86.999	В
80.0 to 83.999	B-
77.0 to 79.999	C+
74.0 to 76.999	С
70.0 to 73.999	C-
67.0 to 69.999	D+
64.0 to 66.999	D
60.0 to 63.999	D-
Below 60.0	F

IX. Course Calendar

Please note that the instructor may make modifications to the syllabus during the semester. Any revised versions of the syllabus will be uploaded on Canvas.

Date	Content	Readings	Homework assignment	
Class 1 8/30/17	Overview of the course			
Class 2 9/4/17		Labor Day		
Class 3 9/6/17	Lecture on Chapter 1	Chapter 1. The What and the Why of Statistics		
Class 4 9/11/17	Lecture on Chapter 2	Chapter 2. The Organization and Graphic Presentation of Data	Canvas Assignment 1 (due by 8:30am on 9/27)	
Class 5 9/13/17	Lecture on Chapter 3	Chapter 3. Measures of Central Tendency		
Class 6 9/18/17	Lecture on Chapter 4 Lab exercise (Excel)	Chapter 4. Measures of Variability	Group Presentation 1 (Ch. 2) Canvas Assignment 2 (due by 8:30am on 9/27)	

Date	Content	Readings	Homework assignment
Class 7 9/20/17	Lab exercise (Excel)	Chapter 3. Measures of Central Tendency Chapter 4. Measures of Variability	Group Presentation 2 (Ch. 3)
Class 8 9/25/17	Lab exercise (Excel) Review for Exam 1 Q & A	Review Chapters 1-4	Group Presentation 3 (Ch. 4)
Class 9 9/27/17	Exam 1		
Class 10 10/2/17	Review Exam 1 Lecture on Chapter 5	Chapter 5. The Normal Distribution	
Class 11 10/4/17	Lecture on Chapter 6	Chapter 6. Sampling and Sampling Distributions	
Class 12 10/9/17	Lecture on Chapter 7	Chapter 7. Estimation	Canvas Assignment 3 (due by 8:30am on 10/23)
Class 13 10/11/17	Review for Exam 2	Review Chapters 5	Group Presentation 4 (Ch. 5) Group Presentation 5 (Ch. 6)
Class 14 10/16/17	Continue Review for Exam 2 Q & A	Review Chapters 6-7	Group Presentation 6 (Ch. 7)
Class 15 10/18/17	Library Day (CSWE Conference)		
Class 16 10/23/17	Exam 2		
Class 17 10/25/17	Lecture on Chapter 8	Chapter 8. Testing Hypotheses	
Class 18 10/30/17	Review Exam 2 Continue Lecture on Chapter 8 Lab exercise (Excel)	Chapter 8. Testing Hypotheses	
Class 19 11/1/17	Lecture on Chapter 9 Lecture on Chapter 10	Chapter 9. Bivariate Tables Chapter 10. The Chi-Square Test and Measures of Association	
Class 20 11/6/17	Continue Lecture on Chapter 10 Lab exercise (Excel)	Chapter 10. The Chi-Square Test and Measures of Association	Canvas Assignment 4 (due by 8:30am on 11/13)
			Group Presentation 7 (Ch. 8)

Date	Content	Readings	Homework assignment
Class 21	Review for Exam 3	Review Chapters 8-10	Group Presentation 8 (Ch. 9)
11/8/17	Q&A		
Class 22			
11/13/17	Exam 3		
Class 23	Review Exam 3		
11/15/17	Guest Lecture – John E. Sullivan, MSW		
Class 24	Lecture on Chapter 11	Chapter 11. Analysis of Variance	
11/20/17	Lab exercise (Excel)		
Class 25			1
11/22/17	Happy Thanksgiving!		
Class 26	Lecture on Chapter 12	Chapter 12. Regression and	Canvas Assignment 5 (due by
11/27/17		Correlation	8:30am on 12/4)
Class 27	Continue Lecture on Chapter 12	Chapter 12. Regression and	Group Presentation 9 (Ch. 11)
11/29/17	Review for Exam 4	Correlation	
	Q & A	Review Chapters 11-12	
Class 28			
12/4/17		Exam 4	
Class 29	Wrap-up: Last Class Warp-up,		
12/6/17	Celebration, and Evaluation		