

THE UNIVERSITY OF TEXAS AT ARLINGTON

School of Social Work

Semester/Year: Fall 2016

Course Title: Social Work Statistics

Course Prefix/Number/Section: SOCW 2325-002

Instructor Name: Michael Killian, Ph.D., MSW

Faculty Position: Assistant Professor

Faculty Profile: https://www.uta.edu/profiles/michael-killian

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Office Hours: Tuesdays, 2:00-3:00pm

Day and Time of Class (if applicable): Tuesday and Thursdays, 3:30pm-4:50pm

Location: Trimble Hall, Rm. 21

Equipment: A laptop computer with wireless capability or equivalent is required for all SSW classes.

Blackboard: https://elearn.uta.edu/webapps/login/

A. Description of Course Content

This course is designed to enhance students' skills as research consumers and in performing research and statistical analyses in social work and social science. Included in the course are descriptive statistical procedures including measures of central tendency, variability, shape and distribution along with associations between two variables. In addition, inferential statistics are covered including estimation and hypothesis testing.

B. Student Learning Outcomes

Educational Policy 2.1.2—Apply social work ethical principles to guide professional practice. Social workers have an obligation to conduct themselves ethically and to engage in ethical decision- making. Social workers are knowledgeable about the value base of the profession, its ethical standards, and relevant law. Social workers:

- make ethical decisions by applying standards of the National Association of Social Workers Code of Ethics and, as applicable, of the International Federation of Social Workers/International Association of Schools of Social Work Ethics in Social Work, Statement of Principles;
- tolerate ambiguity in resolving ethical conflicts; and
- apply strategies of ethical reasoning to arrive at principled decisions.

University of Texas at Arlington Core Curriculum

This course satisfies the University of Texas at Arlington core curriculum requirement in mathematics. As such, it contains core objectives and learning outcomes in critical thinking, communication, and empirical and quantitative reasoning. These are listed here with relevant assignments to assess these outcomes:

Critical Thinking Skills include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. Assessments: Exams and homework assignments.

Communication Skills include effective development, interpretation and expression of ideas through written, oral and visual communication. Assessments: Exams and homework assignments.

Empirical and Quantitative Skills include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. Assessments: Exams and homework assignments.

Educational Policy 2.1.3—Apply critical thinking to inform and communicate professional judgments. Social Workers are knowledgeable about the principles of logic, scientific inquiry, and reasoned discernment. They use critical thinking augmented by creativity and curiosity. Critical thinking also requires the synthesis and communication of relevant information. Social workers:

• Distinguish, appraise, and integrate multiple sources of knowledge, including research-based knowledge, and practice wisdom.

Educational Policy 2.1.4—Engage diversity and difference in practice. Social workers understand how diversity characterizes and shapes the human experience and is critical to the formation of identity. The dimensions of diversity are understood as the intersectionality of multiple factors including age, class, color, culture, disability, ethnicity, gender, gender identity and expression, immigration status, political ideology, race, religion, sex, and sexual orientation. Social workers appreciate that, as a consequence of difference, a person's life experiences may include oppression, poverty, marginalization, and alienation as well as privilege, power, and acclaim. Social workers:

- Gain sufficient self-awareness to eliminate the influence of personal biases and values in working with diverse groups.
- Recognize and communicate their understanding of the importance of difference in shaping life experiences.

Educational Policy 2.1.5—Advance human rights and social and economic justice. Each person, regardless of position in society, has basic human rights, such as freedom, safety, privacy, an adequate standard of living, health care, and education. Social workers recognize the global interconnections of oppression and are knowledgeable about theories of justice and strategies to promote human and civil rights. Social work incorporates social justice practices in organizations, institutions, and society to ensure that these basic human rights are distributed equitably and without prejudice. Social workers:

advocate for human rights and social and economic justice

Educational Policy 2.1.8—Engage in policy practice to advance social and economic well-being and to deliver effective social work services. Social work practitioners understand that policy affects service delivery, and they actively engage in policy practice. Social workers know the history and current structures of social policies and services; the role of policy in service delivery; and the role of practice in policy development. Social workers:

• analyze, formulate, and advocate for policies that advance social well-being

C. Required Textbooks and Other Course Materials

Weinbach, R. W., & Grinell, R. M., Jr. (2014). Statistics for social workers (9th Ed.). Boston: Allyn & Bacon.

D. Additional Recommended Textbooks and Other Course Materials

Garson, G. David (n.d.). "Title of Topic", from *Statnotes: Topics in Multivariate Analysis*. Retrieved August 25, 2008, from http://www2.chass.ncsu.edu/garson/pa765/statnote.htm.

Richard Lowry. Concepts and Applications of Inferential Statistics. Professor of Psychology. Vassar College

Poughkeepsie, NY USA. http://faculty.vassar.edu/~lowry/webtext.html

David Lane. HyperStat Online Textbook. http://davidmlane.com/hyperstat/intro_ANOVA.html

StatSoft Inc. 1984-2001. *The Statistics Homepage. Electronic Statistics Textbook*. http://www.statsoft.com/textbook/stathome.html

E. Descriptions of Major Assignments and Examinations

5 Homework Assignments

2 Examinations

In-class exercises

Homework assignments: Five homework assignments will be assigned during the semester with each covering material in the course text and discussed during lectures. Each homework assignment is intended to review and reinforce material for 2-3 chapters of the course text and accompanying lecture. Assignments will be completed and graded on Blackboard. The due dates for exam homework assignment are listed in the course schedule below.

In-class exercises: During lectures, the class will involve group and individual exercises. Class attendance and completion of the exercise during class time is required for credit during the exercises.

Examination I and II: There will be two examinations during the semester each testing the student's knowledge and engagement with course material. Exam I will cover course text chapters 1-6, and Exam II will cover material from course text chapters 7-11. Each week before an examination, the class will review and work through applied examples of statistical concepts and applied problems. Exams will be online through Blackboard and made available on the day of the exam. The dates of the examinations are the following:

Exam I: Thursday, Oct. 20, 2016Exam II: Thursday, Dec. 15, 2016

F. Grading

Grading

The following grades will be assigned based on the percentage of points accumulated (these categories may be adjusted by the instructor at his discretion depending on students' final scores). Each item is graded on a 100 point scale, which is then multiplied by its number of points. These points are then added to equal a final grade out of 100 points. The grade breakdown is below:

Grade Breakdown	
Homework #1	10 pts.
Homework #2	10 pts.
Homework #3	10 pts.
Homework #4	10 pts.
Homework #5	10 pts.

In-class exercises	10 pts.
Exam #1	20 pts.
Exam #2	20 pts.
TOTAL	100 pts.

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels; see "Student Support Services," below.

G. Make-Up Exams

Make-Up Exam or Assignment Policy: Students who do not take an exam will not earn any points. **Make up exams will not be given** unless the absent is authorized by the instructor (please check the "Attendance Policy" for detailed information). Generally, the professor will not grant an "incomplete" grade. The professor assigns "incomplete" grades only in rare circumstances.

- Failure to turn in any assignment by the due date will result in an automatic deduction of **10% of the total possible points/calendar day**. No assignments will be accepted **three days after the due date**.
- It is recommended that you check the rubrics provided for each assignment before turning in your work to ensure you have covered all areas

H. Attendance

At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients. As the instructor of this section,

I allow students to attend class at their own discretion and have elected to take attendance but will not factor attendance into the grade. However, attendance is strongly encouraged.

I. Course Schedule

W	/eek	Dates	Readings
1		Thurs., Aug. 25	Introduction to Course Review of Syllabus

2	Tues., Aug. 30 Thurs., Sept. 1	Introduction to Statistics and Research in Social Work Reading Assignments: Weinbach & Grinnell (2015). Chapter 1. Introduction to statistical analysis. (pp. 1-26). Supplemental Resources: "Principles of measurement. Parts 1 & 2" in http://vassarstats.net/textbook/
3	Tues., Sept. 6 Thurs., Sept. 8	Distributions Reading Assignment: Weinbach & Grinnell (2015). Chapter 2. Frequency distributions and graphs (pp. 27-44). Supplemental Resources: "Distribution. Parts 1, 2 & 3" in http://vassarstats.net/textbook/ Homework # 1 Due Sunday, Sept. 11th
4	Tues., Sept. 13 Thurs., Sept. 15	Reading Assignment: Weinbach & Grinnell (2015). Chapter 3. Measures of central tendency and variability (pp. 45-64). Supplemental Resources: "Introduction to Correlation and Regression. Part 1 in http://vassarstats.net/textbook/
5	Tues., Sept. 20 Thurs., Sept. 22	Normal distribution Reading Assignment: Weinbach & Grinnell (2015). Chapter 4. Normal Distributions (pp. 65-83). Homework # 2 Due Sunday, Sept. 25th
6	Tues., Sept. 27 Thurs., Sept. 29	Hypothesis testing Reading Assignment: Weinbach & Grinnell (2015). Chapter 5. Hypothesis testing (pp. 84-107). Supplemental Resources: "A First Glance at the Question of Statistical Significance" in http://vassarstats.net/textbook/
7	Tues., Oct. 4 Thurs., Oct. 6	Reading Assignments: Weinbach & Grinnell (2015). Chapter 6. Sampling distributions and hypothesis testing (pp. 108-129). Supplemental Resources: "Basic Concepts of Probability" in http://vassarstats.net/textbook/ "Introduction to Probability Sampling Distributions" in http://vassarstats.net/textbook/ Homework # 3 Due Sunday, Oct. 9th

8	Tues., Oct. 11	
	Thurs., Oct.	Review and Examples of Analyses
	Tues., Oct. 18	Review for Exam: Tuesday, Oct. 18
9	Thurs., Oct. 20	EXAM I: Thursday, Oct. 20
		T-tests and analysis of variance
10		Reading Assignment: Weinbach & Grinnell (2015). Chapter 7. T-tests and analysis of variance. (pp. 130-161).
		Supplemental Resources: "Introduction to between-subjects analysis of variance: Preliminaries" (read all four pages) in
	Tues., Oct. 25	http://davidmlane.com/hyperstat/intro_ANOVA.h tml
	Thurs., Oct. 27	· "ANOVA: Why Multiple Comparisons Using t-tests is NOT the Analysis of Choice" in http://davidmlane.com/hyperstat/intro_ANOVA.h tml
		· "t-test for two correlated samples" in http://vassarstats.net/textbook/
		· "t-Procedures for estimating the mean of a population and t-test for two independent samples" in http://vassarstats.net/textbook/ · StatSoft Inc. 1984-2001. The Statistics Homepage. Electronic Statistics Textbook. http://www.statsoft.com/textbook/stathome.html
		Chi-square
	Tues., Nov. 1	Reading Assignment: Weinbach & Grinnell (2015). Chapter 8. Chi-square (pp. 162-188).
11	Thurs., Nov. 3	Supplemental Resources: "Chi-Square Procedures for the Analysis of Categorical Frequency Data. Parts 1, 2, & 3" in http://vassarstats.net/textbook/
		Homework # 4 Due Sunday, Nov. 6th
12		Correlation
	Tues., Nov. 8	Reading Assignment: Weinbach & Grinnell. (2015). Chapter 9. Correlation (pp. 189-214).
	Thurs., Nov.	Supplemental Resources: "Introduction to Correlation and Regression. Parts 1, 2, & 3 in http://vassarstats.net/textbook/

13	Tues., Nov. 15 Thurs., Nov. 17	Regression Reading Assignment: Weinbach & Grinnell (2015). Chapter 10. Regression. (pp. 215-239). Supplemental Resources: "Introduction to Correlation and Regression. Parts 1, 2, & 3 in http://vassarstats.net/textbook/ Homework # 5 Due Sunday, Nov. 20th
14	Tues., Nov. 22 Thurs., Nov. 24	Statistical tests and evidence-based practice Reading Assignment: Weinbach & Grinnell (2015). Chapter 11. Other ways that statistical analyses contribute to evidence-based practice. (pp. 240-260).
15	Tues., Nov. 29 Thurs., Dec. 1	Review and Examples of Analyses
16	Tues., Dec. 6	Final Exam Review Week
17	Mon., Dec. 12 through Fri., Dec. 16	Final Exam Week - UTA- No class Exam II: Thursday, Dec. 15, 2016

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.

J. Expectations for Out-of-Class Study

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional three hours (for each hour of class or lecture per week) of their own time in course-related activities, including reading required materials, completing assignments, preparing for assignments and exams, and reviewing online content, etc.

K. Grade Grievances

See BSW Program Manual at: https://www.uta.edu/ssw/_documents/bsw/bsw-program-manual.pdf
Or MSW Program Manual at: http://www.uta.edu/ssw/_documents/msw/msw-program-manual.pdf

L. Student Support Services

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at http://www.uta.edu/universitycollege/resources/index.php.

The IDEAS Center (2nd Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email <u>IDEAS@uta.edu</u> or call (817) 272-6593.

The UT Arlington School of Social Work community is committed to and cares about all of our students. If you or someone you know feels overwhelmed, hopeless, depressed, and/or is thinking about dying by suicide or harming oneself or someone else, supportive services are available. For immediate, 24-hour help call MAVS Talk at 817-272-TALK (817-272-8255). For campus resources, contact Counseling and Psychological Services (817-272-3671 or visit https://www.uta.edu/caps/index.php) or UT Arlington Psychiatric Services (817-272-2771 or visit https://www.uta.edu/caps/services/psychiatric.php) for more information or to schedule an appointment. You can be seen by a counselor on a walk-in basis every day, Monday through Friday, from 8:00 AM to 5:00 PM in Ransom Hall, Suite 303. Getting help is a smart and courageous thing to do - for yourself and for those who care about you.

M. Librarian to Contact

The Social Sciences/Social Work Resource Librarian is John Dillard. His office is in the campus Central Library. He may also be contacted via E-mail: dillard@uta.edu or by Cell phone: (817) 675-8962, below are some commonly used resources needed by students in online or technology supported courses: http://www.uta.edu/library/services/distance.php

The following is a list, with links, of commonly used library resources:

Connecting from Off- Campus...... http://libguides.uta.edu/offcampus

N. Emergency Exit Procedures

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exits, which are the stairwells located at either end of the adjacent hallway. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

O. Drop Policy

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wwweb.uta.edu/aao/fao/).

P. Disability Accommodations

UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of **a letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of

conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

Q. Non-Discrimination Policy

The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.

R. Title IX Policy

The University of Texas at Arlington ("University") is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or imhood@uta.edu.

S. Academic Integrity

Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Additional information is available at https://www.uta.edu/conduct/.

T. Electronic Communication

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

U. Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit http://www.uta.edu/news/info/campus-carry/

V. Student Feedback Survey

At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit http://www.uta.edu/sfs.

W. Final Review Week

For semester-long courses, a period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.