

**Intermediate Statistical Methods in Social Work
SOCW 6347
Course Outline and Syllabus
Fall 2015**

Instructor: Courtney Cronley, PhD

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Office Hours: Mon. 11:30 AM – 12:30 PM; Thurs., 1:30 PM – 2:30 PM, or by appointment

Section Information: SOCW 6347

Time and Place of Class Meetings: Class Time: Thursday, 9:00 AM – 11:50 AM, SOCW Building A108

Recycling and sustainability: Please help our fragile environment by recycling this paper when finished, as well as plastic bottles, cans, etc., in the many recycling stations available in the building. Thanks.

Description of Course Content:

This course is the first in a series of three statistics courses required for the Ph.D. degree in Social Work. The overall purpose is to enhance student's skills in performing research and statistical analyses in social science.

The Specific Objectives of this Course are:

1. To increase the student's understanding of the role of research and statistics in social work practice, theory construction, and policy formation;
2. To increase the student's ability to interpret, utilize and analyze statistical outcomes presented in empirical studies in social science
3. To increase the ability of students to match appropriate statistical procedures to type of data, and research questions
4. To increase the student's ability to perform statistical analyses using SPSS software
5. To increase the ability of students to interpret research outcomes based on their statistical results

This focus of this class will be on the implementation, understanding, and interpretation of statistics used in social science research. SPSS will be demonstrated on many occasions in class, including an introductory overview, data manipulation and management. Note that one of the textbooks listed above is a guide on how to use SPSS. Students who are unfamiliar with the SPSS software may also want to consider:

1. The Office of Information Technology at UTA offers an Introduction to SPSS course, free to UTA students. For more information about this course and other technology courses go to:
<http://oit.uta.edu/cs/training/index.html>

Requirements: At least one introductory statistical course either in social work or another discipline.

Required Textbooks and Other Course Materials:

Rosenthal, J. A. (2012). *Statistics and Data Interpretation for Social Work*. New York: Springer Publishing Company, LLC.

Calculator or Computing Software

It is highly recommended that you purchase your own copy of SPSS. Most of your homework will require the use of SPSS. Use of SPSS for each statistical procedure will be demonstrated in class. Feel free to bring your laptop and follow along.

Descriptions of major assignments and examinations: We will have weekly online quizzes, weekly homework assignments, and a final exam. Weekly quizzes will cover the reading material for the preceding week. Students should complete the quizzes BEFORE coming to class the following week. All quizzes will be available online at Blackboard. For example, Quiz 1 will cover the material in Session 1 on Aug. 27. Students should complete the quiz online before 9 AM on Sept. 3.

Homework assignments will be given at the end of each class. Assignments are due at the beginning of the next class. The homework for Session 2, on Sept. 3, will be due by Sept. 10 at 9 AM. Homework assignments will be available on Blackboard. Students will be responsible for downloading the assignments from Blackboard each week. Students will submit the assignments via Blackboard as a Word or SPSS document. Written copies of homework assignments will not be accepted, and no credit will be given for late assignments. Weekly assignments will be graded as pass/fail.

The final exam will be online on Dec. 3 from 9 AM – 12 PM. Students will not be expected to come to class to complete the exam, but they should ensure that they have access to a robust computer with a reliable and high-speed Internet connection. If any students cannot ensure such access, the instructor will provide access.

Attendance: Your attendance and participation are essential. Although the expectation for Ph.D. level study is perfect attendance, any student who misses more than (2) scheduled classes will receive an “F” in the class. In the event of extenuating circumstances, please notify me ahead of time, to the degree that it is possible.

Grading:

Weekly assignments	20%
Weekly quizzes	40%
Final Exam	40%

Grading Scale:

90 – 100 = A

80 – 89 = B

70 – 79 = C

60 – 69 = D

< 60 = F

Course Schedule and Outline

Session Date	Main Topics	Readings	Assignments Due
Session 1 Aug. 27	Introduction to Course Principles of Inferential Statistics	Chs. 1-5	
Session 2 Sept. 3	Principles of Inferential Statistics	Chs. 9-15	Quiz 1 – Principles of Inferential Statistics I
Session 3 Sept. 10	T-tests: Testing hypotheses about two independent and two dependent means	Ch. 17 & Ch. 18, Ch. 22 p. 345 Ferguson & Zie (2007) Pandey & Bright (2008) Tyler et al. (2012)	Homework 1 Quiz 2 – Principles of Inferential Statistics II
Session 4 Sept. 17	ANOVA: Testing hypotheses about three or more means (one-way ANOVA)	Ch. 21 Nettles (1990)	Homework 2 Quiz 3 – T-tests
Session 5 Sept. 24	ANOVA: Testing hypotheses about three or more means (two-way ANOVA)	Ch. 23 (pp. 375 – 379, Sects. 23.5 – 23.6) Hattier et al. (2012)	Homework 3 Quiz 4 – One-way ANOVA
Session 6 Oct. 1	Chi-square: Comparing observed and expected counts	Chs. 6, 7, 19, & 20 Chitasz et al. (2013)	Homework 4 Quiz 5 – Two-way ANOVA
Session 7 Oct. 8	Measuring Association	Chs. 8 & 22 Cleverly & Kidd (2011)	Homework 5 Quiz 6 – Chi-square
Session 8 Oct. 15	Statistical Power Analysis	Ch. 16 Ferguson & Zie (2007) (rev.) Cohen (1992)	Homework 6 Quiz 7 – Measuring Association
Session 9 Oct. 22	Bivariate Linear Regression	Ch. 23 Palepu et al. (2012) Wenzel et al. (2010)	Homework 7 Quiz 8 – Statistical Power Analysis
Session 10 Oct. 29	Bivariate Linear Regression		Homework 8 Quiz 9 – Bivariate Linear Regression I
Session 11 Nov. 5	Handling Missing Data	Ch. 24 van der Heijden, Donders, Stijnen, & Moons (2006)	Homework 9 Quiz 10 – Bivariate Regression II

Session 12 Reporting Results
Nov. 12

Homework 10
Quiz 11 – Handling
Missing Data

Session 13 Final Exam Review
Nov. 19

Session 14 **Final Exam**
Dec. 3

Session 15 Individual meetings upon request
Dec. 10

Please note: The class schedule may change based on needs of the class.

Communication: Please send questions and concerns to me via email if you cannot meet during office hours. I will make every effort to reply within 24 hours. All course materials and announcements will be available on the course site at Blackboard. In addition, all changes in the syllabus and course schedule will be announced in class and through email. **Students are responsible for checking their UTA issued email and the Blackboard site regularly.**

Attendance Policy: Students are expected to be on time and attend all class sessions, complete reading assignments PRIOR to class, and be prepared to participate in class discussions and small group activities.

Drop Policy: Refer University web site for information about the University class drop policy and to the University calendar for information on the current drop date deadlines.

Americans With Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 - The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty **by the second week of class**, of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, **plagiarism, collusion**, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Series 50101, Section 2.2)

Student Support Services Available: The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 or resources@uta.edu for more information and appropriate referrals. You can also visit the website, www.uta.edu/resources.

Grade Grievance Policy: Information may be found in the Graduate Catalog.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

SPSS: This focus of this class will be on the implementation, understanding, and interpretation of statistics used in social science research. SPSS will be demonstrated on many occasions in class, including an introductory overview, data manipulation and management. Note that one of the textbooks listed above is a guide on how to use SPSS. Students who are unfamiliar with the SPSS software may also want to consider:

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Commonly used resources below:

Library Home Page	http://www.uta.edu/library
Subject Guides	http://libguides.uta.edu
Subject Librarians	http://www-test.uta.edu/library/help/subject-librarians.php
Database List	http://www-test.uta.edu/library/databases/index.php
Course Reserves	http://pulse.uta.edu/vwebv/enterCourseReserve.do
Library Catalog.....	http://discover.uta.edu/
E-Journals	http://utalink.uta.edu:9003/UTAlink/az
Library Tutorials	http://www.uta.edu/library/help/tutorials.php
Connecting from Off- Campus....	http://libguides.uta.edu/offcampus
Ask A Librarian.....	http://ask.uta.edu

References

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- Cleverly, K., & Kidd, S. A. (2011). Resilience and suicidality among homeless youth. *Journal of Adolescence*, 34, 1049 – 1054.
- Cohen, J. (1992). A power primer. *Quantitative Methods in Psychology*, 112(1), 155 – 159.
- Ferguson, K. M., & Xie, B. (2007). Feasibility of the Social Enterprise Intervention with homeless youth. *Research on Social Work Practice*, 18, 5 – 19.
- Hattier, M. A., Matson, J. L., Belva, B. C., & Adams, H. (2012). The effects of informant age and education level on childhood ASD symptom endorsement. *Research in Autism Spectrum Disorders*, 7, 398 – 404.
- Henry, A. J., Hevelone, N. D., Liptsitz, S., & Nguyen, L. L. (2013). Comparative methods for handling missing data in large databases. *Journal of Vascular Surgery*, 58(5), 1353-1359.
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- Palepu, A....Somers, J. (2012). Daily substance use and mental health symptoms among a cohort of homeless adults in Vancouver, British Columbia. *Journal of Urban Health*, 90(4), 740 – 746.
- Tyler, K. A., Akinyemi, S. L., & Kort-Butler, L. A. (2012). Correlates of service utilization among homeless youth. *Children and Youth Services Review*, 34, 1344 – 1350.
- van der Heijden, G. J. M. G., Donders, A. R., Stijnen, T., & Moons, K. G. M. (2006). Imputation of missing values is superior to complete case analysis and the missing-indicator method in multivariate diagnostic research: A clinical example. *Journal of Clinical Epidemiology*, 59, 1102-1109.
- Wenzel, S. L., Tucker, J. S., Golinelli, D., Green, H. D., & Zhou, A. (2010). Personal network correlates of alcohol, cigarette, and marijuana use among homeless youth. *Drug and Alcohol Dependence*, 112, 140 – 149.