COURSE SYLLABUS

I. COURSE DESCRIPTION

This course provides the foundation for understanding applied research in the profession of social work.

II. COURSE OVERVIEW

SOCW 6302 is the introductory course in applied social work statistical methods for the research sequence for the doctorate in social work. This course emphasizes the importance of developing a firm understanding of why and how to use specific statistical methods to answer specific research questions and on understanding how statistics should and should not be used. It focuses on teaching students to identify and utilize existing best practices in observational and experimental designs, sampling, measurement, and descriptive and inferential statistics. This utilization will guide social work practice and policy decision-making.

III. COURSE CONTACT HOURS AND STUDY HOURS

The 3-hour course credit is determined per CSWE Educational Policy and Accreditation Standards (E PAS).

REQUIRED TEXTS:


IV. CURRICULUM DESCRIPTION

The DSW program of SFASU includes an advanced curriculum focused on preparation for advanced practice and social work education.

V. PROGRAM LEARNING OUTCOMES (CSWE CORE COMPETENCIES)

1. Demonstrate Ethical and Professional Behavior
2. Engage Diversity and Difference in Practice
3. Advance Human Rights and Social, Economic, and Environmental Justice
4. Engage in Practice-informed Research and Research-informed Practice
5. Engage in Policy Practice
6. Engage with Individuals, Families, Groups, Organizations, and Communities
7. Assess Individuals, Families, Groups, Organizations, and Communities
8. Intervene with Individuals, Families, Groups, Organizations, and Communities
9. Evaluate Practice with Individuals, Families, Groups, Organizations and Communities

VI. COURSE OBJECTIVES (STUDENT LEARNING OUTCOMES: (SLO))

Upon successful completion of this course, students will be able to:

1. Articulate an understanding of statistics and their application to generalist social work practice, including practice with diverse and at-risk populations (Competency 4, 7, 9).
2. Explain, calculate and interpret descriptive statistics including basic terminology, scales, notations, frequency distributions, measures of central tendency, measures of dispersion, and the normal distribution (Competency 4, 9).
3. Explain, calculate and interpret inferential statistics including probability and hypothesis tests (Competency 4, 9).
4. Demonstrate an ability to utilize SPSS to run descriptive and inferential statistical tests (Competency 4, 9).
5. Demonstrate an ability to read and interpret basic charts, graphs, and SPSS output (Competency 4, 9).
6. Demonstrate an ability to identify and apply the correct statistical technique to a research question or hypothesis (Competency 4, 9).
7. Apply statistics in a value neutral manner that is consistent with the NASW Code of Ethics and IFSW/IASSW Code of Ethics (i.e., not discriminatory or prejudicial, especially toward diverse and at-risk populations) (Competency 1, 4, 9).
8. Identify examples of how statistics are utilized to guide and evaluate generalist social work practice, including evaluation of self, client outcomes, service delivery and programs (Competency 4, 9).
9. Articulate an understanding of the use of statistics and statistical data to advance the protection of human rights, as well as social and economic justice (Competency 3, 4, 9).

10. Demonstrate the principles of logic, scientific inquiry, and culturally informed and ethical approaches to building knowledge (Competency 1, 2, 4).

11. Articulate the understanding that evidence that informs practice derives from multidisciplinary sources and multiple ways of knowing (Competency 4).

VII. INSTRUCTIONAL METHODS

This is a face to face or hybrid class that will involve instructional supported learning. Content will be delivered both face to face (F2F) and via D2L/Brightspace. Methods of instruction will be based on active learning theories that will involve lecture by instructor, guest lecture, student discussion and presentations, small group activities and audio-visual presentations. Class discussions will add to and supplement the reading assignments and be based on the topics presented in the course materials. To be successful in the class, it is important that students take responsibility for their own academic performance, be active learners, read the assigned material, complete all assignments and respond to feedback. The course is organized into weekly learning sessions where students will be able to find the information to read and learn each week from assigned readings, class lecture and group exercises. PDF files and links to articles will be provided when available. Some content will be enhanced with online material and some examination may take place online.

VIII. COMPUTER REQUIREMENTS

This course will utilize D2L/Brightspace to support the delivery of course content - go to https://www.sfactl.info/d2l for more information.

IX. COURSE CALENDAR

Week 1  
Course Overview/D2L/EPAS  
Why study statistics?  
Implications (diversity, at-risk populations, practice, values, and ethics, EPAS)

What is the relationship between statistics and EBP (Evidence-based Practice)?

How do I prepare for data analysis?  
Constructing a codebook  
Setting up a SPSS database  
Data entry

How do I pick a statistic?  
Review of Key Research Methodology Concepts  
Statistics and the scientific method  
Levels of measurement

Readings: Healey & Donoghue- Chapters 1 & Appendix E-G; Holcomb- Chapter 1 & 2; NASW Code of Ethics; IFSW/IASSW Code of Ethics; CSWE EPAS
Week 2  Who was in my sample?
Frequency distributions
Cross-tabulated tables
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapters 2; Holcomb- Chapters 3 & 4

Week 3  How can I describe the distribution of scores for different variables?
Types of Distributions
Measures of central tendency (mean, median, and mode)
Measures of dispersion (variance, standard deviation, and range)
Comparing groups on central tendency and dispersion
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapters 3-5 & Appendix B-D; Holcomb- Chapters 6 & 7

Week 4  How can I compare one person’s data value to the distribution of all scores?
Measures of relative standing (percentiles, percentile ranks, and standard scores)
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapter 4 & 7; Holcomb- Chapter 8

Assignment I:  Descriptive Statistics

Week 5  Exam I—Chapters 1-4 & 7
How do I draw conclusions about a population based on sample data?
Probability sampling
Sampling Distributions
Hypothesis testing
Type I and Type II Errors
Significance Levels
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapters 6-11

Week 6  How does my sample compare to the population I think it came from?
Comparing samples and populations (One sample t-test & Chi-square goodness of fit test)
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapters 8, 10-11; Holcomb- Chapters 12 & 16

Week 7  How can I determine group differences when the variable of interest is nominal?
Tests of cross-tabulated tables (Chi-square test of independence)
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapters 11, & 14; Holcomb- Chapter 14 & 17

How can I identify differences in two population groups?
Tests comparing two different groups (Independent groups t-test & Mann-Whitney U test)
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapters 9, 12; Holcomb- Chapter 14 & 17

Week 8  Exam II—Chapters 6-11
How can I pinpoint group differences when there are more than two population groups? (cont.)

Week 9  How can I pinpoint group differences when there are more than two population groups?
Tests comparing more than two different groups (One-way ANOVA & Kruskal-Wallis Test)
Implications for generalist social work practice

Readings: Healey & Donoghue- Chapter 10; Holcomb- Chapter 15
**Assignment 2:** Statistical Tests

**Week 10**

**How can I evaluate change or differences within a single group?**

Parametric tests comparing differences within a single group (Correlated groups t-test & Repeated measures ANOVA)

Non-parametric tests comparing differences within a single group (Sign test & Wilcoxon matched-pairs signed ranks test)

Implications for generalist social work practice

**Readings:** Healey & Donoghue- Chapters 9-10; Holcomb- Chapter 13

**Week 11**

**How do I evaluate the impact of more than one predictor?**

Two-way ANOVA

Implications for generalist social work practice

**Readings:** Healey & Donoghue- Chapter 10, 14

**Week 12**

**How do I evaluate the impact of more than one predictor? (cont.)**

**How can I evaluate the impact of more than one predictor when the groups are different?**

Analysis of Covariance (ANCOVA)

Implications for generalist social work practice

**Readings:** Healey & Donoghue- Chapters 14

**Week 13**

**How can I evaluate the impact of more than one predictor when the groups are different? (cont.)**

**How can I describe the relationship between two variables?**

Measures of Association (Correlation coefficients, Pearson’s r, Spearman’s rho, PRE interpretation of association)

Implications for generalist social work practice

**Readings:** Healey & Donoghue- Chapters 12-13; Holcomb- Chapter 10

**Week 14**

**How can I describe the relationship between two variables? (cont.)**

**What can I do when more and more predictors are added to the analysis?**

Correlation, regression, and multivariate statistics

Implications for generalist social work practice

**Readings:** Healey & Donoghue- Chapters 14-15; Holcomb- Chapter 10

**Week 15**

**How do I interpret the strength and importance of relationships?**

Coefficient of determination

Effect size

Strength

Substantive vs. Clinical Significance

Statistical power analysis

Meta-Analysis

Implications for generalist social work practice

**Readings:** Healey & Donoghue- Chapters 15; Holcomb- Chapter 10

**Assignment 3:** Statistical Interpretation

**Week 16**

Exam III—Chapter 12-15

**X. COURSE REQUIREMENTS**

A. Class Attendance and Participation: In order for the class to discuss the readings, it is essential for you to read assigned material before coming to class, to attend class regularly,
and to participate in class discussions both face-to-face (F2F) and online. You are responsible for all material covered in class and assigned in the syllabus, whether or not you have attended class. Attendance is required. Excuse absences (i.e. illness, death or accident) will be considered case by case and granted by the instructor based on the merit and verifiability of the extenuating circumstance. Absences will be noted. Two or more unexcused absences will result in reduction of final grade.

**Cell Phones/Electronic Devices:** Because such devices are disruptive to the classroom environment, I ask that you refrain from using them during class unless they are made a part of the classroom exercise. I also ask that you either place such devices on silent mode or turn them off during class. It is particularly disrespectful to your classmates and instructor to text while class is in session. Repeated interruptions will result in a deduction of points from the final average. You might also be asked to leave the class.

**B. Readings:** The course outline provides a list of required readings for each week (you will receive a detailed schedule the first full week of class that will outline the readings to be covered each class). Since lectures and class discussions are designed to answer questions about the material and expand upon the basic concepts, you are expected to complete the assigned readings prior to class. Furthermore, you are expected to come to class prepared to discuss the information, as evidenced by active participation in class discussion and group learning exercises. For example, you should present well formulated questions and comments that demonstrate prior preparation.

**C. Homework Assignments:** A total of 19 homework assignments will be given over the course of the semester. The homework assignments will be given weekly via D2L and will focus on content addressed during lecture. Specifically, the assignments will provide you with an opportunity to practice using SPSS to apply the statistical procedures learned in class. Each homework assignment will be available immediately following the related lecture and will remain available until 1 hour prior to the exam that addresses the homework material. Each homework assignment is worth 10 points and you may complete the homework assignments up to 2 times during the availability period (only the highest grade will be counted). Once you start a homework assignment, you will have 2 hours (120 minutes) to complete it. Homework assignments not completed by the end of the availability period will receive a grade of “0”. You will not be allowed to make-up homework assignments.

**You are expected to complete your homework assignments individually.** The homework assignments are designed to prepare you for the exams. If you have difficulty completing the homework assignments, you will most likely have difficulty completing the exams. Thus, you are encouraged to use class time and/or meetings with the instructor to address questions about the material. No later assignments are accepted.

**D. Exams:** Three major application exams will be given during the semester.

- Exam I will cover *Why study statistics?* through *How do I compare one person’s data value to the distribution of all scores?*
• Exam II will cover *How do I draw conclusions about a population based on sample data?* through *How do I identify differences in two population groups?*
• Exam III (final exam) will cover *How do I evaluate the impact of more than one predictor?* through *How do I interpret the strength and importance of relationships?*

All material provided on the topics, including all assigned readings, discussions, lectures, and guest presentations are subject to examination. The exams will consist of matching, true/false, multiple choice questions, and/or essay questions. The exams will evaluate your knowledge of concepts related to statistics and ability to conduct statistical analyses. All of the exams will be closed book.

You are expected to take all exams at the scheduled time. Permission to miss any exam will be based on the policy for excused absences as stated in the SFASU General Bulletin (available online at [www.sfasu.edu/bulletin](http://www.sfasu.edu/bulletin)). Missing an exam without either prior permission or an excused absence will result in a grade of "0" on that exam. The instructor will schedule make-up exams. No late assignments are accepted.

**GRADING:**

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments – 3 @ 100 pts. each</td>
<td>300</td>
</tr>
<tr>
<td>Exams 3 @ 100 pts. each</td>
<td>300</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>600</strong></td>
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</tbody>
</table>

**GRADING SCALE:**

- A: 540 – 600
- B: 480 – 539
- C: 424 – 484
- D*: 363 – 423
- F*: 0 – 362

*Not applicable for credit toward graduate degree.

**XI. ACADEMIC INTEGRITY (SFA POLICY 4.1)**

The use of Artificial Intelligence (AI) and other electronic/online resources should be discussed with the instructor.

_The Code of Student Conduct and Academic Integrity_ outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized
by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.

Note: The following is specific to School of Social Work

Social work students are required to uphold the School of Social Work Academic and Professional Integrity Code they agreed to when they first enrolled in the program. The BSW/MSW/DSW Student Handbook and Academic and Professional Integrity Code outline acceptable student behavior. Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, visits to agencies, field trips, etc. The instructor shall have full discretion over what behavior is appropriate or inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

XII. Withheld Grades Semester Grades Policy (SFA Policy 5.5)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the coursework because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course to compute the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.
XIII. STUDENTS WITH DISABILITIES

To obtain disability-related accommodations, alternate formats, and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

XIV. Student Wellness and Well-Being

SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
The Dean of Students Office (Rusk Building, 3rd floor lobby)
www.sfasu.edu/deanofstudents
936.468.7249
dos@sfasu.edu

SFA Human Services Counseling Clinic Human Services, Room 202
www.sfasu.edu/humanservices/139.asp
936.468.1041

The Health and Wellness Hub “The Hub”
Location: corner of E. College and Raguet St.

To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:

- Health Services
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education

www.sfasu.edu/thehub
936.468.4008
thehub@sfasu.edu

Crisis Resources:
- Burke 24-hour crisis line: 1.800.392.8343
- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- johCrisis Text Line: Text HELLO to 741-741
Assignments
For these assignments, a dataset will be provided. Your task is to write a results section based on each assignment. Please review the APA manual on how to write a results section of a research paper. For the third assignment, you will work as a group to analyze the data and write the results section, but as a group, you must select a lead person.

Assignment 1: Descriptive Statistics
Run data analysis and provide descriptive statistics describing your results; make sure you use an APA-style table to report your statistics as well. In the text, you need to fully describe your results. At a minimum, you need to report all your variables and their level of measurement, their frequency distribution, their measures of central tendency (mean, median, mode, standard deviation, etc.), and the participants’ demographics.

Assignment 2: Statistical Tests
For assignment 2 and in preparation for assignment 3, you need to describe and discuss the following:

- Discuss descriptive and inferential statistics
- Bivariate analysis
- Multivariate analysis
- Regression analysis
- Correlational analysis
- Probability sampling
- Sampling Distributions
- Hypothesis testing
- Type I and Type II Errors
- Significance Levels
- Comparing samples and populations
- One sample t-test & Chi-square goodness of fit test
- Chi-square test of independence
- One-way ANOVA & Kruskal-Wallis Test
- Parametric tests comparing differences within a single group (Correlated groups t-test & Repeated measures ANOVA)
- Non-parametric tests comparing differences within a single group (Sign test & Wilcoxin matched-pairs signed ranks test)
- Statistical test assumptions and its implications

You might want to run different statistical procedures to help you describe and discuss the above items. Finally, provide a concluding statement regarding statistical usage and its implications for research and practice.

Assignment 3—Group Work: Statistical Interpretation
Run the data analysis and write up the results section based on the data analyzed. This assignment should include analysis from assignment 1 and additional statistical procedures (e.g., ANOVA, correlation, regression, etc.). You’re required to analyze the following variables and any other variables that determine women’s empowerment: education, marital status, age,
domestic violence, children, age of first birth, divorce, cohabitation, age of first sex, husband’s education, occupation, can refuse sex, ACEs, first sex unwanted or forced, empowerment variables such as control over cash, ownership of assets, etc., and to answer the following research question: *What factors impact and predict Nepal's women's empowerment?*


