

Social Statistics

Instructor: Dr. Wen H. Kuo

Office Hours : M, W, 9:30-10:30, Beh S room 425

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Class Hour: M, W, F: 8:35 am- 9:25 am, Beh S 115

Textbook:

Chava Frankfort-Nachmias and A. Leon-Guerrero, Social Statistics for a Diverse Society, California: Thousand Oaks: Pine Forge Press, 5th edition

Grade:

Closed book tests will be 70% of your final grade; home works, 10%, and lab assignments 20%. Grade will be based on your percentile standing in the class.

- A 90% and above**
- B 80-89 %**
- C 70-79%**
- D 60-69%**
- E 59% and below**

Lab sessions are required for all students. Sign up with the lab session with your teaching assistant.

Class objectives:

This class will teach statistical methods commonly applied in sociological studies. The class will have two major components. The first component is to learn descriptive statistics. This includes constructing percentage tables, tallying frequencies and their percentages, drawing graphs to show distributions, and computing central tendencies and variability. For descriptive statistics involves two variables, the class will also teach how to perform cross-tabulation, how to compute measures of association, regression, and correlation after an introduction to statistical inference.

The second component of the class will cover how to conduct statistical inferences based on samples. Here you will learn how to draw samples,

making inference by using normal distribution, sampling distribution, t distribution, and estimation. After learning these topics, you will learn how to conduct hypothesis testing, related to the mean difference test and Chi-square test.

Your goal in this class is to understand statistical methods and procedures, and learn when and how to apply them in solving actual research problems. Thus, this class is problem-solving oriented. To reach this goal, the textbook has included many short and useful exercise questions reflecting actual research situations. You are asked to do them. When you are able to solve these problems correctly, it suggests that you have mastered the learning materials.

SPSS Lab Session

At present, almost all statistical analyses are done with computer. There are many available software packages that designed for this purpose. In this class, we will only learn the software- SPSS. The lab is designed for you to practice statistical analysis by using the SPSS and to solve problems related to topics that are covered in the class.

Your teaching assistants will conduct lab sessions.

Class schedule:

Week 1 (1/12, 14, 16): Overview; the What and the Why of statistics

Week 2 (1/21, 23): Frequency distribution; Graphic Presentation

Week 3 (1/26, 28, 30): Measures of Central Tendency

Week 4 (2/2, 4, 6): Measures of variability; Quiz 1 on 2/6

Week 5 (2/9, 11, 12): The Normal Distribution

Week 6 (2/18, 20): Sampling and Sampling Distribution

Week 7 (2/23, 25, 27): Estimation

Week 8 (3/2, 4, 6): Quiz 2 on 3/2; Testing Hypotheses

Week 9 (3/9, 11,13): Testing Hypotheses; Relationship Between Two Variables: Cross-tabulation

Week 10 : Spring break

Week 11 (3/23,25,27): The Chi-square Test

Week 12 (3/30, 4/1, 3) Quiz 3 on 4/1; Measures of Association for Nominal and Ordinal Variables

Week 13 (4/6, 8, 10): Regression and Correlation

Week 14 (4/13, 15, 17): Regression and Correlation

Week 15 (4/20, 22, 24): Analysis of Variance

Week 16 (4/27, 29) Review, Quiz 4 on 4/29

Suggestions for studying statistics: form a study group with 3-4 classmates; review the lecture notes and read textbook carefully; practice exercise questions with a hand calculator; positive thinking to overcome anxiety.

ADA statement:

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.