Sociology (SOCI) 301

Social Statistics (Revision 3)

Delivery mode:	Individualized study online with eText
Credits:	3
Areas of study:	Arts or Social Science
Prerequisites:	Any successfully completed university course, in any discipline, at any level.
Precluded:	None
Challenge:	SOCI 301 is not available for challenge.
Faculty:	Faculty of Humanities and Social Sciences
Status:	Replaced with new revision, see the **course listing** for the current revision

Overview

Welcome to Sociology 301: Social Statistics. This course provides an overview of the uses of statistical analyses for the social sciences. You will learn about statistical reasoning and some of the techniques used to summarize data. In addition, you will learn how to formulate and test hypotheses.

Outline

SOCI 301 comprises 11 units. Each unit corresponds to a chapter in the textbook, and should take about a week to complete.

- Unit 1: Introduction to Statistics
- Unit 2: Mean, Variance, Standard Deviation, and Z Scores
- Unit 3: Correlation and Prediction
- Unit 4: Foundations of Inferential Statistics
- Unit 5: Introduction to Hypothesis Testing
- Unit 6: Hypothesis Tests with Means of Samples
- Unit 7: Effect Size and Statistical Power
- Unit 8: Introduction to the *t* Test: Single Sample and Dependent Means
- Unit 9: The *t* Test for Independent Means
- Unit 10: Introduction to the Analysis of Variance
- Unit 11: Chi-Square Tests and Strategies When Population Distributions are not Normal

Learning outcomes

SOCI 301 has eight major learning outcomes. After completing this course, students will be able to:

1. Calculate and display common descriptive statistics (i.e., measures of central tendency, measures of variance, etc.).

2. Explain the difference between sample and population, statistics and parameters.
3. Describe dependent variables and independent variables.
4. Calculate and interpret correlations.
5. Make statistical predictions.
6. Explain the dangers of using correlation to determine causation.
7. Conduct hypothesis testing.
8. Calculate various inferential statistics, including Pearson's r, various t-tests, ANOVA, and the Chi-square test.

Evaluation

To **receive credit** for SOCI 301, students must complete and submit all of the assignments and write the midterm and final examinations. Students must achieve a minimum grade of **D (50 percent)** on both the midterm and final examinations and an overall grade of at least D (50 percent) for the course.

Students will be evaluated on their understanding of the concepts presented in the course and on their ability to apply those concepts. The final grade will be based on the marks achieved for the following activities.

Activity	Weight
6 Assignments (5% each)	30%
Midterm Online Exam	30%
Final Online Exam	40%
Total	**100%**

The **midterm and final examinations** for this course must be taken online with an AU-approved exam invigilator at an approved invigilation centre. It is your responsibility to ensure your chosen invigilation centre can accommodate online exams. For a list of invigilators who can accommodate online exams, visit the **Exam Invigilation Network** .

To learn more about assignments and examinations, please refer to Athabasca University's **online Calendar** .

Materials

Aron, A., Coups, E. J., & Aron, E. N. (2019). *Statistics for the behavioral and social sciences: A brief course* (6th ed.). Pearson Prentice Hall.  (eText)

eText

Registration in this course includes an electronic textbook. For more information on **electronic textbooks** , please refer to our **eText Initiative site** .

Important links

- **Questions about our Program**
- **Academic advising**
- **Program planning**
- **Request assistance**
- **Support services**

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from

their individualized study counterparts.

Opened in Revision 3, July 12, 2021

Updated October 31, 2022, by Student & Academic Services

View **previous revision**