



**BALL STATE**  
**UNIVERSITY**

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# **Module 8 Overview & Checklist**

Analysis of Variance

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# 1 Learning Objective(s)

## 1.1 Textbook Learning Objectives

- Calculate and interpret confidence intervals for estimating a population mean and a population proportion.
- Interpret the Student's t probability distribution as the sample size changes.
- Discriminate between problems applying the normal and the Student's t distributions.
- Calculate the sample size required to estimate a population mean and a population proportion given a desired confidence level and margin of error.

## 1.2 Instructor Learning Objectives

- Understand the value of calculating a confidence interval in interpreting the "accuracy" of a certain statistic
- Appreciate how the calculation and interpretation of a confidence interval builds upon our previous understanding of distributions and probability
- Value how confidence intervals demonstrate the inherently probabilistic nature of quantitative analysis in research

# 2 Assessments

- ☐ Take midterm exam on Canvas by Oct 19 at 11:59pm EST

# 3 Lecture(s) & Participation

- ☐ Watch Module 8 Lecture on Canvas and Take Notes
- ☐ Complete and Turn-in Module 8 Lecture Check-in on Canvas

# 4 Reading(s)

*Under "Readings" in Canvas Module*

- ☐ Read Chapter 8 of Textbook

## 5 Homework & Assignment(s) Due

*Under "Assignments" in Blackboard Module*

*No Additional Assignments this week*

## 6 Looking Ahead

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Quiz 8 Next Week on Canvas