Lab 02: Inferential Statistics and Data Exploration

**Due date:** Wednesday, Feb 2, 2025 submitted as Word document to Canvas ***Lab02***  link

This lab counts 8 % toward your total grade.

**Objectives:** In this lab, you will practice your skills in

1. Inferential statistics
2. Confidence interval
3. Hypothesis testing
4. Data Distribution

**Format of answer:** Submit your answers as a **Word document** with graphs and verbal descriptions, properly labeled in the task sequence, with answers in red text and only relevant content included

# Task 1: Confidence Interval (0.5 pts)

A survey was conducted on a sample of 1,000 university students to determine the proportion of students who regularly use public transportation. Out of the 1,000 students surveyed, 72.4% reported that they regularly use public transportation.

1. Calculate the 95% confidence interval for the proportion of students who use public transportation.
2. Calculate the 99% confidence interval for the same proportion.
3. Interpret the results.