Course Project

Utah Valley University
Department of Electrical Engineering
ECE3710- 01, Probability and Statistics

Spring-2023

Dr. Alaa Abdullah, Ph.D., P.Eng.

Submission type: Online, Canvas
Due date: **Monday, April 17th, 2022 at 11:59 pm**

You are asked to perform some simple tasks using MATLAB/PYTHON in this project.

Google the average daily temperature for the first 3 months (January, February and March) of the last year in Provo, UTAH. This will serve as a population.

Compute:

1- The sample means and sample median of the population.
2- The sample variance and the sample standard deviation of the population
3- Use the Simple Random Sample (SRS) method and randomly select 20 samples. Then, compute the sample mean and sample variance.
4- Discuss the results obtained in parts (1), (2) and (3).
5- 5%, 10% and 20% trimmed mean of the population
6- The first and third quartiles of the population
7- The Dot plot, mode and median of the population
8- Construct a histogram for the population.
9- Construct a boxplot for the population. Does the boxplot show any outliers?
10- After getting these statistics on the population, predict the temperature for the first week of the next year.

Good Luck