University of California, Davis
Department of Biomedical Engineering

Fall 2019	**Probability and Statistics**	**BIM 105**
David M. Rocke	**for Biomedical Engineers**	**September 26, 2019**

Homework Assignment 1, Part 2
Due October 3, 2019
Show your work!

1. The article "The Selection of Yeast Strains for the Production of Premium Quality South African Brandy Base Products" (C. Steger and M. Lambrechts, Journal of Industrial Microbiology and Biotechnology, 2000:431–440) presents detailed information on the volatile compound composition of base wines made from each of several selected yeast strains. Following are the concentrations of total esters (in mg/L) in each of the wines made from 8 selected strains.

   284 163 219 302 205 178 134 162

   By hand, not using MATLAB,

   (a) Compute the mean concentration and the median concentration.
   (b) Compute the first and third quartiles of the concentrations.
   (c) Compute the standard deviation of the concentrations.
   (d) Give the five-number summary.

2. Use the data from the mini Wright meter that is in the same file `wright.csv` as the data from the standard Wright meter. Compute the five number summary, the mean, the variance, and the standard deviation using MATLAB. Show the MATLAB statements and the exact output.