## **STAT 231**

## Day 1

- An *empirical study* is one where knowledge is gained by observation or experiment
- Empirical studies deal with *populations* and *processes* which are groups of individual *units*
- A population is a collection of units
- A process is a system by which units are produced, typically over time
- Variates are characteristics of units which define what the measurement of the unit looks like
- Terms we use to describe variates:
  - o Continuous, ex. reals
  - o Discrete, ex. integers
  - o Categorical, ex. circle, square, triangle
  - o Ordinal, ex. small, medium, large
  - o Complex, ex. unstructured text