

## This document is subject to change

- March 29
- worth 250 pts (25% of the final grade)

### Ch 6

- definition/properties of the random variable
- mean/expected value of a probability distribution
- continuous vs discrete
- normal distribution
- finding cumulative probabilities for the normal distribution
- finding a  $z$  score related to a specific cumulative probability
- using  $z$  scores for finding cumulative probabilities for the normal distribution
- comparing variables that use different scales
- the binomial random variable
  - conditions
  - parameters  $(n, p)$
  - properties  $(\mu, \sigma)$
  - equation for finding probabilities
- normal approximation for the normal random variable
- sampling distributions of the sample proportion and sample mean
- meaning of the standard error

### Ch 7

- point estimates
- interval estimates
- constructing a confidence interval with a given acceptable error ( $\alpha$ ).
- margin of error
- create confidence intervals for
  - sample proportion
  - sample mean

- $t$  distribution
  - when to use
  - what assumptions are made
- how to choose a sample size