IF STUDENT IS OPTING INTO THE 29 APRIL (150 MINUTE) TEST, DO NOT USE THIS STUDY GUIDE.

* Test will start at beginning of class and will be the only thing we do that day
* Test is closed book and closed notes, except for notesheet mentioned below
* Any Table needed will be provided
* Student should include equations needed on their notesheet, equations may not be provided
* No networked devices (phones, tablets, etc) in sight during test, no sharing of calculators
* You are allowed a two-sided 8.5x11 notesheet, which must be turned in with test
* Answers must show work, must be well organized, and must be legible

1. Understand the concept that a collection of sample means tends to follow a Normal Distribution, regardless of the underlying distribution of the population itself. The more sample means, the closer to Normal.
2. Understand the conventional dividing point for number of samples required to constitute a “large” sample vs a “small” sample. Sample size equal to or greater than 30 can be considered “large” for ISE390 purposes.
3. Be able to do a “Large Sample Confidence Interval for the Population Mean” problem like Examples 5.1 and 5.3 in the text or like the examples worked in class.
4. Be able to do a “Confidence Interval for Proportion” problem like Example 5.12 in the text, or the example worked in class.
5. Be able to do a “Small-Sample Confidence Interval for Population Mean” problem like Example 5.15 in the text or the example worked in class. [this is the “Student t” type problem using Table A.3 in the back of the text.]
6. Be able to do a “Confidence Interval for the Difference Between Two Means” problem like Example 5.23 in the text of like the example worked in class.
7. Understand that unless driven otherwise, the dividing line between “rejecting the null hypothesis H0” and “not rejecting the null hypothesis H0” is p = 0.05. Specifically, if the p of the test, also known as the observed significance level of the test, is equal to or less than 0.05, then the null hypothesis H0 is rejected. If p is calculated to be > 0.05, then the null hypothesis H0 is considered plausible and therefore is not rejected.
8. Understand the following, which help you to determine how to state your null hypothesis H0 versus your alternate hypothesis H1.
   1. The null hypothesis should reflect the status quo, the default, the existing assumption that rules until it is shown likely to be false.
   2. The alternate hypothesis is the thing you are trying to show, the challenger to the status quo.
9. Be able to do a “Large-Sample Hypothesis Test for a Population Mean” problem like Example 6.1 in the text or like the example worked in class.

END