

**The University of Portland
Donald P. Shiley School of Engineering**

**EGR361
Analysis of Engineering Data**

HOMEWORK 7

Assigned: Monday, March 27, 2017

Due: Wednesday, April 5, 2017

Midterm Exam # 2: Monday, April 10, 2017 (closed-book, 2 crib-sheets, calculator)

Problems:

- 1) Text 4-53 (a, c)
- 2) Text 4-54 (a, c)
- 3) Text 4-59 (b)
- 4) Text 4-62 (b, c); Assume $\alpha=.05$
- 5) Text 4-65 (a)
- 6) Text 4-74
- 7) Text 4-79
- 8) Text 4-80 (a, b, c)
- 9)
 - a) A poll of 1068 registered voters in Oregon yielded that 513 favor Proposition EGR361. At the 5% significance level, test the claim that at least half of the voters favor the proposition. What is the P-value?
 - b) Construct a 95% two-sided confidence interval (CI) for p (the proportion of all voters who favor Proposition EGR361).
 - c) Calculate the number of voters required to be polled in order to be at least 95% confident that the error in estimating p (the proportion of all voters who favor Proposition EGR361) is less than 1.5%.

Resources for further reading:

<https://www.youtube.com/watch?v=T9nI6vhTU1Y>

<https://www.youtube.com/watch?v=Akci0nJmE2M>

<https://www.youtube.com/watch?v=vw2IPZ2aD-c>

<https://www.youtube.com/watch?v=M7fUzmSbXWI>