

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

**EGR361  
Analysis of Engineering Data**

**HOMEWORK 8**

**Assigned:** Friday, April 20, 2018  
**Due:** Friday, April 27, 2018  
**Final Exam:** Monday, April 30, 2018, 8:00-10:00 (closed-book, 3 crib-sheets, calculator)

**Problems:**

- 1) Text, 4-68 (page 204)
- 2) Text, 4-69\* (page 205)
- 3) Text, 5-5 (a, b) (page 238)
- 4) Text, 5-19 (page 250); Assume  $\alpha=0.05$
- 5) Text, 5-24\* (a) (page 251); Assume  $\alpha=0.05$
- 6) Text, 5-44 (page 258); Assume  $\alpha=0.05$
- 7) Text, 5-66 (page 271)
- 8) Text, 5-70\* (page 271)
- 9) \*In a recent double-blind study, 7 of 8,500 people vaccinated against a certain disease later developed the disease, while 18 of 10,000 people vaccinated with a placebo later developed the disease. Test the claim that the vaccine is effective in lowering the incidence of the disease. Use a significance level of 0.02. Calculate the P-value. Construct a 95% Confidence Interval on the difference in the disease rates in the two populations.

\*Optional (No extra credit)