

The University of Portland  
Donald P. Shiley School of Engineering

EGR361  
Analysis of Engineering Data

**HOMEWORK 6—Continuous Random Variables, Normal Distribution  
& Central Limit Theorem**

**Assigned:** Tuesday, June 7, 2016  
**Due:** Wednesday, June 15, 2016  
**Text:** 3-4, 3-5.1, 3-13  
**Final Exam:** Wednesday, June 22, 2016 (closed-book, 2 crib-sheets, calculator)

**Problems:**

- 1) Text, 3-26 (page 73)
- 2) Text, 3-35 (page 74)
- 3) Text, 3-43 (page 90)
- 4) Text, 3-50 (page 90)
- 5) Text, 3-54 (page 91)
- 6) Text, 3-201 (page 141)
- 7) Text, 3-203 (page 141)
- 8) Text, 3-204 (page 141) (Hint: Since  $X$  is a discrete distribution, use Eqn. (3-14) on page 99 of the Text to calculate the mean and the standard deviation of  $X$  and then apply Central Limit Theorem.)