EXAM 2 INFO

Math 262, Fall 2019

Exam 2 will consist of a take-home portion, distributed on November 8 and due at the beginning of class on November 11, and an in-class portion on November 11. The exam will test your knowledge of concepts, definitions, and theorems, as well as your ability to solve problems involving discrete and continuous random variables, from Sections 2.1 – 2.7 and Sections 3.1 – 3.4 in the textbook.

Take-Home

The take-home portion of the exam will contain a few problems similar to the homework problems in this course. For this part of the exam, you may use your textbook, your notes, a calculator, *R*, *Mathematica*, and *Wolfram Alpha*. Do not consult other sources, people, web sites, etc. Remember the honor code! All of the probability distributions that we have studied through Section 3.4 are fair game for this part of the exam.

In-Class

Books, notes, and internet-capable devices will not be permitted during the in-class exam. Calculators will be allowed, but probably not very useful (as on Exam 1 in this course). You should know the mean, variance, and probability mass/density functions for the following distributions:

- Binomial distribution
- Geometric distribution
- Poisson distribution
- Uniform distribution
- Normal distribution
- Exponential distribution

You should also know the definitions and basic properties of the moment-generating functions for discrete and continuous random variables.

Problems to Review

Consider the following problems for practice, especially those printed in ***bold****.*

- The *Supplementary Exercises* at the end of each chapter in the book.
  - Section 2.9: #**147**, 149, 151, 153, 154, **156**, **157**, 158, **159**, 160, 163, **164**, **165**, **166**, 167, 168 (pages 140 – 145)
  - Section 3.9: #**140**, **141**, 142, **143**, 144, **145**, 146, 150, **151**, 152, **153**, **156**, 157, **159**, 162, 166 (pages 230 – 237)
- All problems assigned in the homework (note that solutions are on the course web site).