

Math 115-03

Final Exam Information

The final exam is scheduled for Thursday, December 11, 1pm–2:50pm, in Room 2625. Special office hours during finals week:

- Monday, December 8: 9:00am – 10:00am
- Wednesday, December 10: 9:00am – 10:00am
- Thursday, December 11: 12:00pm – 1:00pm

Skills Checklist

1. Read all types of statistical graphs and tables.
2. Construct frequency distributions.
3. Compute and interpret the mean, median, and mode of a data set. Determine which is the most appropriate measure of center in a given situation.
4. Compute weighted means.
5. Compute the range, variance, and standard deviation of a data set.
6. Use the standard deviation to determine unusually small or large data values.
7. Compute the coefficient of variation.
8. Compute z -scores, percentiles, and quartiles.
9. Determine the 5-number summary and sketch the boxplot for a given data set.
10. Compare and interpret boxplots.
11. List the sample space for an experiment and identify events.
12. Know the difference between theoretical and experimental probabilities.
13. Determine the theoretical probability of an event.
14. Understand and use the properties of probability (complements, unions, intersections, independence, etc.).
15. Draw tree diagrams and determine probabilities in multistage experiments.
16. Compute conditional probabilities and determine if events are independent.
17. Determine the probability distribution for a random variable and compute the corresponding mean and standard deviation.
18. In a probability distribution, determine unusually small and large values of the random variable.

19. Determine whether a random variable is discrete or continuous.
20. Solve problems involving binomial probability distributions, including those involving the mean, standard deviation, and unusual values.
21. Solve problems involving Poisson probability distributions, including those involving the mean, standard deviation, and unusual values.
22. Solve problems involving normal probability distributions, including those involving the mean, standard deviation, unusual values, and inverse normal look-ups.
23. Find the confidence interval estimate for a population proportion.
24. Find the confidence interval estimate for a population mean (with σ known or unknown).
25. For paired quantitative data, compute and interpret the linear correlation coefficient and the regression equation.
26. Use the regression equation to make predictions.