

WBUOnline
SCHOOL OF MATHEMATICS & SCIENCES

Course Name: MATH 1306-VC01; Elementary Statistics

Term: Summer 2025

Instructor: Dr. William Hahn

Course Outcome Competencies:

1. The student will be able to distinguish between different types of data, different types of sampling, and different types of studies.
2. The student will be able to give accurate and appropriate graphical and numerical summaries of univariate and bivariate data.
3. The student will be able to calculate and interpret probabilities using tables, the binomial distribution, and the normal distribution.
4. The student will be familiar with the assumptions associated with statistical inference, and will know how to check those assumptions.
5. The student will be able to conduct and interpret statistical inference on proportions and means, particularly confidence intervals, sample size calculations, and hypothesis tests.
6. The student will be able to describe relationships between variables, to fit and interpret simple linear regression models, and to make and interpret predictions.
7. The student will be able to analyze one-way and two-way ANOVA.
8. The student will understand the importance of randomization in observational studies and experiments, particularly regarding cause-and-effect interpretations and generalization to a population.
9. The student will be able to think critically, identifying common statistical errors.
10. The student will become familiar with statistical software.

Tentative Schedule (All times are for the Central Time Zone):

Week 1: June 2 – June 9

Videos and Notes for Chapters 1, 2, and 3

Homework Assignments (5), Quiz 1 and Quiz 2 due by Monday, June 9 at midnight

Week 2: June 10 – June 16

Videos and Notes Chapters 4, 5, and 6

Homework Assignments (4), Quiz 3 and Quiz 4 due by Monday, June 16 at midnight

Week 3: June 17 – June 23

Videos and Notes for Chapter 7

Homework Assignments (2), Quiz 5 and Quiz 6 due by Monday, June 23 at midnight

Week 4: June 24 – June 28

Midterm covering Chapters 1-7 (Paper and Pencil Exam, **Proctored**)
due by Saturday, June 28 at midnight

Week 5: June 30 – July 7

Videos and Notes for Chapter 8

Homework Assignments (3), Quiz 7 and Quiz 8 due by Monday, July 7 at midnight

Week 6: July 8 – July 14

Videos and Notes for Chapters 12 and 1

Homework Assignments (4), Quiz 9 and Quiz 10 due by Monday, July 14 at midnight

Week 7: July 15 – July 21

Videos and Notes for Chapter 10

Homework Assignments (3) and Quiz 11 due by Monday, July 21 at midnight

Week 8: July 22 – July 26Final Exam covering Chapters 7, 8, 10, 12, 1 (Paper and Pencil Exam, **Proctored**)
due by Saturday, July 26 at midnight