**Course Syllabus**

(Tentative)

 STAT 7-50083, 50084, 50085

Elementary Statistics

**Instructor:**     Mike Sorensen            **Email:**             mike.sorensen@reedleycollege.edu

**Office:**            BUS 40                       **Phone:**            (559) 494-3000 Ext. 3615

**Office Hours:**MWF 8:00-9:00

                         Thursday 8:00-9:00 Virtual Office Hour Call (559) 634-0941

**Text:**

Basic Statistics for Business &
Economics, 10/e, Lind, et al
ISBN  9781260716313
Below is a link to the publisher's site. You can rent the book, or purchase an eBook at this site.

[https://www.mheducation.com/highered/product/basic-statistics-business-economics-lind-marchal/M9781260716313.htmlLinks to an external site.](https://www.mheducation.com/highered/product/basic-statistics-business-economics-lind-marchal/M9781260716313.html)

**Learning Outcomes:**

1. Interpret the output of a technology-based statistical analysis;

2. Calculate probabilities using normal and t-distributions;

3. Use appropriate statistical techniques to analyze and interpret applications based on data from disciplines including business, social sciences, psychology, life science, health science, and education.

4. Formulate hypothesis tests involving samples from one and two populations;

5. Distinguish the difference between sample and population distributions and analyze the role played by the Central Limit Theorem;

6. Interpret data displayed in tables and graphically;

7. Select the appropriate technique for testing a hypothesis and interpret the result;

8. Use linear regression and ANOVA analysis for estimation and inference, and interpret the associated statistics;

9. Identify the basic concept of hypothesis testing including Type I and II errors;

10. Distinguish among different scales of measurement and their implications;

11. Construct and interpret confidence intervals;

12. Calculate the mean and variance of a discrete distribution;

13. Determine and interpret levels of statistical significance including p-values;

14. Apply concepts of sample space and probability;

15. Identify the standard methods of obtaining data and identify advantages and disadvantages of each;

16. Calculate measures of central tendency and variation for a given data set;

**Outline:**

 Introduction to Statistics

* Describing, Exploring, and Comparing Data
* Probability (Fundamentals and Counting)
* Probability Distributions
* Normal Probability Distribution
* Estimates and Sample Sizes
* Hypothesis Testing – One Sample
* Hypothesis Testing – Two Samples
* Analysis of Variance
* Correlation Analysis/Regression

**Grading**

Your final grade will be dependent on exams, homework, and participation.

                                     Exams            80%

                              Homework            20%

Final grades will be based on the following scale:

                        90%-100%                  A

                        80%-89%                    B

                        70%-79%                    C

                        60%-69%                    D

                        Below 60%                   F

**Cellular Phones:**

Cellular phones must be turned off.  If you need to have your phone on, please see me before class.

**Calculators:**

You must have your own calculator to use during a test.  I will not allow you to share calculators.  You will not be allowed to use your phone as your calculator.

**Attendance:**

At the instructor’s discretion, you may be dropped if you miss more than four class meetings during the first nine weeks of the semester.

**No Make-up Exams:**

All Exams must be completed on time.  There will be no make up Exams.  Any student may request to take a test prior to the exam day.  Please make this request at least three days in advance.

**Accommodations for Students with Disabilities**

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 or the Rehabilitation Act, please contact me as soon as possible.

**Last day to drop this course:**

March 10, 2023