# Math 1050 Elementary Statistics

#### Vital Information

Dr. Mark R. Snavely

Office: DSC 292

Office Phone: 551-5714 e-mail: msnavely@carthage.edu

Course Website: http://www.marksnavely.us

Office Hours (In-Person and Zoom): Monday, Wednesday, Friday: 10:30-11:30; Tuesday, Thursday: 12:30-1:30 or just stop by! I don't mind drop-ins!

Welcome to Statistics! If any subject is more important than statistics for intelligent participation in today's society, I don't know what it is. On the other hand, if there is any subject misused more often than statistics in today's society, I don't know what it is! Our goal in this class is two-fold: learn to use and interpret statistics properly, and learn how to produce meaningful statistical information.

## The Text

The text we be using is HawkesLearning for *Beginning Statistics* by Warren, Denley, and Atchley, third edition. From now on, I will refer to the textbook with the letters **WDA**. We will cover most of the text. We will be using an online utility that accompanies our text called HawkesLearning. HawkesLearning includes an eBook copy of the text! If you want a print copy of the text, you can purchase one online from many outlets. You must have access to HawkesLearning! How and where you purchased your text affects your access to this important online tool.

If you received your textbook through the Textbooks for All program or purchased an access code through the bookstore, you should have an access code for HawkesLearning. If you are unable to purchase access right away, there is a temporary access option that you can use immediately. Instructions on how to register are provided on the website. The temporary trial option WILL run out in a few weeks, so do not think that you can string together a series of temporary access codes!

## AI, Chegg, and Any Other Online Tool

You will *not* have access to any online information during exams or quizzes. While these utilities can be helpful when *learning* material, you must do your homework and study for exams and quizzes without using any online tools. Using any online utilities on exams or quizzes is academic dishonesty and will be treated as such. I recommend that you read Carthage's Academic Honesty policy thoroughly; it is *very* strict.

#### Course Goals

By the end of the course, students should be able to do the following.

- Use technical writing and appropriate graphical and numeric methods to describe and interpret data sets.
- Compute and interpret confidence intervals for means and proportions.
- Conduct appropriate statistical tests, including written interpretation of test results.
- Compute linear correlation coefficients and determine regression line equations.
- Demonstrate sufficient knowledge of the course content.

## **Topics Covered**

This course will cover the following topics.

- Collecting data responsibly.
- Visualizing data.
- Measures of Central Tendency.
- Probability, including the binomial, Poisson, and Normal distributions.
- Estimating mean and variance.
- Hypothesis testing.
- Inference from two samples.
- Correlation and regression.
- Chi-Square distribution and analysis of variance.

#### Skills

In this course we will spend a significant amount of time developing these skills.

- Writing mathematics using complete sentences, correct notation, proper organization, and clear explanations.
- Using a spreadsheet as a computational and communication tool.
- Deciding whether to use technology or hand computation in a given situation.
- Problem solving using quantitative reasoning.

#### Grades

Your grade in this class will be based on the following items.

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\begin{array}{ccc} \text{HawkesLearning Homework} & 10\% \\ \text{Written Homework} & 10\% \\ \text{Online Quizzes / In-Class Work} & 10\% \\ \text{Formal Quizzes} & 10\% \\ \text{Four Exams} & 60\% \\ & 100\% \end{array}
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If you ever have any questions or concerns about your grade please come and talk to me. We may not be able to iron out every problem but at least we can talk about the situation and understand each other's concerns.

My grading scale for a score of x is given below.

$92 \le x \le 100$	A
$90 \le x < 92$	A-
$88 \le x < 90$	B+
$82 \le x < 88$	В
$80 \le x < 82$	B-
$78 \le x < 80$	C+
$72 \le x < 78$	$\mid C \mid$
$70 \le x < 72$	C-
$68 \le x < 70$	D+
$62 \le x < 68$	$\mid D \mid$
$60 \le x < 62$	D-
$0 \le x < 60$	F

## Homework Assignments

I maintain a web page containing the homework assignments for this course, together with other information. The main page is at the following address.

You can go directly to the course website, or use the link in the Schoology site. Homework assignments will be collected as specified on the web page and on MyMathLab, usually at the beginning of every class meeting except review days and exam days. Check the web page for specific assignments and due dates. I provide homework solutions as requested on the Help Page on the course website. The user name is **student** and the password is **mathhelp**.

Homework is due at the beginning of class. Online homework is set to be due at the start of class. Place any written assignments on the pile at the front of the room or scan the assignment or email it to me as a single pdf document before class begins. I will not accept late homework (written, online quizzes, etc.) unless there are exceptional circumstances, which will be determined on a case-by-case basis.

## Schoology

Carthage uses a course management system called Schoology. You've probably been introduced to this package elsewhere. I will certainly post grades there as often as I can, and I have included a link to the course website.

### Office Hours

During office hours, I promise to be in my office and ready to help you in any way I can. I realize that you may have a another class during my office hours, so I welcome appointments and drop-ins. If you stop by and the blind is up, tap on the door and I'll let you know if I can help you at that time! If I'm on the phone, after I see you, please go to the chairs in the hallway and wait. I'll come to you when I get off the phone. If the blind is down or the light is off in my office, there is a reason. You don't need to bother to knock or wave at me through the glass.

## Computers and Calculators

I plan to use Google Sheets as our primary spreadsheet in this course. You may also wish to learn how to use *Microsoft Excel*. You can obtain Microsoft Office 365 from the library for free. **On exams you will be required to use Google Sheets.** I will provide a calculator for you to use on exams, so you may not use the statistics package on your calculator.

## Four Important Items

- If you're working online, whether taking a quiz or working homework, the same rules apply as if you were working in person. For homework, I encourage you to work together, but you should be working on problems together, not just sharing answers. If you're taking a quiz or exam online, you should do your own work, with no assistance from any other person, website, book, text, notes, or anything that you would not be permitted to use in class.
- Please turn off all cell phones, music players, and other electronic devices before class, including exam days. If you need to have your communication equipment on during class, please talk to me before class starts. Texting during class is rude and not appropriate behavior. Headphones and earbuds are not permitted during exams or quizzes.
- Carthage College strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers due to your disability (including mental health, learning disorders, and chronic medical conditions), please let me know immediately so we can discuss options privately. To establish reasonable accommodations, you must register with Warren Wolchuk in Learning Accessibility Services (wwolchuk@carthage.edu).
- We do have class the day before break, and we may have quizzes those days. If you have three final exams in one day during the final exam period, please let me know so that arrangements can be made.