Clawson High School



**Statistics**

**Course Syllabus**

**2015-2016**

Instructor: Mrs. Zasadny

Classroom: 219

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Class Hour: 1st

**CLAWSON HIGH SCHOOL’S MISSION: The cooperative mission of Clawson High School is to encourage growth in students as independent learners who understand the importance of a well-rounded education.**

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# DISCRIPTION

 This course is organized around several very important topics, not only, in mathematics, but scientifically as well. Throughout the year we are going to be studying experimental design, data organization, measures of central tendency and variation, probability, data distributions, and estimation, as well as reminding students of the basic mathematical ideas and principles. The course is designed to provide students with an exposure to statistical analysis and data based research techniques.

# ORGANIZATION

 This course, which as stated previously, is organized around the basic principles of statistics, and is a requirement not only for graduation but also a requirement for other math classes. Students will work with the teacher during class to work on specific ideas within a chapter and section so that the students will be able to work on a daily assignment focused on that topic. Students will have time, in class and out of class, to finish the daily assignments which will later be turned in for credit and to see if the students understand the concepts involved. In addition, there will be daily and weekly assessments that focus on the topics of the week except when there is a test. The tests follow each chapter and the student will have plenty of notice when each test and quiz will be held. Specifically, the day it will be given and the material that is covered on that particular test or quiz. Along with chapter quizzes and tests, there is one midterm exam and a final exam to conclude the course.

COURSE OBJECTIVES

1. Introduce students to the different concepts and topics related to discrete mathematics, specifically statistical analysis and probability theory.
2. Help students understand the value of Statistics in acquiring knowledge and making decisions in today’s society.
3. Help students become critical and thoughtful consumers of information.

**COURSE TOPICS**

The course will cover the following topics:

1. Statistical Terminology
2. Organizing Data
3. Averages and Variation
4. Elementary Probability Theory
5. Binomial Probability Distribution
6. Normal Distributions
7. Sampling Distributions
8. Estimation
9. Hypothesis Testing
10. Correlation and Regression

# TEXT (S) AND HIGHLY RECOMMEND SUPPLIES

1. Required Text: Understandable Statistics, Brase/Brase Ninth Edition, Houghton Mifflin Company
2. Pencils, erasers, and marking RED pen
3. Loose-leaf paper and binder
4. 5 dividers
5. Graphing calculator
6. Graph paper
7. Colored pencils/ Highlighters

**Course Policies**

Absences/Makeup Work: When you return from an absence, you are responsible for the following:

• Turning in any homework that was due the day(s) of your absence.

• Reading the textbook section or other material that was used as a resource during

 your absence.

• Getting the homework assignment(s) you missed and updating your class notebook.

• Turning in your make-up work.

According to school policy, you have as many days as you were absent to turn in missed

assignments. However, you should turn in at least one make-up assignment as well as the

current assignment each day until you are caught up. If you are absent only on a test day, a note from your parents will be required, and you will be expected to make up the test on the day you return to class. If you are absent any more days, you will have as many days as you were absent to make up the test. Make-up tests must be taken outside of regular class time.

**Class Participation**:

At times we will all be Statistics teachers; therefore, be willing to share your ideas with others and to support your reasoning to help each other understand new ways to solve problems. In other words, participate fully in all class activities. Be “on the court” playing the game, not “in the stands” watching what is going on. Special Projects: We will be using projects to explore extended problems that are relevant to us and have real-world connections. For every project I assign, I will provide a scoring rubric that identifies and explains the important components of each project.

**Classroom Rules/Expectations:**

• Be responsible for your work. Bring supplies and homework every day.

• Be in your assigned seat ready to work when the tardy bell rings.

• Seek additional help immediately if a topic seems difficult or requires alternative

 approaches to assist in your understanding.

**No personal electronic devices allowed. (RED LIGHT ROOM)!! WILL BE TAKEN AWAY BY THE TEACHER. No food or beverages allowed.**

**Homework Policy**:

Homework will be assigned almost every school day (including over

weekends) in order to allow you to explore and practice what you are learning.

Most homework has one or more of the following purposes:

• Practice reinforces the learning of material already presented in class and helps you

 master specific skills.

• Preparation provides supporting information—history, skills, definitions—for

 what’s forthcoming; it will help when new material is covered in class.

• Extension or elaboration involves the transfer of previously learned skills to new

 situations.

• Integration asks you to apply skills and concepts to produce a single product.

I will make every effort to communicate the purpose of homework assignments to you.

Unless otherwise specified, homework will be due the following school day at the beginning of the period.

**For All Homework:**

• Show all calculations and work, even if you do it in your head or on a calculator.

• Explain your reasoning at the conclusion of each solved problem.

• When you get stuck on a problem, solve it as far as you can, then write a short

 explanation of your difficulty.

• Review the textbook discussion of new topics prior to beginning any homework assignment.

• Use your class notebook as a resource.

• Late assignments will be accepted, but a penalty will be incurred.

• No homework or make-up work will be accepted after a test day.

In addition, be proactive about creating study groups, using outside resources such as

dictionaries and websites, and discussing problems with each other and with me: any and all of these can help you understand the concepts we will be studying more thoroughly.

**Grading Policy**

Grade Distribution: Quarter grades will be calculated as follows: **50%** will be determined by tests and projects**, 30%** by quizzes, **10%** by assignments**, 5%** by investigations/projects, and **5%** by binder. **Semester Exam:** Students cannot retake the end of semester exam. The semester exam counts toward **20%** of the final grade and each marking period counts toward **40%** of the final grade.

**Types of Assessments**: Tests will be given every 2–3 weeks. Quizzes will be given every 3–4 days. If you have an unexcused absence before a quiz day you are expected to take the quiz the following day. Projects will be assigned throughout the course. For all assignments, I will provide a rubric or explain the expectations. Several projects will be assigned throughout the course of the year.

**Progress Reports**: You will be told of your progress and will be given a partial grade every 2–3 weeks.

**Course Procedures**

Class Binder: You will be required to keep a binder containing definitions,

explanations, and examples given in class; paperwork; investigations and other long-term

projects and a journal. Your notebook will be turned in for a grade. It should be clearly organized, and each section labeled clearly. For example:

\*Warm-up

• Notes (includes vocabulary)

• Homework (in chronological order)

• Investigations and Projects

• Journal

**Clawson Grading Scale:** (Appropriate rounding will be made)

**A 93% - 100% B- 80% - 82% D+ 68% - 69%**

**A- 90% - 92% C+ 78% - 79% D 63% - 67%**

**B+ 88% - 89% C 73% - 77% D- 60% - 62%**

**B 83% - 87% C- 70% - 72% E 0% - 59%**

***IMPORTANT: Parents can track their student’s grade on MISTAR. Instructions for MISTAR, including parent username and password,*** are mailed with school information at the beginning of the school year. If you have any questions please ask.

**Signature(s):**

Discuss this course syllabus with your parent(s) or guardian(s).

Please sign and return to me by (insert date:\_\_\_\_\_\_\_\_). I am looking forward

to working with you this year.

I, ( Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ), have read, understand, and accept the Algebra I course syllabus and the course expectations.

I, (Parent/Guardian Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_), have read, understand, and accept the Algebra I course syllabus and the course expectations.

**Personal Statement**

If you are having difficulties with any of the topics covered in this course, see me as soon as possible. Times when I am available for extra help are included below. In addition, keep the following thoughts in mind:

• When you worry, “I can’t do it,” tell yourself, “I can do it, and I just need to figure it out.”

• You can always ask for help.

• Set goals every week and recognize your accomplishments.

• Bring a positive attitude and a smile to class.

**Additional Information**

Extra Help: Get extra help when you need it. I will be happy to arrange extra help sessions for anyone who requests it.

School telephone number: 248-655-4200

Best time to call: -Before & after school by appointment, during prep hour by appointment

-Email checked multiple times daily (quickest response time)

-Voicemail checked daily

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