# CVHS STATISTICS 2 SYLLABUS 2024-2025

Welcome to Statistics 2! This class covers simple and multiple regression, fundamentals of experimental design, analysis of variance methods, and logistic regression. This class includes substantial use of statistical software. Prerequisite: AP Statistics.

This class is for students who want to continue on in their study of Statistics without involving Calculus. After completing this class students should be able to:

- 1. Choose the appropriate statistical model for a particular problem.
- 2. Know the conditions that are typically required when fitting various models.
- 3. Assess whether or not the conditions for a particular model are reasonably met for a specific dataset.
- 4. Have some strategies for dealing with data when the conditions for a standard model are not met.
- 5. Use the appropriate model to make appropriate inferences.

# **Course Materials**

### Primary Textbook

### Stat2: Building Models for a World of Data

#### by Cannon, Cobb, Hartlaub, Legler, Lock, Moore, Rossman, and Witmer

The authors' primary goal is to help students gain facility in the use of common statistical models. The text instructs students on working with models where the response variable is either quantitative or categorical and predictors (or explanatory factors) are quantitative or categorical (or both). The chapters are grouped to consider models based on the type of response and type of predictors.

### Statcrunch online statistical software

We will analyze all of the data sets in this class using the online statistical package <u>www.statcrunch.com</u>. Each student will be provided with an access code to make use of this site. Students should bring their laptops daily so they can access the site in class. This will be used to complete the majority of assignments in the class.

# Major Grades (Quizzes, Unit Tests, and Projects):

Major grades will count for 60% of the cycle average and are made up of the following:

- Quizzes short assessments of small chunks of information.
- Tests long assessments over a large amount of information.
- Projects can be small or large; involve large data sets or student generated data; completed in groups of 4-6 students

There will be a minimum of 2 assignments that are major grades in each grading cycle.

While many assignments will be completed with a partner or in a group, **at least one major grade for each cycle will be an individual assignment.** 

#### Minor Grades (Classwork and Homework):

Minor grade assignments are problem sets that could be from the textbook or a handout. Assignments and due dates will be clearly posted on Canvas. Students will complete assignments with a partner and submit their work in Canvas. Many problems will require the use of statistical software. Problems should be typed and are due **by the end of class on the due date.** Some of the problems from the textbook will be odd (answers in the back of the book) and some of the problems from the textbook will be even. This allows students to check their work for odd problems as they complete them and use those solutions to help with even problems. This is an independent study class, so students must apply themselves, take the initiative, and ask for help when needed. Minor grade assignments will be worth 40% of the cycle grade.

# Make-up Tests and Quizzes:

If you are absent on the day of a test or a quiz, you must make up the test or quiz DURING LUNCH or BEFORE SCHOOL (7:30AM-8:20AM).

# Test/Quiz Retake Policy:

Each student may retake up to 2 major grade assessments (only quizzes or tests) on which they received a failing grade each grading cycle. The retake will be an alternate assessment on the same content and the highest grade to be entered into the grade book for a retake is 70. Students must request the retake by emailing Mr. Barnes.

# Late Work Policy:

A minor grade assignment may be submitted 1 day late for a maximum grade of a 70.

# **Grading Policy:**

Grades will be computed using a weighted grading scale. The number of assignments in each category may vary from cycle to cycle, but the final grade will always be computed in the same manner:

Major Grades (Tests, Quizzes, and Projects):	60%
Homework:	40%

# **Cheating:**

The Carnegie Vanguard Honor Code states that students may not give or received unauthorized aid on any assignment or exam. In Statistics 2, this depends on the type of assignment.

- For classwork assignments students may work together to discuss and answer problems, consult their textbook or other resource, and ask other people (such as teachers or tutors) for help. Cheating on a classwork assignment is defined as copying the answers to that assignment from another student or the back of the book.
- For projects students may consult other students in their group (for a group project only) or Mr. Barnes for help. Cheating on a project is defined as copying any or all of the project from another student, group, or another source (including online sources), or having another person complete the assignment for you.
- For quizzes and unit tests, students may use only the materials provided by Mr. Barnes for that assignment. Cheating on a quiz or unit test is defined as copying from another student or an outside source, using a phone or computer to access any materials related to the assessment, or discussing questions from the assessment with other students before all students have completed the assessment.

If a student cheats on an assignment, they will receive a 0 for the grade on that assignment (with no opportunity to retake the assignment), their parent/guardian will be contacted, and they will be referred to the administration.

# Extra Help:

Mr. Barnes is available during lunch most days to answer questions or provide extra help, as well as during SSEP. Any student is welcome to come in. If you wish to come in for help, please make an appointment at least 24 hours in advance so Mr. Barnes can plan accordingly. It is Mr. Barnes' goal that every student be successful, so don't be shy if you have questions or need help. You can also contact him by email at <u>jbarnes2@houstonisd.org</u>.