

ANDOVER HIGH SCHOOL 2019-2020

Math Department: Probability & Statistics

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Overview We are constantly bombarded with data and information. In this class we will try to teach you to better interpret this information. If you are willing to work hard, use your time wisely, seek help when needed, and become involved in the class, you should be able to find success in Probability and Statistics. This is a required course for graduation. Success is directly related to your efforts. Work hard, ask questions, and participate. Good luck and have a great term!

Textbook **Anoka-Hennepin Probability & Statistics: 5th Edition (Haney & Johnson)**
All students will be issued a textbook. The textbook and solutions are available online.

Materials Bring paper and a pencil every day. A scientific calculator will be sufficient for the majority of this course. There will be a need for graphing calculators at certain times during the course, preferably the TI-83 or TI-84. There will be a limited supply of graphing calculators available for in-class use.

Grading	Percentages	Trimester Grades	
93 – 100	A	77 – 79.99 C+	65% Tests
90 – 92.99	A-	73 – 76.99 C	25% Quizzes
87 – 89.99	B+	70 – 72.99 C-	10% Final Exam
83 – 86.99	B	60 – 69.99 D	
80 – 82.99	B-	0 – 59.99 F	

Homework Homework is a very important part of learning. It is your responsibility to work on homework every day so that you know what you understand and what you still need to ask about. If you miss a day, it is your responsibility to get all make up work. **Notes and homework solutions will be posted online.** Successful completion of homework is often a key component to having success on tests. Students will complete a homework self-assessment for each unit.

Quizzes Many quizzes will be taken online through the course Moodle site. Your teacher will give you instructions for enrolling in the Moodle course. Quizzes will vary in point value but will have the important role of giving you an indication as to how well you know recently covered material and how ready you may be for upcoming tests. Students may retake any quiz (or take any missing quiz) for full points. It is expected that students will complete all quizzes from a unit prior to taking the associated test.

Tests Each of our 7 chapters will conclude with a chapter test. Each chapter test will be weighted the same. A large part of your grade is based upon test scores so it is important that you are prepared. Students may retake a test within two weeks of the original test date if the student completes the relearning protocols for that chapter. Note that this process typically takes several days outside of class. If you do miss a test due to an absence, you will be expected to take your exam upon your return. Special consideration will be given for extended absences.

Cell Phones Cell phones should not be used in this class unless you are working directly on course work. Please be aware of the school policy regarding cell phone use during tests. **The use of a cell phone/unauthorized electronic device during an exam will be considered cheating.**

Parent Notes Remember, **Prob & Stats is a required course for graduation.** As a parent, it is your responsibility to communicate with your child on a regular basis. Grades are posted online through AH-Connect. Course textbook, notes, video lessons, and full solutions are available online. Also, verify the email address you have on file with the school is current and correct.

Course Outline

<p>Unit 1</p> <ul style="list-style-type: none"> • Events, outcomes, and sample spaces • Tree Diagramming • Fundamental Counting Principle • Combinations and Permutations 	<p>Unit 2</p> <ul style="list-style-type: none"> • Calculating Probabilities • Law of Large Numbers • Dependent and Independent Events • Venn Diagramming • Conditional Probabilities and Two-Way Tables
<p>Unit 3</p> <ul style="list-style-type: none"> • More sophisticated tree diagramming • Probability Models • Expected Value • Random number generators and usage (simulations) 	<p>Unit 4</p> <ul style="list-style-type: none"> • The language and vocabulary of statistics and statistical studies • Data collection methods in statistics • Random digit tables • Sampling techniques • Confidence intervals (95%) • Experimental Design
<p>Unit 5</p> <ul style="list-style-type: none"> • Representing data through tables and graphs • Analyzing statistics (mean, median, mode, etc.) • Analyzing data for outliers • Bar graphs, pie graphs, time plots, dot plots, histograms, stem plots, & box plots. 	<p>Unit 6</p> <ul style="list-style-type: none"> • Bivariate Data Representation: Scatterplots • Form, direction, and strength • Correlation • Least-Squares Line (best-fit line for linear data)
<p>Unit 7</p> <ul style="list-style-type: none"> • Normal Distributions: Mean and standard deviation • The Empirical Rule • Z-scores and Percentiles • Probabilities in a normal distribution 	

Prob and Stats

Please complete the information below and return to your teacher.

Student Name _____

Grade: _____

Class Period: _____

How do you typically do in math classes? What sort of things help you learn better?

What would you like to do after you are finished with high school? What do you envision yourself doing in 10 years?

Are you involved in any school activities? If so, what are they and what is your role?

Is there anything important about you that I should know as your teacher?

Parent/Guardian Full Name: _____

Relation: _____

E-mail: _____

Work Phone: _____

Other: _____

I have read and understand the course information sheet.

Student Name _____ Signature _____ Date _____

Parent Name _____ Signature _____ Date _____