

# Course Syllabus: AP Statistics MTH521

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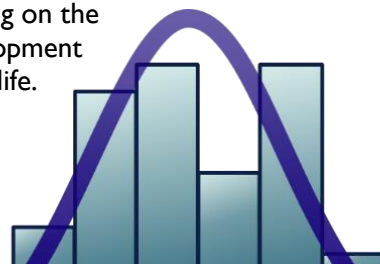
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**Course description:** Statistics is required for many college majors. The major topics in this course include exploring data, planning a study, anticipating patterns, and statistical inference. The course offers the student the opportunity to take the Advanced Placement Examination with the chance to earn college credit depending on the results of the examination. A graphing calculator is necessary. The entire course is a development of a logical approach to reasoning and recognitions of patterns that can be applied to daily life.

**Standards:** We will be covering the material required by the College Board for the AP Statistics exam. After the AP exam, we will cover additional material that is often included in college statistics courses but is not on the AP exam.

**Assessments:** Students will complete both formative and summative assessments throughout the year. These may include quizzes, homework assignments, writing reflections, or other means of measuring progress.



## Content

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four **broad** conceptual themes:

1. **Exploring Data:** Describing patterns and departures from patterns  
*Exploratory analysis of data makes use of graphical and numerical techniques to study patterns and departures from patterns.*
2. **Sampling and Experimentation:** Planning and conducting a study  
*Data must be collected according to a well-developed plan if valid information is to be obtained.*
3. **Anticipating Patterns:** Exploring random phenomena using probability and simulation  
*Probability is the tool used for anticipating what the distribution of data should look like under a given model.*
4. **Statistical Inference:** Estimating population parameters and testing hypotheses  
*Statistical inference guides the selection of appropriate models.*

Students who successfully complete the course and exam may receive credit for a one-semester introductory college statistics course

**Instructional Strategies:** A variety of strategies will be used, including (but not limited to) group work, individual work, teacher-led activities, and problem-based activities. Technology will be used throughout the course.

## Resources

1. Your **textbook**, *The Practice of Statistics 5e*, by Starnes, Tabor, Yates, and Moore copyright 2013 W. H. Freeman.
2. Either a 3-ring **binder** with an abundance of loose-leaf paper, or at least 2 spiral notebooks and a folder.
3. **Pencils and erasers** – All of your math work should be done in pencil unless I tell you otherwise.
4. **Calculator** – **everyone will need their own** TI-83(+) or TI-84(+)
5. Your **planner** (In case you ever need to go anywhere)
6. Your **school ID** needs to be visible each period.
7. You will be required to complete projects which incorporate data and graphs with your writing. If you do not have **computer access**, you will need to arrange to use the school computers.
8. You will be provided a copy of the formulas and tables that will be given to you on the AP Exam. You will be allowed to use these throughout the course and on tests and quizzes.

## Academic/Behavioral Expectations:

- Attendance is very important. I will be following the school attendance plan for absences and tardies. If you miss class for any reason, you will be expected to get the notes and the assignment for those days. The assignment will be posted on Canvas. Handouts will be on the shelf in the classroom. Please see another student to get a copy of any notes. If you miss a test or quiz, you will be expected to make it up the next day. If you are gone for multiple days, see me to schedule a make-up timeline.



- If you know in advance that you will be missing class see me to get any handouts or assignments before your absence. You are responsible for the learning that you miss.
- I expect you to behave as mature, responsible, respectful students. Remember to show your Mustang PRIDE! Should a problem arise with behavior, attendance, or academics, I may contact your parents and/or pursue assistance from the office.
  - I will follow the conduct policies outlined in your student planner. This includes responsible use of electronic devices. Should a problem arise, I may contact your parents and/or pursue assistance from the office.
  - Cheating will not be tolerated! If you are found to be cheating on any work for the class, consequences may include earning a zero, contacting your parents and Assistant Principal and/or an F for the course. We will follow the plagiarism policy outlined in your planner.
- If you start to fall behind in this class, the secret is to get help IMMEDIATELY. The longer you wait, the tougher it gets to catch up. I will be available before and after school most days. Let me know when you want to come in so you don't have to spend time trying to track me down. There will be a math teacher in C241 every hour. See me for a pass if you would like to go there. You can also learn a lot by working with your fellow classmates. Working together is strongly encouraged.



### **Grading Plan**

Grades are based weighted categories. Your grade will be based on the following categories:

**Tests: (45%)** Tests will always be announced in advance. Tests are designed to be completed in a single period, and no additional time will be given.

**Quizzes: (10%)** These may be announced or unannounced. They are also to be completed in the allotted time.

#### **Homework & Projects (30%)**

1. **Homework:** Homework is an essential part of this course. In order to be prepared for the AP exam, you must be completing ALL of your homework ON TIME so that you can arrive to class with any questions you may have and participate in classroom discussions. At times homework may be collected or graded.
2. **Homework Learning Checks (HLC):** Problems similar to recent homework assignments will be selected to assess your understanding of current material. All work must be shown
3. **Other assessments:** Other assignments or projects will be assigned throughout the year. Information will be given at the time the assignment is made.
4. **Late Work:** Assignments can be turned in a reasonable amount of time for full credit. An assignment is considered late if it is not turned in at the time I collect it—this means that even if you turn it in during the same class period, it will be counted late.

**Semester Exam: (15%)** Exams will be given during exam days during each semester, and will be worth approximately 15% of your semester grade.

**Extra Credit** - I may make small amounts of extra credit available at various times during the year – but don't count on it. Extra credit will not be available during the last week of each semester. When extra credit is assigned a due date, *none will be accepted late.*

**Grading Scale:** The DCSD grading scale will be followed as listed in your student planner

<b>A 93-100</b>	<b>B+ 87 – 89</b>	<b>C+ 77 – 79</b>	<b>D+ 67 - 69</b>	<b>F 0 - 59</b>
<b>A- 90 - 92</b>	<b>B 83 - 86</b>	<b>C 73 – 76</b>	<b>D 63 - 66</b>	
	<b>B- 80 - 82</b>	<b>C- 70 – 72</b>	<b>D- 60-62</b>	

### **Communication:**

PowerSchool will be updated frequently, so you can keep track of your grade. If you have any questions now or in the future, feel free to contact me at [jwarnke@dbqschools.org](mailto:jwarnke@dbqschools.org) or at the phone number listed at the top of this syllabus.