

**Statistics**  
**Danvers High School**  
**2013 - 2014**  
**B Block**  
**8:29am - 9:22am**

**INSTRUCTOR:**

Eric Oxford

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Office Hours: Mon - Fri: 7:00-7:25am, 2:00-2:40pm; or by appointment

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**COURSE DESCRIPTION:**

This course uses investigation, group work, projects, student presentations and the student's writing to focus on qualitative and quantitative research-based statistical studies.

**OBJECTIVES:**

Students will be able to:

- A. Make statistical inferences based on collected research
- B. Design their own research-based study
- C. Evaluate and critique previous research
- D. Examine the world's findings and ideas with a critical lens
- E. Interpret qualitative and quantitative data
- F. Master the role of an interviewer and field observer

**TEXTBOOKS & READING:**

All reading material will be provided to the student, and/or can be found on the DRIVE Website, on the Statistics class page.

**COURSE STRUCTURE:**

This course consists of a combination of lecture, discussion, and small-group learning. It is essential that students maintain a consistency of learning and work completion in the classroom, as each concept builds upon the previous one. Students will spend most of their time working in groups and evaluating each other's written reports.

**ASSESSMENTS:**

The course is based on total number of points at the end of each quarter. Each assessment will hold its own weight, and will look similar to the following:

Daily Assignments/Worksheets:	15 points
Group/Class Participation:	50 points

Written Drafts of Reports:	100 points
Quiz (in-school or take-home)	100 points
Test	200 points
Projects/Final Reports	200+ points

### **ATTENDANCE:**

Attendance is required. In the event of illness or other legitimate reason for excusal, please provide a doctor's note or other form of written notice. Students who miss a class will be responsible for completing the missed assignment on their own time, or during make-up classes, which will be provided at the discretion of the teacher.

### **SCHEDULE of TOPICS and ASSIGNMENTS\***

1. *Introduction to Statistics and Research Methods*
2. *The Goals and Purpose of Research*
3. *Types of Studies*
4. *Qualitative vs. Quantitative Research*
5. *Behavior and Observations: A psychological and sociological analysis*
6. *Observing for Research Purposes*
7. *Groups: Control/Treatment; Dependent/Independent*
8. *Correlation vs. Causation*
9. *It's all about the numbers: Statistical Inferences*
10. *Case Study Examples*
11. *Freakonomics*
12. *Creating Your Own Study*
13. *Ethical Research*
14. *Literature Reviews*
15. *Designing an Interview*
16. *Field Observations - Qualitative Studies*
17. *The Data - Quantitative Studies*
18. *Working as a Team: Delegating tasks*
19. *The Grand Finale: Presenting Your Findings*

*\*The teacher reserves the right to change the syllabus, based on pace of student learning and time constraints.*

### **GRADING:**

Your final grade will be determined by attendance, participation and quality of written work. The policy is as follows:

#### Grading Criteria

A+/A	Exemplary academic work
A-	Very good quality academic work with minor areas of weakness identified
B+	Satisfactory academic work with one or two important weaknesses identified

B/B-	Satisfactory academic work, a few major weaknesses identified
C+/C	Acceptable work, some major weaknesses identified
C-/D+	Minimally acceptable work, a majority of significant weaknesses identified
F	Unacceptable; Does not meet criteria sufficient for high school quality

### **PLAGIARISM:**

Plagiarism occurs when a sequence of ideas is transferred from a source to a paper without the process of digestion, integration and reorganization in the writer's mind, and without acknowledgment in the paper.

Plagiarism is committed if students submit as their own work:

1. Part or all of a written or spoken assignment copied from another person's manuscript or notes;
2. Part or all of an assignment copied or paraphrased from a source such as a book, magazine or website;
3. The sequence of ideas, arrangement of material or pattern of thought of someone else, even though they are expressed in one's own words.

A student is an accomplice of plagiarism and equally guilty if:

1. One's paper, in outline or finished form, is allowed to be copied and submitted as the work of another;
2. One prepares a written assignment for another student;
3. One keeps or contributes to a file of papers or speeches with the clear intent that these papers or speeches be copied and submitted as the work of anyone other than the author.

**Academic Dishonesty:** Academic dishonesty is regarded as a major violation of both the academic and ethical principles of this community and may result in a failing grade or suspension. Academic dishonesty includes plagiarism, cheating (whether in or out of the classroom), and abuse or misuse of educational (books, magazines, websites) materials when such abuse or misuse can be related to course requirements.

### **EXPECTED CLASSROOM BEHAVIOR:**

Classroom expectations include:

1. Participating in class activities
2. Respecting the diversity of cultures, opinions, viewpoints in the classroom
3. Listening to fellow students, professors, and lecturers with respect

4. Arriving on time, prepared for class
5. Attending for the duration of class