

Metropolitan Business Academy

Statistics for Social Justice Course Syllabus

Teacher Contact Info:

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<http://StatsForSocialJustice.weebly.com>

After school hours are posted on room 207's bulletin board and the website each week

Course Overview:

The goal of this course is to interpret and apply statistics and probability concepts in order to analyze data, justify conclusions, and make inferences. We will focus on how statistics can be used to reveal and correct social injustices through persuasion, predicting, and proposing policy changes.

Content Standards:

1. Summarize, represent, and interpret data.
2. Make inferences and justify conclusions from sample surveys, experiments or observational studies.
3. Frame questions, make predictions, and design and use data collection and analysis strategies.
4. Make decisions by using expected values or by comparing probabilities.
5. Compute probabilities and interpret data using rules of probability, conditional probability, and independence.

21st Century Competencies:

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| 1. Problem Solving and Critical Thinking | 4. Creativity and Innovation |
| 2. Accessing and Analyzing Information | 5. Initiative, Leadership and Accountability |
| 3. Communication and Collaboration | 6. Citizenship and Responsibility |

Performance Task Chart:

Title of Performance Task	Description of Performance Task	Content Standards met by Performance Task	21st Century Competencies met by Performance Task
Mastery Tests*	Specific tests on statistical skills	#1 - 5	#1
Problems of the Month*	Solving & writing up the solution and process of an unusual problem	#1 - 5	#1 - 6
Social Justice Project #1: Infographic	Create an infographic to persuade a designated audience on a social justice topic of choice using statistics	#1, 3	#2, 3, 6
Social Justice Project #2: Exploring Biases	Gather real world data to prove or disprove bias in a social justice topic of choice & present your findings	#1 - 5	#1 - 6
Social Justice Project #3: Propose a Policy Change*	Design & implement a survey or experiment to gather quantitative data to support a policy change in school, city, etc.	#1 - 3	#1 - 6

• Indicates Major Tasks for class

Portfolio Criteria:

Each trimester, you will gather examples of your best work for your portfolio.

Trimester 1	Trimester 2	Trimester 3
Mastery Tests 1 - 3: 1. Fundamentals of Statistics 2. Understanding Data 3. Displaying & Describing Categorical Data	Mastery Tests 4 & 5: 4. Displaying Quantitative Data 5. Describing & Analyzing Quantitative Data 6. Probability Midterm PBAT	Mastery Tests 7 - 9: 7. Standard Deviation 8. Normal Distribution 9. Correlation Final Exam PBAT
Infographic Project	Exploring Biases Project	Make a Proposal Project
Reflection on Political Infographic Project	Reflection on Proposal Project	Reflection on Exploring Biases Project
Teacher for a Problem & Reflection	Teacher for a Problem & Reflection	Teacher for a Problem & Reflection

How you will be graded:

This course uses mastery-based grading. On Powerschool you will see mastery codes, a green checkmark, or a 0. A green checkmark means the item is complete and has been handed in. A zero (0) means the item has not been turned in or completed — including assignments you’ve missed due to absences! The zero (0) is a placeholder; it is replaced with an NE (No Evidence) at the end of the trimester. Your goal is to reach competent or above on all major tasks for the year.

Mastery Language Abbreviations	Mastery Language	Progression to Meeting Standard	Standard Grading Equivalent
XE	Exemplary	Exceeds Standard with Distinction	100
CO-XE	Competent-Exemplary	Exceeds Standard (revise for exemplary)	93
CO	Competent	Meets Standard (revise for exemplary)	85
EM	Emerging	Approaches Standard (needs revision)	65
NY	Novice	Not Yet (needs revision)	60
NE	No Evidence	No Evidence Yet (need to complete/revise)	50

How to Learn Math

Math is all about making mistakes! When you learn a new skill, you have to practice it, you’re quizzed on it, you make mistakes, you revise those mistakes, practice some more, and are quizzed on it again. We love mistakes in math — it’s proof of your progress! We expect you to retake and revise all major tasks until you reach Competent or Exemplary.

Daily Math Class

- Do Now & Teacher for a Problem - A Do Now will be on the board at the beginning of every class with a 10 minute timer. These will be the entry into our daily work and will often be key to understanding where you are before we learn something new. In addition, you will also choose 2 of the Do Now questions to present to the class as the Teacher for a Problem each trimester.
- Classwork - During class time, we will be working on skills in a variety of ways: group work, independent practice, inquiry tasks, games, and class discussions. You are expected to fully participate and complete all given classwork. Sometimes you will have a Mastery Exit Ticket. These are quizzes of the skills on the upcoming Mastery Tests. They will be recorded in Powerschool with a mastery code to give you and your parents a sense of your current mastery level of the content. They are temporary grades that are replaced by the scores on the Mastery Tests.
- Daily 3 - At the end of class, there will be 3 arithmetic questions as a “cool down” and a way to build up number sense. Stamps for completing these will be given the following class as I give stamps for the Do Now.

Notebook

You are upperclassmen, getting ready to move on to college and jobs. Because of that, I will not dictate an organization method for you. You are expected to keep and bring to class an organized notebook that is either only used for this class OR has a designated section for this class. You will also want a folder or a binder to keep track of handouts. This folder or binder can be for multiple classes — whatever works best for you.

Website

This class has a website: <http://StatsForSocialJustice.weebly.com>. I update the website every Sunday to reflect the coming week’s schedule. If you look under the tab “All the Work,” you will find ALL of the work for the class, organized by unit. As the unit progresses, I will post everything you need there. *If you are absent, it is your responsibility to get the work you missed and see me if you have questions.*

Honors

This course is automatically an Honors course, therefore there is not an option for an Honors Contract.

Revision

Your goal is to achieve mastery or above on all the major tasks in stats class. It’s difficult to master something and that process requires revision. You should expect to polish and revise your work, just like drafts of English papers. I am here to help you, but you must show up and try; I can’t do it for you.

If you do not meet or exceed standard on a skill, you may revise it after completing the following steps:

1. Completing an Error Analysis sheet (for mastery tests)
2. Correctly completing the Homework for the skill

If you do not get a competent or above on a Problem of the Month, you may revise it by completing these steps:

1. Reading the feedback I have given you
2. Attending an After-School Support session or Academic Advisory with me

For more information on our school wide policies about Mastery Based Learning and Grading, please reference the Metropolitan Business Academy Student-Parent Handbook and the Guiding Principles of Mastery Learning and Mastery Grading at www.metropolitanbusinessacademy.org.