**Geometry 2019 - 2020**

***Who:*** *Ms. Mougharbel*

***What:*** *Geometry*

***Where:*** *Room 342*

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**Course Description:**

In this course scholars will explore congruence, similarity, right triangles, circles, basic trigonometry, expressing geometric properties with equations, geometric measurement and dimension, and modeling with geometry. Scholar will make sense of problems and solve them with reasoning that is abstract and quantitative. Scholars will construct viable arguments and critique reasoning of others by using mathematical models and appropriate strategic tools. Scholars will actively attend to precision and look for and make use of structure and express regularity in repeated reasoning.

**Learning Objectives:**

By the end of this course scholars will be able to:

* Experiment with transformations in the plane
* Understand congruence in terms of rigid motions
* Prove geometric theorems
* Make geometric constructions
* Understand similarity in terms of similarity transformations
* Prove theorems involving similarity
* Define trigonometric ratios and solve problems involving right triangles
* Apply trigonometry to general triangles
* Understand and apply theorems about circles
* Find arc lengths and areas of sectors of circles
* Translate between the geometric description and the equation for a conic section
* Use coordinates to prove simple geometric theorems algebraically
* Explain volume formulas and use them to solve problems
* Visualize relationships between two-dimensional and three-dimensional objects
* Apply geometric concepts in modeling situations

**Course Materials:**

*(Required)*

* Graphing Calculator
* Compass
* Protractor
* Ruler
* Pencil and/or pen
* Paper for note taking and homework. (Graph paper is recommended in addition to lined)
* Binder or notebook for notes
* Dry Erase Marker

**Distribution of points:**

To earn credit for the course, a scholar must earn a C- (70%) or higher. This means a scholar must earn a minimum of 700 points to pass the class.

**Math Department Weighted Grade Scale:**

*Citizenship – 10%*

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| --- | --- |
| **Important Dates** | **Reason** |
| 8/21/19 | Quiz 1 |
| 9/04/19 | Exam 1 |
| 9/18/19 | Quiz 2 |
| 10/02/19 | Exam 2 |
| 10/23/19 | Quiz 3 |
| 11/6/19 | Exam 3 |
| 11/20/19 | Quiz 4 |
| 12/11/19 | Quiz 5 |
| 5/18/19 | Midterm Exam |
| 01/15/20 | Quiz 6 |
| 01/29/20 | Exam 4 |
| 02/12/20 | Quiz 7 |
| 02/26/20 | Exam 5 |
| 03/18/20 | Quiz 8 |
| 04/01/20 | Exam 6 |
| 04/22/20 | Quiz 9 |
| 05/06/20 | Quiz 10 |
| 05/20/20 | Final Exam |

*Assignments – 30%*

*Quizzes – 15%*

*Regular Exams – 25%*

*Final Exam 2 – 20%*

970-1000 = A+

940-969 = A

900-939 = A-

870-899 = B+

840-869 = B

800-839 = B-

770-799 = C+

740-769 = C

700-739 = C-

670-699 = D+

640-669 = D

600-639 = D-

Below – 599 = F

**Exams**

**Regular Exams:** Are NOT CUMULATIVE and will be administered about every four weeks. These are worth 100 points each. There will be three regular exams administered through-out the semester. A 3inx5in note card with notes and graphing/scientific calculators are allowed during the exam. Phones and other electronic devices are not allowed during an exam.

**Final Exam**

**The Final Exam:** is a CUMULATIVE EXAM and will be administered on the last day of class. Scholars will be allowed a 3inx5in note card and a graphing/scientific calculators. Phones and other electronic devices are not allowed during the final exam. The final exam is required; therefore, if scholar will not be present of the last day of class, please make arrangements to take exam early. The final exam score may replace the lowest regular exam score if the regular exam score is lower than the final exam score. For example if a scholar scored a 70% as their lowest regular exam score and their final is a 90% then that 70% also turns into a 90%.

**Quizzes**

**Quizzes:** Quizzes will be given about every two weeks and will be worth 25 points each. These quizzes may be completed with one partner and are encouraged. Scholars will have thirty minutes to complete the quiz with their partner. These quizzes will act as checkpoints for the scholars to figure out what they know and what they are unsure about before the exam that corresponds with them. These quizzes are also created for scholars to help each other, meaning if one does not know how to complete the problem the other may teach them. We learn best by teaching.

**Homework**

**Homework:** Homework will be given twice a week (every class). These assignments will run anywhere between 20-30 questions with the exception of study guides which tend to run about 40-50 questions. Each homework assignment will be due the following class period unless stated otherwise. *Late homework will be accepted for half credit until the last week of the semester.* Scholars have the option of emailing homework by 11:59pm of the due date for full credit. Homework must have work *clearly* shown to receive credit.

**Bellwork**

**Bellwork:** Bellwork will be administered daily in the first 5-10 minutes of class and will be worth 5 points each. It will consist of 2-4 questions from previously taught material to check scholars understanding of the material. These should be done in their notebook and kept as notes. Scholars will be required to participate by coming up to the board to complete the problems throughout the semester to earn full bellwork credit. Scholars will be chosen at random.

**Citizenship**

**Citizenship:** Citizenship points are awarded monthly for scholar’s ability to be respectful to peers/teachers, be prepared for class, and participate in class. Not coming into class with their homework complete, talking during class, or being disruptive in general will result in loss of points.

**Extra Credit**

**Extra Credit:** Must be earned throughout the semester; therefore, there will be no last minute extra credit opportunities. The two extra credit opportunities that will be given are for *perfect attendance* and *100% homework turn in*. These extra credit bonuses will be awarded on the last day of class. Each extra credit bonus will be worth 10 points.

*Please detach and return below.*

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, have read and understand the terms and agreements of this syllabus.

Student Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_