

Barnegat High School

Geometry CP - Syllabus

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| **Course Information** | **Teacher Information** |
| Geometry CP  | Name(s): Mr. Kevin Liston & Mr. Brian Fitzpatrick |
| Full Year  | Phone: (609)660-7510 |
| Class Location: Room C206 | Email: kliston@barnegatschools.combfitzpatrick@barnegatschools.com |
|  | Teacher Website: barnegatschools.com |

**Course Description:**

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| Using the tools of geometry and your creative powers; you will discover the geometric relationships of patterns, congruence, similarity, parallelism, area, volume, transformations, polygons, circles, and spheres!Effective mathematics education provides students with a balanced instructional program. In such a program, students become proficient in basic computational skills and procedures, develop conceptual understandings, and become skilled at problem solving. Standards-based mathematics instruction starts with basic material and increases in scope and content as the years progress. The curriculum is aligned to the NJSLS for Mathematics. Activities outlined in this curriculum infuse the Standards for Mathematical Practice. In alignment to the content and practice standards, geometry students will extend their knowledge of mathematics as they learn to represent and compare complex numbers, polynomials, periodic models and inference making. Students use functions to model real world applications and their knowledge of their properties to explain the world around them. They will summarize, represent and interpret data to make inferences and justify conclusions. Students will use numerical, graphical, and algebraic models to solve problems. |

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| **Course Competencies/ Learning Objectives**Students who successfully complete Geometry CP will be competent in the following areas:

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| * Students will be able to:
	+ *recognize, name, draw, sketch, label and communicate geometric figures.*
	+ *prove geometric relationships using given information, definitions, properties, postulates and theorems.*
	+ *Define and use inductive & deductive reasoning in problem solving*
	+ *Define angles including supplementary, complementary and right angle relationships*
	+ *Model real life situations using lines and angles*
	+ *Identify and solve problems using pairs of angles formed by transversals*
	+ *Use the rules for transformations*
	+ *Identify congruent transformations*
	+ *Utilize triangle congruence shortcuts including SSS, SAS, ASA, SAA, and HL*
	+ *Use the coordinate plane to prove geometric relationships*
	+ *Use special lines in triangles such as median, perpendicular bisector, centroid, incenter, and midsegment to prove triangles congruent*
	+ *Use similarity statement to prove multiple triangles similar*
	+ *Prove polygons similar by using similarity shortcuts*
	+ *Use the Pythagorean Theorem and its converse*
	+ *Solve right triangles using the Pythagorean Theorem and trig ratios.*
	+ *Find and use the interior and exterior angle measures of polygons*
	+ *Use properties of parallelograms, rhombi, rectangles, squares, trapezoids, and kites*
	+ *Use coordinate geometry to identify special types of parallelograms*
	+ *Use chords of circles to find lengths and arc measures in circles*
	+ *Use inscribed angles and circumscribed angles to find angle and arc measures in circles*
	+ *Write and graph equations in the coordinate plane*
	+ *Classify and describe solids and describe cross sections of solids*
	+ *Find and use volumes of prisms, cylinders, pyramids, cones, spheres, and composite figures*
	+ *Find surface areas of right cones and spheres*
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**Course Texts / Online Resources**

In Geometry CP, we will be using the textbook “Big Ideas”, which can be accessed at home online (see login information below).

**Block 1A Block 3B**

**Google Classroom: ue75yq** **Google Classroom: ldwis53**

**Online Textbook/Homework: Online Textbook/Homework:**

[www.bigideasmath.com](http://www.bigideasmath.com) [www.bigideasmath.com](http://www.bigideasmath.com)

Access Code: KJ4E-4J3N-4RZK Access Code: 8TYE-RE3T-8MRE

**Required Materials**

Textbook (provided by school), Binder, Notebook, Writing Utensil (Pencil Preferred), and a calculator. **It is highly recommended that you purchase your own geometric compass.**

**Attendance Policy**

Regular and prompt class attendance is an essential part of the educational experience. The Barnegat Township School District expects students to be responsible and exercise good judgment regarding attendance and absences. Students accept full responsibility for ensuring that they complete any/all work missed due to absences.

**Course Topic Outline**

 Please find a list of the units for this course:

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| **Content Area: Mathematics** |
| **Course Title: Geometry CP** | **Grade Level: 10** |
| Unit 1: Building Blocks/Reasoning in Geometry | 15 days/7.5 teaching days |
| Unit 2: Reasoning and Proofs | 13 days/6.5 teaching days |
| Unit 3: Parallel & Perpendicular Lines | 14 days/7 teaching days |
| Unit 4: Transformations | 12 days/6 teaching days |
| Unit 5: Congruence in Triangles | 13 days/6.5 teaching days |
| Unit 6: Indirect Proofs | 12 days/6 teaching days |
| Unit 7: Similarity | 8 days/4 teaching days |
| Unit 8: Right Triangles/Trigonometry | 13 days/6.5 teaching days |
| Unit 9: Quadrilaterals and Other Polygons | 13 days/6.5 teaching days |
| Unit 10: Circles | 15 days/7.5 teaching days |
| Unit 11: Surface Area/Volume | 11 days/5.5 teaching days |
| Unit 12: Probability | 9 days/4.5 teaching days |

**Student Grades**

The grading system for this course is based on the category weights listed in each department’s policy. For this course, those weights are listed below. Each marking period, students will have a minimum of four (4) Major Assessments and eight (8) Minor Assessments (explained below). Homework is graded as part of Course Participation, which is assessed twice (2x) per marking period using the district rubric.

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| Major Assessments | - | 50% of marking period grade |
| Minor Assessments | - | 30% of marking period grade |
| Course Participation | - | 15% of marking period grade |
| Benchmark  | - | 05% of marking period grade |

Please note: the above areas are used as the basis for 80% of your grade for the course; the Midterm and Final exam will constitute the remaining 20% of your grade.

• Examples of Major Assessments include items that are summative in nature, such as: tests, projects, research papers, prose-constructed response timed writings, formal presentations, reports, Socratic seminars, or any other type of assessment used to capture evidence of learning at the culmination of a unit of study.

• Examples of Minor Assessments include items that are formative in nature, such as: quizzes, reading comprehension checks, response journals, exit tickets, small-scale research activities, reading logs, in class worksheets, or any other type of assessment that is diagnostic in nature and used to guide instruction and provide ongoing feedback to students.

• Note: grades for individual assignments are entered into Genesis for the marking period in which the assignment is collected, and not a subsequent marking period.

• Extra Credit will only be available for assignments that have been approved ahead of time by the teacher and department supervisor.

• In this course, it is expected that students will submit only their best work, and teachers reserve the right not to accept work that is substantially below what a student is capable of producing.

• *Please speak to your teacher about the opportunity for earned Second Chances on certain Major Assessments.*

**Course Participation Rubric**

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|  | **Academic Social Skills** | **Readiness to Learn / Study Skills** | **Homework** | **Classwork**  | **21st Century College and Career Readiness** |
| **Meeting Expectations** | **20 points** **Student consistently demonstrates high levels of age-appropriate academic social skills by showing initiative and independence in all of the components below:** **· Self-advocacy****· Persistence ”grit”****· Identifying one’s own needs and communicates needs to others****Student’s classroom behavior is focused, on-task, and serves as a role model for others; the student does not require support from teacher, parents or others.** | **20 points** **Student****· consistently arrives prepared for class and ready to learn;** **· demonstrates high levels of organization, motivation, and ownership of his/her learning.** **Student consistently produces notes and other materials that demonstrate: effort to learn &** **• identification of the curriculum’s main ideas and important supporting details.**  | **20 points** **Student consistently completes the assigned homework and rarely misses a task, if at all.** **Student consistently expends his/her best efforts to complete assigned tasks.** **Homework consistently reflects high levels of care and pride in work.** **Homework is consistently done in a manner that advances learning.**  | **20 points** **Student** **· consistently completes assigned classwork tasks;****· voluntarily and actively participates in classroom activities on a consistent basis;****· consistently remains focused and on task;** **· contributes to class discussions in a meaningful way, by actively listening, asking questions, or sustaining discussion;** **· consistently demonstrates leadership in collaborative activities.**  | **20 points** **Student consistently demonstrates competency in the following NJSLS Career Ready Practices.** **CRP1.** **CRP2.** **CRP4.** **CRP5.** **CRP6.** **CRP7.** **CRP8.** **CRP9.** **CRP11.** **CRP12.****\*A full description of these items is listed at the bottom of the rubric.**  |
| **Approaching Expectations** | **15 Points** **Student usually demonstrates age-appropriate academic social skills such as persistence or self-advocacy, but may require teacher prompting or direction.** **Student’s classroom behavior is generally focused and on-task, but sometimes requires redirection or support from teacher, parents, or others.** | **15 Points****Student usually arrives prepared for class and/or demonstrates developing levels of organization, motivation, ownership of learning.** **Student frequently produces notes and materials that demonstrate effort to learn and identification of mean ideas, but may also require prompting and direction.**  | **15 Points****Student frequently completes the assigned homework but occasionally misses tasks, or tasks are completed with inconsistent effort .** **Homework usually reflects high levels of care and pride in work, but not always.** **Homework is generally done in a manner that advances learning.**  | **15 Points****Student** **· usually completes assigned classwork tasks and generally produces his/her best work;****· frequently participates in classroom activities but sometimes requires direction and prompting;** **· during class discussions, usually contributes by actively listening, responding, and/or asking questions.**  | **15 Points****Student frequently demonstrates competency in the following NJSLS Career Ready Practices, but may need direction and support.** **CRP1.** **CRP2.** **CRP4.** **CRP5.** **CRP6.** **CRP7.** **CRP8.** **CRP9.** **CRP11.** **CRP12.** |
| **Not****Meeting****Expectations** | **10 Points****Student occasionally demonstrates age-appropriate academic social skills such as persistence or self-advocacy, and/or often requires teacher prompting or direction.** **Student’s classroom behavior is generally unfocused and off-task, and frequently requires redirection or support from the teacher, parents, or others.** | **10 Points****Student rarely arrives prepared for class and/or demonstrates limited levels of organization, motivation, ownership of learning.** **Student seldomly produces notes and materials that demonstrate effort to learn and identification of mean ideas, and often requires prompting and direction.**  | **10 Points****Student rarely completes the assigned homework and frequently misses tasks, or tasks are completed with limited effort .** **Homework rarely reflects high levels of care and pride in work.** **Homework is generally not done in a manner that advances learning.**  | **10 Points****Student** **· seldomly completes assigned classwork tasks and generally does not produce his/her best work;****· usually does not participate in classroom activities and often requires teacher direction and prompting;** **· during class discussions, usually does not contribute by actively listening, responding, and/or asking questions.** | **10 Points****Student rarely demonstrates competency in the following NJSLS Career Ready Practices, and needs direction and support.** **CRP1.** **CRP2.** **CRP4.** **CRP5.** **CRP6.** **CRP7.** **CRP8.** **CRP9.** **CRP11.** **CRP12.** |
| **\*New Jersey Student Learning Standards for 21st Century Life & Careers / Career Ready Practices** **CRP1. Act as a responsible and contributing citizen and employee.****CRP2. Apply appropriate academic and technical skills.** **CRP4. Communicate clearly and effectively and with reason.****CRP5. Consider the environmental, social and economic impacts of decisions.** **CRP6. Demonstrate creativity and innovation.** **CRP7. Employ valid and reliable research strategies.** **CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.** **CRP9. Model integrity, ethical leadership and effective management.****CRP11. Use technology to enhance productivity.****CRP12. Work productively in teams while using cultural global competence.** |

**Plagiarism, Cheating, and Academic Integrity**

The Barnegat Township School District places a strong emphasis on students’ integrity, and the district will not tolerate instances of academic dishonesty. Plagiarism is the practice of copying words, sentences, images, or ideas for use in written or oral assessments without giving proper credit to the source. Cheating is defined as the giving or receiving of illegal help on anything that has been determined by the teacher to be an individual effort. Both are considered serious offenses and are subject to consequences described in the Student Handbook and Board Policy #5701.

**Classroom Rules**

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| #1: RESPECT | -YOURSELF & YOUR FUTURE-YOUR CLASSMATES & THEIR RIGHT TO LEARN-YOUR SCHOOL”S PROPERTY & COMMUNITY |
| #2: FOLLOW | -CLASS PROCEDURES-ALL DIRECTIONS-SCHOOL POLICIES |
| #3: RAISE | -YOUR HAND\*YOUR CONFIDENCE\*YOUR EXPECTATIONS |

**Extra Help and Support**

Occasionally, students will require additional help to master the content and skills in this course. If you need additional help, there are a variety of options for you, including:

* Scheduling a mutually convenient time for extra help with Mr. Liston
* Peer tutoring from NHS / NJHS students
* Free online tutoring with Brainfuse (available from the Barnegat Library website)

As your teacher, I am committed to your success. If you need help, please ask!

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I have read and understand the syllabus for Geometry CP.

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Student Signature Print Name

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Parent/Guardian Signature Print Name