

# NOUVEL CATHOLIC CENTRAL HIGH SCHOOL

## HONORS GEOMETRY

### COURSE SYLLABUS

<b>COURSE DESCRIPTION:</b>	The aim of the course is to study Geometry as a mathematical system through the deductive development of relationships in two dimensional planes and three dimensional space. All topics will be studied in depth with emphasis on proofs and the progression of logical thinking. This course involves both face-to-face and online learning. Students should possess the ability to work independently, think critically and communicate effectively both online and in the classroom.
<b>MAJOR COURSE GOALS:</b>	<ol style="list-style-type: none"><li>1. The Learner will identify inductive and deductive reasoning and recognize the foundations of Euclidean geometry.</li><li>2. The Learner will know and use the terms of basic logic and apply them to the basic structure of a proof.</li><li>3. The Learner will solve multistep problems, write proofs, and demonstrate basic geometric constructions involving line segments and angles, congruence and similarity.</li><li>4. The Learner will solve multistep problems, construct proofs, and demonstrate geometric constructions involving triangles and their properties.</li><li>5. The Learner will solve multistep problems, write proofs, and demonstrate relationships involving polygons, perimeters and areas.</li><li>6. The Learner will utilize the Pythagorean Theorem and trigonometric ratios and laws to solve problems involving right triangles.</li><li>7. The Learner will solve multistep problems and identify and justify arguments related to circles and their components (lines, segments, angles, and arcs).</li><li>8. The Learner will identify, evaluate, and perform transformations.</li></ol>
<b>COURSE ASSESSMENT PLAN:</b>	The student will demonstrate their attainment of the course goals through a variety of assessments. Each chapter will have at least one summative assessment. Chapter assessments will include show-your-work problems and short answer conceptual questions. Some chapters will also have an extension activity to be completed outside the classroom. Frequent formative assessments will be used throughout the course to measure student progress towards the course goals.

	<p>Course grades are calculated on a percentage basis as follows:</p> <p>80% Assessment (tests and other assessments)</p> <p>20% Assignments (problem sets, lesson reflections, class activities, etc...).</p> <p>A comprehensive exam will be given at the end of each semester. Semester exams will count as 20% of the semester grade.</p>
<b>SUPPLIES AND MATERIALS NEEDED:</b>	<ul style="list-style-type: none"> <li>• 3-ring binder with dividers or Folder/Notebook</li> <li>• Lined paper and graph paper</li> <li>• Pencils and erasers (ink is not allowed)</li> <li>• Scientific calculator</li> <li>• Geometer</li> </ul>
<b>EXTRA HELP:</b>	<p>Before and after school extra help can be arranged by appointment. Students are encouraged to come in for extra help as soon as the need arises. All make-up tests and quizzes must take place before or after school. Students are also encouraged to email the teacher or post questions to the online learning platform at anytime for assistance.</p>
<b>INSTRUCTIONAL PHILOSOPHY:</b>	<p>Student participation is at the core of every teaching strategy used in the course. Some class periods will have students review past material during a warm-up and homework check, learn new material through an interactive face-to-face lesson or group investigation, and demonstrate understanding through a closure activity. On these days, students will then work through practice problems at home. At other times during the course, the class routine will be “flipped”. During flipped lessons, students will learn the concept through an online lesson at home and then work through problems during class time.</p>
<b>INSTRUCTIONAL ACTIVITIES AND MAJOR COURSE PROJECTS:</b>	<p>A variety of learning styles will be addressed through instructional activities such as homework problems, group investigations, hands-on activities, interactive face-to-face lessons, online tutorials, warm-ups and exit tickets. Graphic organizers and interactive notebooks are used regularly to connect overall mathematical concepts. Students will also be assigned extension activities throughout the year. Extension activities are designed to help the student explore geometry in the real world.</p>

<b>CLASSROOM EXPECTATIONS:</b>	<p>The student is expected to...</p> <ul style="list-style-type: none"> <li>• Be fully prepared for class and in their seats when the bell rings.</li> <li>• Participate fully in all class activities.</li> <li>• Show respect toward each other, the teacher, and school property at all times.</li> <li>• Take responsibility for their performance by asking questions and seeking additional help when needed.</li> <li>• Demonstrate an honors level attitude with a desire to truly understand the material and a willingness to be challenged.</li> <li>• Refrain from using any personal electronic devices in the classroom unless directed by the teacher.</li> <li>• Be familiar with and adhere to all policies outlined in the Student Handbook.</li> </ul>
<b>HOMEWORK POLICY AND GRADING SCALE:</b>	<p>Practice is essential to success in Geometry. Every problem is different. The more exposure to geometry problems, the easier they are to solve. Homework practice problems or online tutorials are assigned almost every day and must be completed by the next day. Incomplete assignments are not accepted. Every problem assigned should be attempted and all work must be shown. Homework will be graded by a combination of completeness and correctness. Letter grades are determined by the grading scale listed in the Student Handbook.</p>
<b>CONTACT INFORMATION:</b>	
Teacher:	Lisa Moore
Email Address:	lmoore@sacschools.org
Classroom Phone:	989-399-2442

