

NOUVEL CATHOLIC CENTRAL HIGH SCHOOL

GEOMETRY

COURSE SYLLABUS

COURSE DESCRIPTION:	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. 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.
MAJOR COURSE GOALS:	<ol style="list-style-type: none">1. The Learner will identify inductive and deductive reasoning and recognize the foundations of Euclidean geometry.2. The Learner will know and use the terms of basic logic and apply them to the basic structure of a proof.3. The Learner will solve multistep problems, write proofs, and demonstrate basic geometric constructions involving line segments and angles, congruence and similarity.4. The Learner will solve multistep problems, construct proofs, and demonstrate geometric constructions involving triangles and their properties.5. The Learner will solve multistep problems, write proofs, and demonstrate relationships involving polygons, perimeters and areas.6. The Learner will utilize the Pythagorean Theorem and trigonometric ratios and laws to solve problems involving right triangles.7. The Learner will solve multistep problems and identify and justify arguments related to circles and their components (lines, segments, angles, and arcs).8. The Learner will identify, evaluate, and perform transformations.
COURSE ASSESSMENT PLAN:	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 test). Chapter assessments will include show-your-work problems and short answer conceptual questions. Frequent formative assessments such as quizzes, homework problems, in class activities, will be used throughout the course to measure student progress towards the course goals.

	<p>Course grades will be calculated on a percentage basis as follows:</p> <p>70% Assessments (chapter tests and other assessments)</p> <p>30% 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>
<p>SUPPLIES AND MATERIALS NEEDED:</p>	<ul style="list-style-type: none"> • 3-ring binder with dividers OR spiral notebook and folder combination • Lined paper and graph paper • Post-it Notes • Pencils and erasers (ink is not allowed) • Scientific calculator with trigonometry functions • Geometer (purchased in class)
<p>EXTRA HELP:</p>	<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>
<p>INSTRUCTIONAL PHILOSOPHY:</p>	<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>
<p>INSTRUCTIONAL ACTIVITIES:</p>	<p>A variety of learning styles will be addressed through instructional activities such as practice problems, group investigations, hands-on activities, interactive face-to-face lessons, online tutorials, warm-ups and exit tickets. Graphic organizers will be used regularly to connect overall mathematical concepts. Students will be assigned extension activities at various times throughout the year. Extension activities are designed to help the student explore geometry in the real world.</p>

CLASSROOM EXPECTATIONS:	<p>The student is expected to...</p> <ul style="list-style-type: none"> • Be fully prepared for class and in their seats when the bell rings. • Participate fully in all class activities. • Show respect toward each other, the teacher, and school property at all times. • Take responsibility for their performance by asking questions and seeking additional help when needed. • Refrain from using any personal electronic device in the classroom unless directed by the teacher. • Be familiar with and adhere to all policies outlined in the Student Handbook
HOMEWORK POLICY AND GRADING SCALE:	<p>Practice is essential to success in Geometry. Every problem is different. The more exposure to geometry problems, the better you get at solving them. 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. Course letter grades are determined by the grading scale listed in the Student Handbook.</p>
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