NOUVEL CATHOLIC CENTRAL HIGH SCHOOL

HONORS ALGEBRA I

COURSE SYLLABUS

2017-2018

COURSE DESCRIPTION:	Honors Algebra I is a one-year math course for ninth and tenth grade students with strong math and problem solving skills. The principles of Honors Algebra I serve as the foundation for all higher level math and science courses. Through equations, applications, and graphical representation, the course introduces students to the linear, quadratic, and exponential function families.
MAJOR COURSE GOALS:	Extend the properties of exponents to rational exponents. CCSS.Math.Content.HSN.RN.A.1 CCSS.Math.Content.HSN.RN.A.2 Use properties of rational and irrational numbers. CCSS.Math.Content.HSN.RN.B.3 Reason quantitatively and use units to solve problems. CCSS.Math.Content.HSN.Q.A.1 Interpret the structure of expressions. CCSS.Math.Content.HSA.SSE.A.2 Write expressions in equivalent forms to solve problems. CCSS.Math.Content.HSA.SSE.B.3 CCSS.Math.Content.HSA.SSE.B.3.a CCSS.Math.Content.HSA.SSE.B.3.b CCSS.Math.Content.HSA.SSE.B.3.c Create equations that describe numbers or relationships. CCSS.Math.Content.HSA.CED.A.1 CCSS.Math.Content.HSA.CED.A.2 CCSS.Math.Content.HSA.CED.A.3 CCSS.Math.Content.HSA.CED.A.4 Understand solving equations as a process of reasoning and explain the reasoning. CCSS.Math.Content.HSA.REI.A.1 Solve equations and inequalities in one variable. CCSS.Math.Content.HSA.REI.B.3 CCSS.Math.Content.HSA.REI.B.4.b Solve systems of equations. CCSS.Math.Content.HSA.REI.C.5 CCSS.Math.Content.HSA.REI.C.6

	Represent and solve equations and inequalities graphically. CCSS.Math.Content.HSA.REI.D.10 CCSS.Math.Content.HSA.REI.D.11 CCSS.Math.Content.HSA.REI.D.12 Understand the concept of a function and use function notation. CCSS.Math.Content.HSF.IF.A.1 CCSS.Math.Content.HSF.IF.A.2 CCSS.Math.Content.HSF.IF.A.3 Interpret functions that arise in applications in terms of the context. CCSS.Math.Content.HSF.IF.B.4 CCSS.Math.Content.HSF.IF.B.5 CCSS.Math.Content.HSF.IF.B.6 Analyze functions using different representations. CCSS.Math.Content.HSF.IF.C.7.a CCSS.Math.Content.HSF.IF.C.7.b CCSS.Math.Content.HSF.IF.C.8 CCSS.Math.Content.HSF.IF.C.8.a CCSS.Math.Content.HSF.IF.C.8.b CCSS.Math.Content.HSF.IF.C.9 Build a function that models a relationship between two quantities. CCSS.Math.Content.HSF.BF.A.1.a CCSS.Math.Content.HSF.BF.A.2 Build new functions from existing functions. CCSS.Math.Content.HSF.BF.B.3 Construct and compare linear, quadratic, and exponential models and solve problems. CCSS.Math.Content.HSF.LE.A.1.b CCSS.Math.Content.HSF.LE.A.2 CCSS.Math.Content.HSF.LE.A.3 Interpret expressions for functions in terms of the situation they model. CCSS.Math.Content.HSF.LE.B.5 Summarize, represent, and interpret data on a single count or measurement variable CCSS.Math.Content.HSS.ID.A.1 CCSS.Math.Content.HSS.ID.A.2 CCSS.Math.Content.HSS.ID.A.3 Summarize, represent, and interpret data on two categorical and quantitative variables

	CCSS.Math.Content.HSS.ID.B.5 CCSS.Math.Content.HSS.ID.B.6.a CCSS.Math.Content.HSS.ID.B.6.b CCSS.Math.Content.HSS.ID.B.6.c Interpret linear models CCSS.Math.Content.HSS.ID.C.7 CCSS.Math.Content.HSS.ID.C.8 CCSS.Math.Content.HSS.ID.C.9
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 quiz and one test. Chapter assessments will include show-your-work problems and short answer conceptual questions. Course grades are calculated on a percentage basis: 70% tests and quizzes, 30% homework and other assignments. A comprehensive exam will be given at the end of each semester. Semester grades will be calculated according to school policy.
RECOMMENDED SUPPLIES AND MATERIALS:	The learner is required to bring the following to class everyday: • Text book • Loose leaf and graph paper • Pencils preferred, no pens please
EXTRA HELP:	Additional classroom teacher assistance is provided to the student before and after school upon request. Never be afraid to ask for help. Remember that your success depends on you and your effort.
INSTRUCTIONAL PHILOSOPHY:	Student participation is at the core of every teaching strategy used in the course. During each class period, students will review past material during the warm-up and homework check, learn new material through an interactive lesson or group investigation, and demonstrate understanding through a closure activity. At the honors level, extensions are frequently made to give the student a clear sense of how Algebra I concepts provide a foundation for higher levels of math and science. The honors level student is expected to have solid understanding of basic arithmetic of integers, fractions and decimals. Though calculators will be used during certain topics, they are not permitted for general use in the honors class.
INSTRUCTIONAL ACTIVITIES AND COURSE PROJECTS:	A variety of learning styles will be addressed through instructional activities such as homework problems, group investigations, hands-on activities, warm-ups and exit tickets.
CLASSROOM EXPECTATIONS:	The learner is expected to uphold the values and policies of the Nouvel Catholic Community. The Parent/Student Handbook policies are set forth to create a safe learning environment that will enable you to gain a mastery of academia and become a leader in the world. The policy will be enforced.

	• Come prepared to class every day and ready to learn. • Be in his/her assigned seat with the required materials **before the bell rings**, otherwise, he/she is marked tardy. • Contribute positively to the learning environment in the classroom. • Show respect toward self, other students, teacher and all personal/school property by words and actions. • Be in compliance with the dress code at all times. **ATTENDANCE:** Attendance is crucial. Students are expected to attend every scheduled class. It is the learner's responsibility to keep informed of any announcements, syllabus adjustments, or policy changes made during scheduled classes.
HOMEWORK POLICY AND GRADING SCALE:	Practice is *essential* to success in Honors Algebra I. • Homework is assigned each day and due the next day. • Every problem assigned should be attempted and all work must be shown. • Late homework will be accepted, unless otherwise stated, as long as it is completed outside of class time. Late work must be turned in before the completion of the chapter within which it was assigned. • Letter grades are determined by the grading scale listed in the student handbook.
CONTACT INFORMATION:	
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