Department: **Mathematics** Course Title: **Principles of Mathematics** Course #: **40427X**

DESCRIPTION OF COURSE:

Principles of Mathematics is designed to meet the needs of students who need reinforcement with previous topics in algebra and geometry. These include number theory, algebra, graphs and functions, measurement and geometry, statistics and data analysis, probability, and set theory. Optional topics include taxes, investments, credits, and budgeting. Students will take the Principles of Mathematics final exam at the end of the course.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ELIGIBLE CONTENT
Problem Solving and Critical Thinking	5 days	CC.2.2.7.B.3, A1.1.1.4.1, A2.2.1.1, A2.2.1.2, A2.2.1.3, A2.2.1.4, M11.A.2.2.1
Set Theory	7 days	A2.2.1.1.1, CC.2.2.HS.D.7
Logic	8 days	G.1.3.2.1, G.1.3.1.1
Number Theory and the Real Number System	10 days	CC.2.1.8.E.1, CC.2.1.HS.F.1, CC.2.1.HS.F.2, CC.2.1.6.E.3, CC.2.1.HS.F.2, A1.1.1.1.1, A1.1.1.1.2, A1.1.1.2.1
Equations and Inequalities	14 days	CC.2.2.HS.D.7, CC.2.2.HS.D.9, CC.2.2.HS.D.10, A1.1.3.1.1, A1.1.3.1.12 A1.1.3.1.3
Graphs, Functions, and Linear Systems	12 days	CC.2.2.HS.D.7, CC.2.2.HS.D.10, A1.1.3.2.1
Geometry	14 days	CC.2.3.HS.A.3, CC.2.3.HS.A.13, G.1.2.1.1, G.1.2.1.2, G.1.2.1.3, G.1.2.1.4, G.1.2.1.5
Counting Methods and Probability Theory	10 days	CC.2.4.HS.B.6, CC.2.4.HS.B.7, CC.2.4.HS.B.5, CC.2.4.HS.B.4, A2.2.3.2.1, A2.2.3.2.2, A2.2.3.2.3
Statistics	10 days	CC.2.4.HS.B.1, CC.2.4.HS.B.3, A1.2.3.2.1, A1.2.3.2.2

RESOURCES: Textbook: Thinking Mathematically (Pearson 2011); online graphing calculators