

High School Syllabus

Department: Mathematics

Course #: 40427X

Course Title: Principles of Mathematics

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 | 8 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 |
| Set Theory | 12 days | A2.2.1.1.1 |
| Logic | 17 days | G.1.3.2.1 |
| Number Theory and the Real Number System | 15 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 | 24 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 | 24 days | CC.2.2.HS.D.7, CC.2.2.HS.D.10, A1.1.3.2.1 |
| Geometry | 16 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 | 9 days | CC.2.4.HS.B.1, CC.2.4.HS.B.3, CC.2.4.HS.B.5, CC.2.4.HS.B.4, CC.2.4.HS.B.5, A1.2.3.2.1, A1.2.3.2.2, A1.2.3.2.3, A2.2.3.2.1 |

RESOURCES: Textbook: Thinking Mathematically (Pearson 2011); graphing calculator

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